

who first figured in the frontier wars of the Andhras and in the courts of the Kshatrapa kings in the 2nd century, and who, in course of time, gradually extended their power, at the expense of the Andhras, throughout the Dakhar, and then penetrated South India itself.

Among the scholars of the Persian school however there is no unanimity as to what Persian tribe the Pallavas belonged. Prof. Weber(5) believed that the term Pallava had more to do with *Parthian* than with *Persian*. The Arsacidan Parthians who held the extensive empire which extended from the Euphrates to the Indus, from the middle of the 2nd century B.C. to the end of the first quarter of the 3rd century A.D., were, it is well-known, overthrown by the Persian dynasty of the Sassanides in A.D. 226. Prof. Weber's contention is that the word *Pahlava* as the name of a people was foreign to the ordinary Persian, though not to the learned Persian; that in the Pahlav texts themselves it does not occur; that "the period when it passed over to the Indians, therefore, would have to be fixed for about the 2nd—4th century A.D.," and that it should be understood to mean, "not directly the Persians, who are called *Pārsikās* rather, but specially Arsacidan Parthians." It may "possibly be derived from *Parthava* (Parthian)."

This minor difference of opinion, however, does not militate against the theory generally held by this school that the immigration of the tribe to the Tamil and Telugu lands began from the border of Persia. But as regards the exact time of the immigration there are again

differences of opinion. Mr. Vincent Smith(6) was (till recently) of opinion that the movement towards the Tamil land must have taken a considerable time and perhaps ended before A.D. 150. Evidently in Mr. Smith's opinion the Pallava movement eastward had begun scores of years before their engagement with Gautamiputra in the 2nd century A.D., so that that engagement was not the first step in a forward movement, but an isolated incident which might have taken place anywhere in the Dakhan. The late Rao Bahadur Venkayyah, on the other hand, was not able to agree with this conclusion. He was of opinion that the Pallava emigration to the Tamil land, i.e., to the districts around Conjeevaram, was subsequent to, if not the outcome of, the engagement with Gautamiputra. Defeat evidently made their position in the Andhra dominions untenable, and induced them to seek better homes further south and east; and when, by the middle of the 3rd century, the Andhras ceased to be the rulers of the Dakhan, their place, he concluded, must have been taken over by the Pallavas. The latter, in other words, came to prominence in that very period of Ancient History which Mr. Vincent Smith designates *the dark era*. "Until more satisfactory evidence is forthcoming to fix definitely the date of the Pallava migration to the south," says Venkayyah, "it may be assumed that they had become established in Conjeevaram about the end of the 3rd century A.D." A support to this conclusion Mr. Venkayyah sees in the linguistic investigation of Dr. Hultzsch,(7) who points out that the earliest Pallava

(6) *Early Hist. Ind.*, In the latest edition he seems to have given up the alien theory and accepted the indigenous.

(7) *S. Ind. Inscriptions*.

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records could not be far removed in point of time from the Andhra period.

Such is the alien or rather the Persian theory of Pallava origin and early progress. The indigenous theory. The other theory is to the effect that the Pallavas were an indigenous tribe of India. The first and foremost ground for this theory is that the Pallavas themselves claim, in their records and charters, to be Kshatriyas(8) of the Bhāradvāja Gōtra and descendants of God Brahma through Aṅgiras, Brihaspati, Samyu, Bharadvāja, and the Mahābhārata heroes, Drōṇa and As'vattāman. The story is reiterated that As'vattāman had, by a celestial nymph, a son; that the child was placed, immediately after its birth, on a litter of sprouts (*Pallava*); that he in consequence came to be known as the Pallava; and that the kings of the Pallava line were his descendants(9). According to tradition there were four descendants of Sālivāhana of Pratiṣṭhāna, namely Mādhavavarma, Kulakēṭana, Nilakaṇṭha and Mukunti Pallava, and that the last of these was the founder of the Pallava line. The story goes that he was the son of Śiva himself by a girl of the mountain tribe called the Chensuars. The term *Pallava* will be seen to be, according to these legends, the name of an individual, the progenitor of the dynasty of his name. But this view is hardly tenable. The *Mahābhārata* itself and the *Purāṇas* mention, and correctly mention, that the word denoted a tribe and not an individual king. As a tribe they are indeed

(8) Almost all the charters of the Pallavas mention this fact.

(9) *Mys. Garr.*, I, 304. Mack MSS. I, cxx, cxxiv. The *Madras Manual* attributes all these to between 100 and 300 A.D. and further says that the last was the man who introduced Brahmans into the Pallava country and erected the Amaravati tope.

mentioned with the Śakas and Yavanas but they, according to Sir Walter Elliot, seem to have been "the normal inhabitants of Kuntala" and not aliens. At any rate the rendering of the term *Pallava* into Persian, he says, rests "apparently on no very exact grounds." (10) His own theory is that the application of the term *Pallava-Raja* to one of the 32 gōtras of the true pure Tamil-speaking Vellālas of Madurai, Tanjore and Arcot, the connection of the Vellālas with the Kallars and Maravas, the assumption of the title *Pallava-Raja* by the Kalla ruler of Pudukkōṭṭai, and similar facts shew that the Pallavas were a purely indigenous Dravidian race, and became later, on absorbed by, and transformed into, these castes. (11) A different theory(12) is to the effect that the Pallavas were the Kurumbas of tradition, "a fierce race so called on account of their cruelty." They conquered the Vēḍars, Irūḷas and other savage races, drove them to the mountains and settled in the extensive seaboard of the country, which afforded an opportunity of engaging in commerce with other nations. They are said at first to have had no ruler, but dissensions among them led to the choice of a chief named Komandu Kurumba Prabhu, the first king of a dynasty known as that of the Pallavas.

The majority of scholars and epigraphists however seem to be agreed as to the correctness of the Persian theory. They believe that the Pallavas were foreigners and that they established themselves by their martial skill over the effete Andhras and the weak Tamils. Superior in physical valour, they adopted

(10) *Coins of S. Ind.*, p. 42.

(11) *Ibid.*, 43. The *Madras Manual* connects them with the agricultural Pallis, p. 129. See also *S. Ind. Palaeography*, p. 36.

(12) *N. Arcot Manual*, p. 36.



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THE HISTORY OF THE PALLAVA DYNASTY.

SECTION I.

THE ORIGIN AND IMPORTANCE OF THE PALLAVAS.

AFTER the downfall of the Andhra power in the Dakhan in the third decade of the 3rd century A. D. the imperial power over the Dakhan and possibly South India seems to have fallen into the hands of a singularly powerful dynasty of kings called the Pallavas. Antiquarians and epigraphists have in vain endeavoured to trace the origin of these remarkably strong and virile people. According to one school, they were not an indigenous tribe at all, but a foreign (1) one, evidently Persian in extraction. A number of arguments have been given by scholars to prove this foreign and Persian origin. The term Pahlava

is said to be philologically Persian. The Pallavas are moreover mentioned in the (2) Purāṇas with the Hāhaya, Yavanas and other alien races of the north-west. Inscriptions further shew that they originally occupied that region, and together with the Sakas and other alien races, played frequently the part of invaders and marauders of the Andhra Empire. About 130 A. D., for instance, they were met in a military league with the Sakas and Yavanas by king Gautamiputra and kept in effective check by his martial valour. (3) Twenty years later, again, a Pahlava (4) named Suvisākha distinguished himself as a minister of the contemporary Kshatrapa Rudradāman. From all these evidences, the Pallavas have generally been pronounced by one school of historians to be a Persian tribe,

(1) See the *Mysore Gaz.*, I, 303-4 for a good summary of the whole question of the origin of the Pallavas. See also Venkayyah's *Pallavas*, (S. Ind. Assocn. pamphlet) and *Madras Manual*, I, 129.

(2) *Coins of S. India*, p. 17.
(3) *E.g.*, the Nasik Inscn. *Arch. Surv. W. Ind.*, IV, 108.
(4) *Junagadh Inscn. Ind. Antq.*, VII, 257.

however the culture and civilization of the conquered and easily adapted themselves to the social and religious environments in which they found themselves. They became, in other words, Hinduised. They gave up their foreign customs and habits, their foreign language and creed, and adopted Hindu customs and modes of life. Environment and policy were responsible for this transformation; but it was much promoted by the co-

The Pallava Settlement.

operation or consent of the orthodox leaders of Hindu society. For the latter were too glad to win over the new conquerors. They were, in the first place, interested in securing the support and patronage of the *de facto* rulers of the land. Secondly, they felt that good government and popular happiness were possible only if the rulers and the ruled were one in religion, in beliefs, in customs, in everything. Thus it was that they came to include these foreign conquerors into the Hindu pale and society, to dub them Kshatriyas, and to connect them with the heroes of the Mahabharata by giving a new significance to the name Pallava. And their expectations were fully realised. The Pallavas became the most Hindu of Hindus, supported the Brahmans, performed sacrifices, patronised learned men and religious leaders, and above all, introduced a new system of temple-building,—a system by the bye, which is believed by some to vindicate the truth of their foreign origin. For, Ferguson(13) points out from the nature of the Seven Pagodas which they carved, that "they seem to have settled on a spot where no temples existed before and to have set to work at once and at the same time to fashion the detached boulders they found

in the shrine into nine or ten *raths* or miniature temples."

The Pallava dynasty which thus came into existence left its undying marks in the pages of Indian History. For more than six centuries it maintained an efficient rule in the land, and throughout these six centuries, the history of South India underwent serious developments. It was a period when great social, religious and political changes took place. It was the period when Buddhism and Jainism were active in the land and contributed to the growth of civilization, and when Hinduism, thanks to the Alvars on the one hand and the Nayanars on the other, assumed the present shapes of Sri-Vaishnavism, and Saivism. It was the period again when temple worship was elaborated and when temple architecture came into existence, when the rock-cut and cave temple at first and the stone structure later on, reached perfection of construction. It was the period when the various types of Saivite creeds and cults arose, when the foundations of the devotional as well as rational schools of Hinduism in its different aspects were laid, and when an enormous quantity of secular and religious literature,

The importance of the Pallava age.

both Sanskrit and Tamil, came into existence. It was the age again when the language of the south underwent serious developments in script and in character, in form as well as vocabulary; when the *Grantha* came into existence, when Sanskrit became Tamilized and Tamil became Sanskritized, when the languages of South India assumed their present shape. It was above all the age of great social changes and reconstructions, of great social movements and transformations, of the settlement of South

Indian society on modern lines. Politically, socially, religiously and intellectually, thus, the Pallava era was epochal in South Indian history. South India, in fact, was then in the making. What were settled then exist now. It was the age when the Tamil land became the Tamil land, an age of discipline and activity, which founded the South India of the future.

It is very unfortunate that not much is known about the history of such an important dynasty. As Mr. Venkayyah(14) once said the very existence of the dynasty was a recent discovery of epigraphy(15). "The family was so entirely forgotten that it is mentioned neither in chronicles nor in traditions, while in South Indian literature, a few traces alone are to be traced. Mr. Venkayyah accounts for the Pallavas' obscurity in literature on the ground that the bulk of existing literature came into existence after their downfall. I shall

The obscurity of Pallava history.

later on point out how the view of Mr. Venkayyah in this respect is untenable, based as it is, in my opinion, on a questionable notion of the duration of the dynasty; how his conclusion

* (14) S. Ind. Assocn Pamphlet. Ind. Rev. 1907, p. 187.

(15) See Elliot's *Coins*, 39-40. The first Pallava record to be got was in 1840, near Kolair lake. In 1874 Prof. Eggeling gave an imperfect genealogical list. Burnell called it a yet nameless dynasty. Fleet's researches on the Chalukyan dynasty and Rev. Foulke's labours in Salem then resulted in the unearthing of the history of the line. For these see *Madr. Journ.* IV, XI, XIII (1844), *Ind. Antq.* Vol. III, V and IX, *Salem Manual*, pp. 1-11, and 349-65; Fleet's *Dynast. Canar. Dis.*, 14-16; S. Ind. *Palaeography* 37-40; *Madr. Manual*, 129-30; and Sewell's *Antiquities*, II, 211-12. A study of the conjectures and speculations on account of the unexplored nature of the subject at the time of their writing is naturally wearisome and confusing.

has been vitiated by the fact that he considered the dynasty to have ended in the middle of the 8th century while, as a matter of fact, it lasted right down to the beginning of the 10th; how many of the literary works he attributed to the post-Pallava, or rather "Ganga-Pallava," period as he called it, belonged in reality to the Pallava period; and how, in consequence of the fact that between the middle of the 8th century and the beginning of the 10th some of the most important and monumental works in Tamil literature were produced,—works which interest not merely the man of letters, but the politician and historian as well, inasmuch as they do contain references to the ruling dynasty.—Mr. Venkayyah's statement of a paucity of literature does not stand. Nevertheless the references are neither so numerous nor so informing as to detract very much from the great scholar's dictum as to the comparative sterility of historical material. Another cause of the Pallava obscurity is given by Mr. Vincent Smith. He thinks that the nature of the Pallava domination and rule is responsible for this. "The Pallava power," he says, "super-imposed upon the ancient territorial states, much in the same way as the Mahratta power was in later times, and presumably was confined ordinarily to the levying of tribute and blackmail. This view of the nature of the Pallava Government explains the facts that its existence was forgotten, and that tradition never assigned normal recognized limits to the Pallava dominions as it did to the Chola, Pandya and Chera." It is doubtful whether this constitutional argument can be accepted. A loose confederacy, brought together by such a frail bond as Mr. Smith imagines, can hardly have

(13) *Hist. of Ind. and East. Arch.*

lasted for a space of seven centuries and defied with success dynasties after dynasties which disputed its supremacy or attempted its extinction. Nor are there any strong reasons to believe that the Pallava control over the lands they ruled was of a meagre and superficial kind, much looser than that of the Chōlas, Pāṇḍyas, or any other dynasties in their imperialistic ages. In fact tradition assigns to the first Pallava (16) monarch the great task of consolidating the land and dividing it into 24 Kōṭṭams, each around a fort, and thus establishing a strong and settled government. The surmise of Mr. Smith, however, while not affording a full explanation of the mystery, may yet be considered to go some way to furnish it.

The history of the Pallavas may be divided into three distinct periods. The first of these, the period of the Prakrit charters, was of course the earliest and naturally the most obscure.

The second, the period of Sanskrit charters, was signalled by a fierce antagonism with the Kadambas, the Gangas and the Chalukyas for supremacy in South India. The second period ended with the thorough exhaustion of both the Chalukyas and the Pallavas and this was immediately followed by the establishment of the Rāshtrakūṭa supremacy over both. The Rāshtrakūṭa supremacy over the Chalukyas, however, was followed by a Chalukyan revival and re-establishment; but in the case of the Pallavas it ended in no revival but on the contrary in their final subjugation and expulsion, first by the Pāṇḍyan and then by

(16) *N. Arcot Manual*, p. 38. Examples of these fortifications in their ruins are at Padaved (Polur Taluk), Mahendravadi, Amburpet, etc.

the new imperial Chōla dynasty. The period between the establishment of the Rāshtrakūṭa supremacy and that of the Chōlas, a period of stone inscriptions as distinct from the charters of the previous ones, has been usually known as the Gaṅga-Pallava age. It is difficult to mark exactly the chronological division between the first two periods. (17) Supposing with Mr. Venkayyah that the dynasty obtained a firm footing at Conjeevaram at the end of the third century A.D. it is reasonable to attribute the first epoch to roughly the fourth century. It is not improbable that in this century Sanskrit was as yet only slowly making progress as a court language and the Pallava kings had therefore to issue grants in Prakrit. The second period lasted from the fifth century onward to the middle of the eighth, when the dynasty became subject to the Rāshtrakūṭas; and the third, usually styled the Gaṅga-Pallava period, lasted from about 760 to the 10th century, when the Chōla ascendancy was established. The events which took place in these epochs and which gave each of them a distinctness of its own will be described presently; but here it may be noted that each was characterised by such unity. From the political standpoint, for example, the three periods may be respectively called the period of settlement and consolidation, the period of conflict with the Kadambas, Gangas and Chalukyas of the west and the period of conflict with the Rāshtrakūṭas, Pāṇḍyas and eventually the Chōlas. From the standpoint of religion the first period may be

(17) The *Madras Manual* attributes a much earlier date. "The first direct mention of them is in the Buddhist records of Ceylon; in which it is stated that a large number of Buddhist ascetics came to Ceylon from the Pallava Kingdom in B.C. 157, to attend the inauguration of a stupa at Anoorandhapoora." (p. 129).

called the Buddhistic-Jain; the second Hindu, both S'aivite and Vaishnavite and the third chiefly Vaishnavite. Linguistically we may style the first period the Prakrit age, the second the age of the Vernacular and the third that of both Sanskrit and Vernacular. The artist again will perhaps divide them into the three eras of cave temples, rock-cut pagodas and stone structures. The literary historian, again, will call them the transitional or formative, the devotional and the philosophic periods respectively. Each period was thus characterised by a historic significance of its own, and the historian's function is to trace the developments of each of these aspects in detail and in a spirit of appreciative sympathy, and the long period of Pallava domination will then be seen to be not the least momentous and interesting in the history of South India.

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STUDIES IN DRAVIDIAN PHILOLOGY.

GLIDES.

THE sounds in speech are not pronounced singly. They link themselves very much as writing links together the letters in a word. In thus uttering one sound after another, the vocal organs have to assume in very quick succession a series of positions which are very different. Sometimes these positions may be comparatively far removed one from the other. In thus passing from one position to another, the vocal organs move with great rapidity, creating thereby a series of transition sounds. Such transition sounds, made by the vocal apparatus, are called Glides.

2. There is sure to be always a glide between any two consecutive sounds produced in different ways. They are sometimes not represented in writing, as the existence of a glide is always implied when the vocal organs pass from one position to another. More often however, these movements result in clearly audible sounds. These sounds are called Glide sounds.

3. These glide sounds belong to consonants as well as vowels. Such sounds may be more or less accentuated or prolonged. As a result there may be developed between consonants as well as between vowels, a distinct element which demands representation in writing.

4. Again in ordinary speech, the general principle is to take the shortest route between any two sounds in juxtaposition. This sometimes results in combinations which are effected without any glide at all. In Telugu we observe such an absence of glide in situations where we might expect a glide in Tamil,

For example Arati+aku—Arat-aku. In this case the glideless combination has been effected by assimilation of the first vowel to the second. Similarly Vella-ēngu—Vell-ēngu. But the combination with the glide also exists side by side.

Vella ēngu ... (1) Vell-ēngu
 (2) Vella yēngu.

5. In considering the question of glides which sometimes develop into independent sounds in the history of a language, we might distinguish three kinds:—

(i) Glides produced when beginning to speak, i.e., when the organs of speech pass from repose to activity.

(ii) Glides which occur during the utterance of words or word series, i.e., when the organs pass from one mode of activity to another.

(iii) Glides produced when pausing or ceasing to speak, i.e., when the organs pass from a state of activity to one of repose.

THE INITIAL GLIDE Y IN TAMIL.

6. There are certain words in Tamil which begin in Y. This initial Y is considered to be a glide sound in these words. As examples of such words, we might take the following:—

- (a) Yakkai ... Body.
- (b) Yāppu ... Poetry.
- (c) Yādu ... Sheep.
- (d) Yāṇḍu ... Year.
- (e) Yāmai ... Tortoise.
- (f) Yāli ... Lion.
- (g) Yāra ... River.
- (h) Yānai ... Elephant.
- (i) Yār ... Who.
- (j) Yāndai ... Owl.

Except in the case of the first two words, in all the other cases, the Y is not radical.

The root yā in Yakkai and Yāppu means to bind. Yakkai means that which is made up of (say, flesh, bone, etc., i.e., the body). Yāppu likewise means the placing together of words, etc. to form poetry. Nevertheless one might say that Yakkai which is later on used as Akkai is derived from root ā = to be or become. The prothetic Y must then have come in here by analogy with other similar forms. But Yāppu is nowhere used as Appu in this sense. It remains as Yāppu even to-day.

7. All the other words with the exception of Yāppu, appear later in another form also, viz., the form without the Y. Professor Julien Vinson takes words like Yānar (= Beauty, fresh income) in this list of words occurring with an initial Y. This word seems to be connected with the word Yāli—(=Lute). In Sandhi, Yāli + nar = Yānar. There is ample evidence to show that just as in ancient times the troubadours and the troubadours went about the continent of Europe singing songs to the accompaniment of the lute or the lyre, so also in the Tamil country there were itinerant bards who earned their livelihood by singing songs on occasions before kings and other patrons of learning. These songs were generally sung to the accompaniment of instrumental music, the indigenous Yāli.

8. Those who used the Yāli were called Yālnar. And since their advent into a place was looked upon as a delightful event in that locality, and as they were generally treated with very great hospitality wherever they went, the word Yālnar may have come to signify "fresh arrivals," "fresh income," "beauty." We must leave out of account such words where the Y is part of the word

and has not dropped out as in the case of other words beginning in Y. For we still say Yālpānam (Tamil word for Jaffna in Ceylon said to have been given away as a gift to bards who sang to the accompaniment of the Yāli.)

9. Again a few Sanskrit words like Yugam, Yūpam, Yōgam, Yōjanam, Yāyanam, etc., are also used in Tamil. But these words are not found in the older Tamil classics. And even when they are used in later classics, they do not retain the Y in Tamil, as by the law of Initial Sounds in Tamil, Y could not begin words in Tamil in combination with the vowels u, ū, ō, etc. Hence the Y drops out in Tamil in these cases.

(e.g.) Skr. Yugam.....Tam Ukam (Tēvāram-I-Tirukālamalam—Verse 8)

Skr. Yōjanam.....Tam. Ōjanai (Cintāmaṇi—Verse 1901).

As these are Sanskrit words they should also be left out of consideration.

10. Eliminating such words as have been enumerated in paragraphs 7, 8, 9, we have the following pairs of words fairly common in Tamil:—

Yakkai	...	Akkai	..	Body
Yāli	...	Āli	...	Lion.
Yār	...	Ar	...	Who.
Yānai	...	Anai	...	Elephant.

These words are variously used in common speech now; people pronounce them with Y or without Y, but mostly without.

11. But in the case of the following words, the Y is completely lost to-day and we find in ordinary speech the words used always without the Y.

(Y) Āḍu	...	Sheep.
(Y) Āmai	...	Tortoise.

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(Y) Āru	...	River.
(Y) Āṇḍu	...	Year.
(Y) Āndai	...	Owl.
(Y) Āy	...	Mother.

In the ancient Tamil classics we invariably find only the forms with Y which go to show that they were then pronounced as such. And Tamil grammar studied historically is helpful in showing that the original form of these words commenced with a Y.

12. In a classical poem known as Porunar āruppāḍai, we find the form āli used.

“ஆளி நன்மான் அணங்குடைக்குருகை” (line 139). The commentator Nacinkiniyar who lived sometime in the twelfth century, in commenting upon this passage, states that the form Yāli is the older form and that it has been here used as Āli. His remarks in this connection are very interesting. He explains the use of the form Āli for Yāli in the line, as being due to the disappearance of the form with Y even in the days when the poem was written and declares that in his (i.e. Nacinkiniyar's) time the form Yāli has disappeared in ordinary speech. He quotes a rule of grammar from the Tolkāppiam, the ancient Tamil grammar, which throws a flood of light on the antiquity of the initial Y.

13. Rule 452 of S'olīadikāram of the Tolkāppiam “கடிசொல்லில் தாலத்துப்படுகே” refers to borrowings in general which affect initial sounds in Tamil. The meaning of this rule is, “If the enlightened public used a particular word-form, which has not been in use previously, the new word-forms would be freely used in literature as well and accepted as correct.” This rule has special reference to the use of words which begin in sounds which were not initial in the language pre-

vously. For example in rule 65 of Eṭṭṭadi-kāram, the grammarian says that Y is not initial except in combination with long A ("ஆகாடல்வது யகரத்தலாது"). This was so in the time of Tolkappiar. Since then words like Yagam, Yōgam, etc. have been freely used in speech. Hence we find the rule in the Nannal of a later date ("அ ஆ உ ஓ ஒ ஐ யம்முதல்") that Y is initial in combination with the vowels a, ā, u, ū, ō, au (e.g.) Yavanar, Ygnai, Yugam, Yūpam, Yōgam, Yauvanam, etc.

This brief survey of historical grammar shows that Y was originally initial only with A.

14. Hence it is that Nacinārkiṇiyar points out in his commentary referred to in paragraph 12 that the old form Yāli has fallen out of use and that the form Āli is the form in use in his days and that this must have been so even in the days when the poem he commented upon was written.

15. Another important source of information about the word-forms used in later times is the Tēvāram, a collection of hymns in praise of God sung by Saivaite Saints. These Saints travelled throughout the Tamil country and preached the true religion as opposed to the heretic faith of Buddhism and Jainism. The religious conflict in those times was the immediate cause why such hymns were sung by the Saivaite Saints to draw people away from heeding to the preachings of the Jains. They therefore spoke to the people in these hymns and the Tamil language as it was spoken by the people in those days is faithfully mirrored in the word-forms found in such hymns.

16. Thus the commentaries on ancient works and the Tēvāram form valuable

sources of information about the actual word-forms then in use. In all the ancient classics we find mostly the forms with the initial Y. But in the Tēvāram of Saṁbandar which was sung at a much later date, we find both the forms used, the form with the Y and the form without the Y.

17. The following examples from the more ancient classics and the Tēvāram go to show that the older form was the form with Y.

Yakkai:—Yakkaiyai yapputaittāp pēṇavar (Nāl—v.28), piṇi Kolakkai..... (Tēv—I. page 30) akkai ullurai āvi Ketuttavan (Cin—V. 197).

Yāṇḍu:—Mannuyir āliya yāṇḍu pala tolakki; yāṇḍu niraintekiyapin; pannirāṇḍu (cin—V. 1794); pallāṇḍu pallāṇḍu (Tiruvaimoli).

Yāmai:—Paḍai miliradittā Yāmai (Pur—42) māṇi yāmai ilam pārpu; (Cin—V. 177) ampaṇattanna yāmai (ing—v.43) akkinodāmai (Tēv—I page 55). Paḍavarav amai (Tēv—I, page 106).

Yāru:—Aṇi māṇal per yāru (Cin—v. 106); Yāru s'er s'atai yannalē (Tēv—I. page 178); ārum or s'ataimēl aṇinta (Tēv—I. page 104); Kān yāru (Pattu—Malai—I. 214).

Yāy:—Munril pokā mntirvipal yāyūm (Pur—V. 159); enru yāy molinta māṇṇam (Old Tir—Ch. 9 V. 4). Ankan ulaimai āy aṇiyamai. (log.—)

Yāli:—Mālvārai yāli (Purap—Ch. 10 V. 6); yāli nirulampume (Cin—V. 1900); nārittal āli yānai (Cin—V. 2554).

Yānai:—Yānai veṇ mēṇappulakkai (Cin—V. 1562); mūrittalāli yānai (Cin—V. 2554); ānaiyin urivai pōṭa vem māṭikal (Tēv—I.104).

Yāḍu:—Yāḍu parantanna mā (Paḍir—v.78) āḍu as in Vellāḍu.

Yāndai:—Kompura killai ālaku sol āndai Yāndai vili ciru pūtattar (Tēv—I. 60); pottilatturaiyum āndai (Cin—V.1395).

The loss of the Y of the classical forms in later literature clearly indicates the use of the Y as a sort of glide in the words considered.

18. Taking the case of Telugu we find that there are no pure Telugu words beginning in Yā. The words usually met with in writings with the initial Yā are all borrowed from Sanskrit into Telugu. In Malayālam the words beginning in Yā correspond to the forms in old Tamil.

Malayālam	Yā tu	Tamil	யாது	Which
"	Yā van	"	யாவன்	Who.
"	Yā li	"	யாலி	Lion.

There is no form as Āli in Malayalam corresponding to the present day Tamil form Āli. This form Āli in Malayalam preserves the oldest form with the prothetic Y.

In Canarese, we have forms used with the initial Y in the word Yar (Old kanār) and without the Y in other cases like Āme, Āḍu, Āne, Ādega, and Āy.

19. Such a comparative study of forms beginning in Yā in other languages than Tamil shows that there are a number of such words quite characteristic of Tamil. And as the Y is lost in later times, the fact is clear that it is a glide sound produced when the Tamilian had to pronounce a back-vowel like Ā initially. The difficulty is got over when the words occur in the middle of sentences, as we sometimes find in the Tēvāram.

20. As an initial or on-glide Y is only preceded by silence. This was probably very audible in ancient times. Hence Tolkappiar writes *யெய்யா* where we would now write

யெய்யா as we pronounce it now. The greater audibility of the glide sound is responsible for such clear representation of Y in all old forms; and the gradual loss of Y is due to its not being so clearly heard now in actual speech.

21. *Vowel introduced with glides.* Before the back-vowel Ā, the Y glide comes in quite naturally. For, in the production of the vowel sound, the glottis is gradually narrowed, passing through the various positions from breath to whisper, until the vocal chords are able to produce a voice. Just then the breath is kept back and the glottis is closed for voice. The voice now begins immediately without any introductory breath and results in an audible vowel sound (here Ā).

Thus the stress is here really upon the vowel. Such a stress is hard at the commencement. And as only silence precedes the voice, the stress is easily thrown on to the preceding glide, which in this case becomes a clearly enunciated Y. As it is audibly heard, it is recognised as a separate element and so represented in ancient writing (e.g.) Yāmai, Yāli, etc.

As Professor Julien Vipson remarks, "the palatal semi-vowel is never initial in Tamil and primitive Dravidian." Hence it is that Indian grammarians who wished to account for its existence initially in words like Yāru, stated that Y is initial only in combination with Ā (Para 13.)

22. *Example of the Pālis.* Such a tendency to introduce vowels with initial glide, seems to be quite common. Mr. G. H. Damant writing on the language of the Pālis of Dinajpur, India, observes that they seem quite unable to pronounce initial R and sometimes initial Ā; and that therefore they

pronounce 'Āmi' (1) as bāmi with a strong accent on the first syllable (Indian Antiquary, 1872). It will be observed that in this case, the sound hā and not ā is heard because the stress of the breath is changed from the vowel itself to this introductory sound.

23. The primitive form of Ā in Tamil which appears as Yā with a prothetic Y in the words herein considered, now remains to be decided. Professor Julia Vinson says, "One might suppose that Ē was primitive, that it changed into Yā, then into Ā." And he adds, "an Ā could never have been preceded by Ē and perhaps the collection of the Dravidian forms points to one conclusion that the long Ā is primitive."

24. The question as to which is primitive, Ā or Ē, has been a debated point. In the Indo-Germanic vowel system, primitive Indo-Germanic Ē has changed into Ā in Sanskrit and Avestan (Brugmann, Vol. I.—i. page 93)

(e. g.) Lat. Ēdimus

Goth. Ētem

O. S. Atum

Skr. Ādmā (Wright's Gothic grammar, page 19).

Whether or not primitive Dravidian Ē first changed into Yā and then into Ā could be judged only by a careful comparison of the word-forms in all the Dravidian languages.

25. A comparison of parallel words in the Dravidian languages, shows that in the case of the word for the goat, the Brahui, Kurukhi, Tulu and Telugu languages follow Skr. Ēḍah or Ēḍakah, and have words beginning in Ē. But Tamil, Malayalam and Canarese forms begin in Yā.

Again the word-forms in the dialects also indicate that in many cases the Ā is the primitive form. And whereas Telugu has Ē in very few cases, the Chentsoo dialect of

Telugu has only Ā in those cases. All other dialects have mostly forms in Ā. These facts go to show that Ā is primitive.

It is noteworthy that in the case of such an important word as the noun of relationship Mother (Yāy) all the languages have the form with long Ā; and in the case of the domestic animal 'Sheep' (Yādu) most of the languages have words beginning in Ā.

(i) Mother:—Tam. Yāy, āy; Kurumba āvve; Irula āvve; Yerk Tāyi; Tel. amma; Yēnandy Amma; Chentsoo Mā; Can. Tāyi; Badagah Tāi; Kui. Āya; Gondi Yā.

(ii) Goat:—Tam. Yādu, ādu; Kurumba ādu; Irula ādu; Yerk ādu; Tel. Ēḍa; Mal. ādu; Can. ādu; Badagah ādu; Kota ādu; Toda ādu; Coorg ādu; Tul. Ēḍ; Kur. Ēḍā; Brahui Hēḥ; Gondi Ēḍi; Kui Ōḍa; Skr. Ēḍakah.

(iii) River:—Tam. Yāru, āru; Yerkula āru; Tel. Ēru; Mal. āru; Tul. Ēr; Kurukhi Khār.

(iv) Elephant:—Tam. Yānai, ānai; Kurumba āne; Irula āne; Yerkula āna; Tel. Ēnuga; Yēnandy Ēnige; Chentsoo Hāte; Can. āne; Badagah āne; Todah ān; Coorg āne; Gondi Yāni; Mal. āua.

(v) I:—Tam. Yān; Kurumba Nā; Irula Nānu; Yerkula Nānu; Tel. Nēnu; Chentsoo Hāmi; Mal. Nān; Can. Yānu, ān; Badagah Nā; Kotah āne; Todah ānu; Coorg Nānu; Khond ānu; Tulu Yan; Kui ānu.

(vi) Who:—Tam. Yār, ār; Kurumba yāru; Irula āru; Mal. ār; Can. Yar, ār (old form); Badagah Yāru; Kotah āre; Todah ār; Coorg Daru; Yēnandy; Dāra; Tulu Ēr.

26. The question may also be approached from the point of view of the words used for the indefinite interrogative pronoun in Tamil. Both Ē and Yā are used initially as interrogatives in Tamil

(e. g.) Ēdu, Yādu.

Ēvan, Yāvan.

Ēvar, Yāvar.

But the forms Ēvan and Ēvar, are not used in ordinary speech. They are sometimes used in poetry where the exigencies of metre require them.

"Inta vūpavat ēvan iccēṭuvai vaṭṭu Kāṇinum" (S'etu-S'etu—V. 14).

"Punkavar ēvarum s'erinteitinar" (Kanda-Pāyira—V. 7)

"ēvarkaḥ kamam kāṇṇi" (Kānda-mēru—V. 75).

27. As regards interrogatives in Tamil Tolkāppiar, the ancient grammarian says (Tol-Ēḷu—Rule 32) that Ā, Ē, Ō form interrogatives. Here the commentator takes the examples

(i). Unkā (உன்கா)

(ii). Unke (உன்கே)

(iii). Unkō (உன்கோ).

and remarks that the form with final Ā was rarely used in his time and that Ē and Ō were mostly used as in

(i) Nīye? (நீயே)

(ii) Nīyō? (நீயோ)

But in the Nannūl we find it stated that final Ā and final Ō form interrogatives along with the final Ē. (Rule 67). Again the use of the form Ēvan which later on becomes Ēnai and Ēn) for the form Yādu (=which) seems to be fairly common. We have several examples in the Kur.

"ākkam evanō uyirkku." (Kur.—V. 31).

"kāppu evan s'eyyum." (Kur.—V. 57).

The form Evan in examples like "கோடு ஏவன்" has however fallen out of use in the days of Nacinārkinīyar, the commentator on the Tolkāppiam.

These facts clearly indicate that initial Ā in Yādu, Yāvan, and Yāvar was for sometime

not used, and that the forms Ēdu, Ēvan, and Ēvar which came in their places did not however remain fixed in the language. They were used only in poetry and but rarely. The form in long ā again asserted itself. In the few cases where Ē came in, the enfeeblement of Ā into Ē became but an initial softening, which, however, nōḥ beidḡ organio, did not persist in the popular language.

28. Such a tendency of Ā becoming Ē is seen in some of the North Indian vernaculars also.

Skr. Kapātaḥ > E. H. Kēvar.

Skr. Māhila > E. H. Mēhar.

And of the Dravidian languages and dialects most of them have the Ā form uniformly in several cases. (Para 25). Telugu alone has Ēḍa, Ēra where Tamil has ādu, āru. But the fact however remains that in most cases, Telugu changes Ā into Ē. For example

Skr. Rātri > Tel. Rēṣi.

Skr. Yyāghra > Tel. Vegi.

From the foregoing facts the conclusion is irresistible that in the words with a prothetic Y considered in para 6, the primitive forms Ā and not Ē.

Dr. L. D. Barnett, British Museum, London, writes:—"In general I agree with your conclusion as to the initial ā being proto-Dravidian. The evidence suggests that the primitive Dravidians had no initial Y and that it sporadically developed later after the various languages had branched off."

ABBREVIATIONS.

Tam.	... Tamil.
Tel.	... Telugu.
Mal.	... Malayalam.
Can.	... Canarese.

Skr. ... Sanskrit.
E. H. ... Eastern Hindi.

Books.

Nāl. ... Nālaḥyār.
Tev. Sam. ... Tevāram of Sambandar.
Cin. ... Cintāmaṇi.
Par. ... Purāṇāṇṇu.
Pattu. ... Pattappattu.
Malai. ... Malaipaḍukaḍām.
Parap. ... Parapporul Venbā malai.
Paḍiṇ. ... Paḍirrupattu.
Kanda. ... Kandapurāṇam.
S'etu. ... S'etupurāṇam.
Kur. ... Kuṭal.

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DR. ARNOLD OF RUGBY.

INTRODUCTION.

AMONG the illustrious great men who, at different epochs, ancient or modern, have left an undying impress on the educational history of the world by shaping the course of, nay almost revolutionising, the systems of education current in their day, the name of Dr. Arnold of Rugby occupies a highly-honoured place. In many respects he invites comparison with the great educational reformers of the 18th and 19th centuries who successfully attempted to base the education of the young on sound principles of the new science of psychology. Dr. Arnold was a born educator of the young. Unlike others, he was not merely an educationist; but his capacities and activities found vent in many other channels. He was a profound classical scholar, an eminent historian, a great theologian and an impressive preacher. Not only did he materially influence his surroundings, but he was himself deeply affected by the forces at work in his environment. The spirit of fermentation that deeply agitated every phase of the national life in the first quarter of the 19th century was not without its tangible effect in the field of education. The soundness and utility of the different grades of educational institutions, though having the sanction of long usage and established authority, came in for vigorous criticism at the hands of thoughtful members of society. The public schools, rather unique and peculiar in many respects to England, had their full share of praise and blame. The study of the classical languages usurped too great a share of the school work. The effect of this disproportionate range assigned to classical learning was generally felt to be both narrow and practically useless. A more

universal complaint, one that created great discontent in the minds of thinkers, was that the young men who were educated in the public schools were devoid of religious faith and the spirit of reverence for things holy. This "godless education," not dissimilar to the present state of English education in India, this absence of systematic attempts to give a decidedly Christian character to education, was condemned as a narrowing and pernicious blot in the bringing up of the youth of the nation. A complete reformation, at least a decided improvement, was felt to be inevitable. Of course, any radical change was sure to be stubbornly resisted by the naturally conservative section of the society and by those whose vested interests were likely to be endangered thereby. The times and circumstances sorely needed a man with a will, with a grasp of the problem, and with a firmness of purpose to carry out his plans in the face of all opposition until success crowned his efforts. Such a man was found in the person of Dr. Arnold.

HIS LIFE.

The life of a schoolmaster is neither very adventurous nor brimful of stirring incidents, but runs its even course of quiet usefulness and simple activity; and Arnold's life is no exception. But his whole life was unselfishly dedicated to a noble and unostentatious work. Dr. Arnold was born on 13th June 1795 at West Cowes in the Isle of Wight and had the early misfortune of losing his father in his sixth year. He was educated at Warminster and later at Winchester. As a boy he was very shy and of a retiring disposition and possessed stiff and formal manners; and unlike other boys of his age he had peculiar pursuits and tastes. The seeds of future

greatness were evident even in the precocious literary productions of his boyhood, he having written a small tragedy before his seventh year. And during his school life he not only distinguished himself by winning prizes for his Latin and English poems but showed a special predilection for history and geography. Among his boyish sports and amusements are mentioned his keen interest in sailing rival fleets in his father's garden along with some friends or "acting the battles of Homeric heroes with whatever implements he could use of spear and shield, and reciting their several speeches from Pope's Translation of the Iliad." In 1811 he entered Corpus Christi College, Oxford, and after taking his degree was elected Fellow of Oriel College where he was profoundly influenced by the society of such promising young men as Dr. Whatley, Dr. Hawkins, Keble, etc. He left Oxford having been ordained Deacon in 1818. In 1819 he settled at Laleham, having married Mary Penrose, the bosom companion and helpmeet of his arduous life; and the next nine years of his life were spent there. Many persons may be surprised to know that Arnold was engaged as a private tutor preparing young men for the Universities—a work that might be deemed an unalloyed drudgery by all teachers. Arnold's idea of this work is indicated in one of his letters to a teacher where he says: "Do not take your work as a dose, and I do not think you will find it nauseous." This decade of comparative quiet implanted in him a genuine liking for the vocation of a teacher of the young and produced a remarkable growth in his character and marked the transition from "the high spirit and warm feelings

of his youth to the fixed earnestness and devotion which took possession of his whole heart and will." Young Arnold was not without his high ambition in life; he says: "I believe that, naturally, I am one of the most ambitious men alive; the three great objects of human ambition are to be the prime minister of a great kingdom, the governor of a great empire, or the writer of works which should live in every age and in every country."

Yet the distinguished capacity and talents, that would have creditably administered a kingdom, were devoted to the governing of immature boys in the school world. For in the year 1828 he was elected as the Headmaster of Rugby; and he gladly accepted, and endeavoured to justify, the trust and confidence reposed in him by the school authorities. During the fourteen years that he occupied the place, what vast improvements he effected in the school by the introduction of certain new and untried principles in the conduct of the school so as to raise Rugby to a rank second to none among the public schools of England are matters of History. The school had no separate existence from him; his life was rather merged in it. Such a whole-hearted devotion, nay, rather sacrifice, to the welfare of the school, was not to last long. In 1841, in recognition of his greatness as a historian, he was appointed as Regius Professor of History at Oxford. On the 12th June 1842 he had to answer the "call, unforeseen, sudden," owing to sudden heart-failure after an attack lasting for nearly three hours to the universal sorrow of all who had known or even heard of him. How deeply the loss, felt by many as a personal irreparable loss, was mourned will be evident from the many eloquent letters of tribute received from the different quarters of the English-speaking

world. "As a testimony of gratitude to his services in the cause of education," a monument was erected to his memory in the school chapel from a public subscription raised from all classes of people in the country. But a more enduring monument will always be the memory of the pure and saintly soul deeply cherished by all who came in contact with him, and the example of a spirit of whole-hearted and disinterested service in the cause of education he has bequeathed to be imitated and followed by posterity.

HIS PERSONALITY.

The secret of the influence of Dr. Arnold over the young, as well as the old, was, in no small measure, due to his majestic and inspiring personality. His very presence was calculated to command respect, reverence and awe no less than inspire love and devotion. The handsome, radiant and serene face, the deep and penetrating yet kind and sympathetic eyes, the calm and seriously-moulded lips, the broad and intelligent forehead, the affable and courteous manners, the gentle and genial temper, a form born to rule and to command, —all these tended not only to inspire love and reverence but to generate in the minds of the young a tendency to hero-worship in its purest and noblest form. When this external magnetic charm was inseparably combined with a moral excellence and intellectual pre-eminence, who could resist the potent sway of this mighty soul? Was he not to the young ardent minds, glowing with enthusiasm, keenly sensitive to the slightest touches of the heroic in man, and eagerly searching for the light, the *beau ideal* of all the manly and elevating virtues they had dreamed of or pictured to themselves in their reflective moments, a righteous man every moment of whose life was a dedication to the uplifting of the character of the young, and a warm friend who was ever solicitous of their good and

welfare? Those who had the privilege of coming into close contact with him could never forget the deep and lasting moral impression he left on their minds; even to those who only saw or knew him at a distance he was a fountain of all that is admirable and lovable in human nature.

HIS CHARACTER.

The secret of the success that attended a life so simple and yet so many-sided in its activities, is largely attributable to the moral force and goodness of his character. Nature lavishly endowed him with intellectual and moral qualities of a high order, which he endeavoured sedulously to cultivate throughout his short but strenuous life. From the first he was resolved to dedicate his talents for his own good and for the good of his struggling brethren. The breadth and comprehensiveness of his character embraced many noble and stirring virtues. His outlook upon life was as cheerful as it was serious. The natural sanguineness of his character combined with his "buoyant cheerfulness" made an optimist of him, who would never despair in spite of frequent failures, and whose faith in the progress of humanity never wavered in spite of many chilling proofs to the contrary. United to an indomitable will, his courage of conviction was so deep-seated that, once he felt the necessity and usefulness of certain principles, he was sure to carry them into effect not only in his own life but in his dealings with others. It was this unconquerable will-power that made him an object of fear and dread to the intractable young boys at Rugby. The spirit of resistance and opposition melted away before him. This success in the achievement of his objects would have

been impossible unless these mental qualities were happily mingled with great moral virtues. Even his opponents or those who disagreed with him never questioned for a moment the sincerity and purity of his motives or intentions. His uprightness and transparent honesty were always above suspicion. He was a believer, and he exemplified it in his own noble life, in the union of intellectual and moral excellence. His life was a persistent upward striving after moral goodness and beauty. Another inseparable element of his character was his deeply religious nature. With him religion was not belief in certain doctrines or dogmas to be accepted or rejected, nor a separate business to be transacted in a convenient hour. The sense of religion was ingrained in his very nature. Every fibre of his being was through and through penetrated by this religious consciousness. There was no work, however commonplace or trifling, but he did in the spirit of a sacred duty. Narrowness and bigotry had no room in his mental world. Many of the traits mentioned above would be considered imperfect unless they contributed to the formation of culture, which was the ideal of his life. He never considered education to have fulfilled its highest function unless the unfoldment and development of mental qualities bore their richest fruit in the fostering of culture. The success that crowned him in his highest efforts to attain "a clear-purposed goal" and the respected place he came to occupy in the public life of England never made him lose sight of that rare virtue, *viz.*, humility, as one of the humblest workers in the hands of his Lord and Master. In fine, he was one of the noblest specimens of a Christian gentleman, ever

"Cheerful, and helpful and firm"!

HIS EDUCATIONAL IDEAL.

Dr. Arnold was an idealist in education. He was never satisfied with temporary make-shifts and half-measures. He was always aiming at perfection—as high as it was attainable. Education, that merely enables a man to earn his bread, or puts a thin veneer of polished delicacy over the uncultivated mind, he regarded as fruitless. Mere book-learning he counted as trifling. The Government of India in its Resolution on Education issued early in 1913, definitely laid it down that “the formation of character should be the main objective” of the system of education in this country. Dr. Arnold enunciated the same principle three quarters of a century ago in very emphatic terms. Long before he became the Headmaster of Rugby he was convinced that the secular character of the then education which turned out young men rather irreligious, or at least quite indifferent towards religion, was its greatest drawback. Therefore he declared his ideal to be “to make the school a place of really Christian Education.” Formation of character on sound lines was the predominant object with him. His triumph in attaining this difficult object is universally acknowledged. He made use of every suitable means, every golden opportunity, in shaping their minds in the actively impressionable period of youth. He treated boys not only as school boys but as boys “who must grow up into Christian men who would try to apply Christian principles in their daily lives.” His education was not based on religion but it was itself religious. Thus he would often talk to them and awaken in them a consciousness of the duties and responsibilities that would devolve on them in life. He was never tired of impressing

on them the seriousness of life, that “it was no fool’s or sluggard’s paradise but a battlefield ordained from of old” in which success or failure depended upon the conscientious discharge of one’s duties. The characteristic stamp of the Rugby life he always strove to impress on the youthful minds was “moral thoughtfulness.” How far he succeeded in his attempt is testified to by Dr. Moberly, Headmaster of Winchester, who, referring to the character of those students studying at Oxford but educated at Rugby under Arnold says: “his pupils were thoughtful, many-minded, conscious of duty and obligation, when they first came to College; and we cordially acknowledged the immense improvement in their characters in respect of morality and personal piety, and looked on Dr. Arnold as exercising an influence for good, which had been absolutely unknown to our public schools.”

AS A HEADMASTER.

The elevation of Arnold from the position of a mere private tutor to be the head of a large public school like Rugby was a worthy recognition of his sterling merits. But it entailed heavy responsibilities of which he was fully conscious. He hailed the appointment chiefly owing to the opportunities it presented of putting into practice many of the favourite principles and theories he had conceived in his mind as a tutor, about the conditions necessary for a sound and healthy system of public instruction. Of course, he was not unconscious of the frequent collisions and violent opposition arising from narrowness, ignorance or prejudice, he would have to face from different quarters. But as a man of principles never deviating from the path of truth and justice,

as one always acting from a strong sense of duty, and as one “immovable as a rock when once he had made up his mind,” he surmounted all obstacles and gradually turned in his favour even the popular prejudice that existed against him for some years. Teachers have to learn many a lesson from the life of Dr. Arnold. He always fought to make the working of the school completely independent, not allowing any interference in the internal administration of the school from the management; he expected from the Board of Managers not only passive interest but active support and personal friendliness, which they willingly and readily gave him. Whenever any collision arose between him and the trustees upon some vital principle he felt that “resistance was a duty,” and was prepared to resign his place rather than permit undue or unnecessary interference. How many Headmasters would run such a risk for the welfare of the school! Half the success he achieved was due to the trust he reposed in his Assistant-masters and the confidence he inspired in them to co-operate with him willingly and heartily in the work of the school. He never acted without consulting them in important matters of school discipline. All important matters concerning the school were freely discussed at the monthly meetings of the school council. What an object lesson for Headmasters and Assistants to learn! But he insisted, and that justly, that the business of the school should occupy their “main and undivided interest.” There was free intercourse and friendly communion between him and his Assistants. In his dealings with the students, the same spirit of friendliness and sympathy was always predominant. His influence over his pupils is universally acknowledged. In their eyes he

was an embodiment of all manly virtues, an object worthy of imitation, one who not only preached noble ideals of life and conduct but lived them every day of his life. “He treated the boys as gentlemen and reasonable beings, making them respect themselves by the respect he showed them.” As the successful conduct of the school was impossible without intelligent co-operation especially of the elderly boys, he regarded them as “fellow-workers,” and appealed and trusted to their common sense, in devising rules and measures to attain the goal. The method, by which a mischievous, thoughtless, headlong and rash rebel like Tom Brown was transformed into a serious, obedient and God-fearing co-worker with Arnold, is a glowing testimony to the soundness and fruitfulness of the method advocated and followed by Dr. Arnold in his management of the boys. “The whole atmosphere of the school was penetrated by his spirit; its peculiarities and excellences were derived from him.” During his regime as the headmaster the school rose into popularity as it had never won before; it rose in numbers beyond his eager expectations; his principles of education had been vindicated; and even those men who, owing to their ignorant prejudices and conservative instincts, had derided him before, now rallied round in his favour and thanked him as a benefactor and friend of the country.

AS A DISCIPLINARIAN.

It was as a disciplinarian that Arnold and his principles came in for unbounded praise and blame from his contemporaries; but before he was taken away from his earthly field of labours he had conquered the prejudices of his critics. Nothing succeeds like success; and looking at his work from this distance of

three quarters of a century, his principles and methods of discipline stand fully vindicated in the light and experience of later generations. Whether his principles are of universal application at all times and in the hands of all teachers it is very difficult to answer. But it is certain that it was the man behind the method that chiefly ensured success. By the boys of different ages and temperaments, Dr. Arnold was regarded with varied feelings, he was feared, respected, loved and revered. Especially by the older boys, with whom he came in daily and intimate contact, he was loved as a hero and worshipped as a saviour. His ideal was to make the rules of discipline a potent instrument in the building-up of the character of the students. The keynote of his whole principle was "the union of firmness with tenderness." He always maintained and preserved unimpaired

"That strength,

Zealous, beneficent and firm!"

He was uncompromisingly stern and severe when he had to deal with moral evils in the young men; but generally he was all gentleness, sympathy and love. He always advocated and permitted a large amount of freedom to the boys. "If I am to be here as a gaoler, I will resign my office at once," he said on one occasion when he was deeply pained by the sight of serious misbehaviour around him. He was a stern enemy to vice of all kinds; and flogging was resorted to for moral offences like lying, drinking, etc. But he tried as far as possible to take a lenient view of such cases; once he was convinced that a grown-up boy was exercising an unhealthy moral influence over others he mercilessly removed him from the school not simply as a punishment but to protect other boys from moral contamination.

About this principle of discipline, he wrote to a friend: "Lenity is seldom to be repented of; and besides, if you should find that it has been ill-bestowed, you can have recourse to expulsion after all. But it is clearly right to try your chance of making an impression; and if you can make any at all it is at once your justification and encouragement to proceed." He had an almost superhuman insight into the character of boyhood; his Assistants were struck with the vividness, accuracy and the truth of his delineation of the individual character of the boys. The turning point in the character of Tom Brown is furnished by the keen insight of Arnold in providing him with an object to care for and love in the person of young Arthur. People trusted to his opinion of boys as to divinations. He always detected and fostered the germs of coming good in young boys. With perfect confidence in the words of the boys he often used to say: "If you say so, that is quite enough; of course I believe your word." The natural result of this bold stroke of trust was that boys felt it a shame and disgrace to tell Arnold a lie. The trust that he placed in their honour as gentlemen, was never betrayed. It is inevitable that boys trained under such influences should cultivate true manliness, a sense of duty, a love of honour, a love of truth growing along with a love of goodness and what he above all longed for, "moral thoughtfulness."

The magnitude of the disciplinary work done by Arnold should be gauged by what he achieved at Rugby in his day. The school was in a state of "monstrous license;" discipline was something unknown; bullying and teasing of smaller boys largely prevailed; drinking, lying and other vices had a luxuri-

ant growth; and a moral or religious turn of mind was conspicuous by its absence. To the man who succeeded in eradicating all or most of them completely or to a large extent, —as Arnold did,—all honour and glory! The two instruments that he made use of in effecting his purpose were the systems of employing præpostors and the custom of "fagging." Arnold did not invent them; but seeing the good in them, he enlarged their scope and perfected them as no one had attempted before. By præpostors we mean the thirty boys of the Sixth Form "who having risen to the highest form in the school, will probably be at once the oldest and the strongest, and the cleverest; and if the school be well ordered, the most respectable in application and general character." Those senior boys were invested with certain powers of chastisement, and they were authorised to look after certain duties connected with the school, for the proper conduct of which they were held responsible. These "fellow-workers" as he called them formed an efficient engine of discipline, and a means of creating a respect for moral and intellectual excellence, and diffusing his own influence in the school. They were imbued with the highest principles and motives and made to feel that they too had a moral responsibility and a deep interest in the welfare of the school. The training such boys received in turn made them good and brave men and worthy citizens of a free country. Again, fagging was "the power given by the supreme authorities of the school to the Sixth Form, to be exercised by them over the lower boys, for the sake of securing a regular government amongst the boys themselves, and avoiding the evils of anarchy, in other words, the lawless tyranny of physical strength." Believing as he did in

the value and practical usefulness of "fagging," he exerted his utmost in weeding out the corrupt outgrowths that encrusted it and minimised its efficacy.

Having invested so much responsibility and authority in the boys of the Sixth, he expected them to be paragons of virtue and good conduct. Such was his faith and hope in them that he said: "When I have confidence in the Sixth, there is no post in England that I would exchange for this; but if they do not support me, I must go." Any laxity in their moral behaviour, or weakness or misconduct in them deeply pained him and shook his hopes. This natural trust created in them self-respect and respect for others, manly aspirations and a desire to be of some service to their fellow-men. To us in India these two institutions of the public schools in England sound as something strange, unworkable and even futile; but we have to remember that we do not live in a free country, and the atmosphere of freedom is quite essential to make these congenial to our soil.

• AS A TEACHER.

It is no doubt true that Dr. Arnold distinguished himself by his success as a headmaster and as a disciplinarian; but his qualities as a teacher should not be overlooked as they furnish many a valuable lesson to the ordinary run of teachers. His actual work in the class-room should not be eclipsed by other activities of a more general character. He warmly advocated a wider and more liberal curriculum of studies than conventionally existed in the public schools of his day for raising the general standard of knowledge imbibed by the young men. With all its humanizing influences, he felt that the narrow classical teaching prevalent at Rugby,

was inadequate to develop the complex human mind. Hence he signalised his regime at Rugby by the introduction of Modern History, Modern Languages and Mathematics as subjects into the work of the school in spite of some initial opposition. The function of the school, according to him, was not to furnish the boys with knowledge but rather to create in them a thirst for learning; for he often used to say: "You have come here not to read, but to learn how to read." As a teacher he aimed not only at raising the collective intelligence and industry of the whole class but also at awakening the intellect of every individual boy. His own arduous life, dedicated to learning, stimulated a spirit of industry in the boys.

He encouraged the industrious to greater exertions, stimulated the intellect to higher fields of work, even the dull and the plodding never lacked his timely kind word; but wilful negligence he never tolerated. To many it may be surprising to hear that "he gave very little formal instruction or information, except as a kind of reward for an answer;" his explanations were as short as possible, enough to dispose of the difficulty. He merely made the students study and think for themselves. His general method was to teach by questioning; the questions were such as to call attention to the real point of every subject. Especially in the older boys, he encouraged the cultivation of the habit of collecting facts, understanding the principles on which they were based, and expressing them with ease and facility. As a man of culture he advised the boys to form independent judgments and opinions of their own after mature thought. Whenever an ignominious went wrong, he set him right, not by correcting him at once, but by gradually

helping or leading him until he arrived at the true answer, and also by "making the answers of the more advanced part of the form serve as a medium, through which his instructions might be communicated to the less advanced." The interest and attention evinced by his boys in his teaching never lagged, especially because "they were conscious of the absence of display, which made it clear that what he said was to instruct them, not to exhibit his own powers." Young and enthusiastic teachers, fresh from the College or University, may well lay this lesson to heart! Arnold always emphasised that if a teacher desired to command the respect and obedience of his students, "he himself ought to be perpetually learning; and that, intellectually as well as morally, he ought to be constantly above the level of his own scholars." He revered learning; and he encouraged by every means in his power the honest attempts made by young learners in the acquisition of knowledge. He was a born teacher.

IN THE PULPIT.

The educational ideal of Dr. Arnold, which aimed at the making of the complete man, involved the union of intellectual and moral excellence. To him, therefore, the idea of the divorce of secular from spiritual instruction was impossible, nay, inconceivable in any healthy educational system. The heart should be harmoniously developed with the head. It is not strange then that the most potent and characteristic influence of Dr. Arnold emanated not from the school but from the chapel, not from the class-room but from the pulpit. The charm of his personality, "radiant with ardour divine" exhibiting, as it did, the union of simplicity with dignity, of manliness with devotion,

was irresistible even to the most reckless and indifferent among the young boys. To quote the words of Thomas Hughes: "The tall, gallant form, the kindling eye, the voice, now soft as the low notes of a flute, now clear and stirring as the call of the light infantry bugle, of him who stood there Sunday after Sunday, witnessing and pleading for his Lord, the King of Righteousness and Love and Glory, with whose spirit he was filled, and in whose power he spoke." His chief purpose in those sermons was to create in the minds of the young men, at a time of life when the spirit is most penetrable, an attitude of moral seriousness, to eradicate from their midst the common vices to which they were prone and to generate in them a searching of the heart and a consequent disgust at moral evil. His function in the chapel was not something distinct from his normal work; he was still the instructor and the teacher, only "teaching and educating with increased solemnity and energy." In his voice there was blended with his sterner tone a strain of affectionate entreaty; and the secret of his success is expressed by Hughes as: "It was not the cold clear voice of one giving advice and warning from serene heights to those who were struggling and sinning below, but the warm living voice of one who was fighting for us and by our sides, and calling on us to help him and ourselves and one another." His words found a sympathetic echo in every young heart chiefly because he himself was a living embodiment of the manly virtues that he wanted to implant in their minds. Many of them listened with awe and reverence, but all of them with their attention strained to the utmost to catch every word that fell from his lips. There was a passionate directness in those

frank appeals to the best in them to make them assimilate the living message, and prepare their minds for influences "which expand the soul, liberalize the mind, and dignify the character." As a "servant of God," the moral lessons he yearned to drive home to the hearts and wills of the young boys, with persuasive force, were the lessons of "faith in God and the duty of service to men." Even those who did not or could not fully understand the gospel then, cherished his words as a treasure; and to many his glowing and beautiful words recurred in after life with tenfold force and conviction though probably unheeded at the time. In a word, the salutary influence he exerted over the minds of the boys and men consisted in the depth of his moral force, purity and spiritual fervour.

HIS INFLUENCE.

Dr. Arnold will stand for all ages as an ideal teacher. Though three quarters of a century have passed since he died, his popularity is still on the increase and his influence shows no signs of waning. The intellectual and moral example he set before the educational world is always worthy of imitation. His influence on his contemporaries, both teachers and the general public, was incalculable, as testified to by themselves. To succeeding generations of school-teachers he has been a fountain of inspiration, unselfish devotion to duty and the pursuit of high ideals in education. A man, who, endowed by nature with the highest and noblest qualities, and possessed of capacities that would have administered a kingdom, humbly devoted his life to the education of the youth of his country, is sure to be for ever a "Beacon of hope" to guide, to cheer and to encourage

those who, by choice or necessity, have adopted the profession, nay the calling, of the teacher. Above all, his austere, simple life,—a life of purity and virtue, a life whose ideal was plain living and high thinking—is sure to exercise a profound influence on those who sincerely seek after truth, who want to imbibe the best traits in human nature, and who in their own humble way wish to dedicate their gifts and powers to the service of their fellow-men. Well might we say with Matthew Arnold that the famous Headmaster of Rugby occupies an honoured place in the glorious galaxy of those

"Souls tempered with fire
Fervent, heroic and good,
Helpers and friends of mankind."

P. K. ANANTANARAYAN IYER.

H. E. the Rt. Hon. Charles Viscount Hardinge of Penshurst, P.C., G.C.M.G., G.C.V.O., G.C.B., G.M.S.I., G.M.I.E., Viceroy and Governor-General of India, to whose kind and sympathetic statesmanship the Hindu University owes its origin, will lay the foundation-stone of the new Buildings for the University at Benares on Friday, the 4th February 1916. A very large number of invitations have been issued for the ceremony, and it is expected that the function will be a grand success on all hands,

LIFE IN AN ENGLISH UNIVERSITY.*

BY THE REV. T. C. WITNEY, B.A., Salem.

Mr. Chairman and Gentlemen:

The subject I have chosen for my lecture to-day is "Life in an English University." But in these days of general education the English Universities are numerous, and of varying types. There are Residential and Non-residential Universities, and each one has a special character and tradition of its own. I shall therefore confine my remarks to the University to which I belong and of whose life I have personal experience, namely, that of Cambridge. But as Oxford and Cambridge are the oldest English Universities, and may be said, in large measure, to have set the standard for the rest, much of what is said about Cambridge, will probably be true of other Universities also.

Before describing the present life of the Cambridge University, which I shall do from the standpoint of the irresponsible student rather than the grave professor it will be well to glance backward to the sources from which it sprang and the condition which surrounded the University at its birth and gave it its present form.

John Richard Green in his famous "Short History of the English People," tells us that the oldest two English Universities, Oxford and Cambridge, owe their origin to the intellectual awakening in Europe produced by contact with the Near East during the Crusades. Learned men travelled from city to city throughout Europe carrying with them the new knowledge brought from Bagdad or

*Inaugural Address to the Salem College Literary Society for 1915-16, delivered with Principal P. Seshadri, M.A., in the chair.

the Moorish schools of Cordova in Spain. Crowds of enthusiastic disciples gathered round them and in places where several of these learned men and their disciples settled down a University sprang up. Thus came into being the famous University of Paris and, a little later, those of Oxford and Cambridge.

Very little is known of the exact origin of the English Universities. They are first mentioned in the reign of Henry III (1216—1272), the reign in which the first great struggles for Parliamentary government took place. Green gives a most graphic picture of the University of Oxford in those days, which will doubtless apply equally well to Cambridge.

He says:—"In the stead of long fronts of venerable colleges, of stately walks beneath immemorial elms, history plunges us into the mean and filthy lanes of a mediæval town. Thousands of boys, huddled in bare lodging-houses, clustering round teachers as poor as themselves in a church porch and house porch, drinking, quarrelling, dicing, begging at the corners of the streets, take the place of the brightly-coloured train of doctors and Heads. Mayor and Chancellor struggled in vain to enforce order or peace on this seething mass of turbulent life. The retainers who followed their young lords to the University fought out the feuds of their houses in the streets. Scholars from Kent and scholars from Scotland waged the bitter struggle of North and South. At nightfall roysterer and reveller roamed with torches through the narrow lanes, defying bailiffs and cutting down burghers at their doors.

But the turbulence and stir was a stir and turbulence of life. A keen thirst for knowledge, a passionate poetry of devotion, gather-

ed thousands round the poorest scholar and welcomed the barefoot friar."

From such humble beginnings the modern Universities with their "long fronts of venerable colleges and stately walks beneath immemorial elms," and their "brightly-coloured trains of doctors and Heads" have arisen. From time to time noble Colleges in which the students might be housed and taught were erected by kings, bishops, nobles and private individuals. The oldest of these in Cambridge is St. Peter's or Peterhouse, (irreverently known as "Pothouse"), founded in 1284 by the sub-prior of Ely Cathedral. There are now 17 Colleges directly connected with the University, two great Colleges for women, five theological Colleges for Roman Catholics, Anglicans, Presbyterians and Congregationalists, and a centre for the non-collegiate University students. The long succession of noble buildings, each group surrounding a quadrangle of fresh green lawn or stone-faced ground is the most striking external feature of the town.

The University was largely founded by Church dignitaries and for many centuries the teaching was entirely in the hands of the Church. The religious influence is still seen in the Chapel, often a magnificent building forming part of each College's group of buildings, where the students gather each morning for prayers. Another trace of the religious origin of the University is seen in the gowns worn by the students, which are said to be the descendants of the old robes of the monks. Until quite recently none but a member of the Church of England could teach in the University, but that rule has now been abolished.

Still another trace of the religious origin of the University is to be found in the names of

the Colleges. They are named as Churches might be "Christ's," "Jesus," "Trinity," "Trinity Hall," "Corpus Christi" and so on.

These Colleges are no mere hostels. Each is independent of the other, and to a great extent of the University as well. They are governed by their own Heads or Principals and provide their own staff and lectures. As many as possible of the students are lodged within the walls of the College. The rest, like the students of whom Green speaks, have to find lodgings outside the College but within the town limits. But the students dine together in their College Hall and all alike, whether they live in the College or out of it, are bound to put in so many "Halls," i.e. they must dine a minimum number of times each term in the College Hall. Besides the Hall and the Chapel, another place of meeting is what is called the Combination Room. There is the Senior Combination Room for the dons or professors and the Junior for the students. Here the men gather for songs and social intercourse, smoke their pipes, read the papers and so on.

Each College has its special gown, though the differences between the various kinds are not as a rule very great. Only the graduate may wear the University gown, split at the shoulders and reaching below the knees. The gown has to be worn at lecture chapel and church and always after dark. Heavy fines are exacted from any one not wearing it at the proper time. The minimum is 6s. 8d., i.e. Rs. 5.

But a greater distinction in dress is provided by the College colours. The wearing of these is a purely student affair. Coats of all colours of the rainbow are worn by students

of the various colleges. They are known as "blazers." The name is an expressive one. To look at the violent scarlet of the St. John's blazer is almost dangerous—it so completely dazzles the eye. These blazers with scarfs of the college colours, are usually worn at sports, but ties and hat bands of a similar sort are used at all times.

*Every College has its series of Sports Clubs—*Foot-ball, hockey, cricket, tennis, fives, lacrosse and so on. Attached to all the colleges are fine playing fields or courts, and inter-collegiate matches are constantly taking place. The finest players from all the colleges are selected to play for the University in the inter-University matches.

Greatest of all the clubs in each college is the Boat Club. Every college has its racing-boat and sometimes two or three. It is a long and very narrow affair seating eight rowers and a cox or steerer. The smallest man is chosen as cox to decrease the weight as much as possible. In my day several boats were coxed by Japs. The rowers themselves are usually fine heavy fellows. Beginners are coached in "tubs," or ordinary rowing boats, before they can take their place with the College Eight. The latter, with a few reserves, turn out every afternoon often in the most better weather and with the scantiest of clothing, for their daily practice. They work like galley slaves to secure their college a good place in the races, while coaches ride along on the land path urging them on in terms more vigorous than polite. They are fined if they do not turn up every day, and when the time of the races draws near they are dieted most carefully. Even a comforting pot of marmalade is denied them and sports go

round every night to see that they are in bed by ten o'clock.

In March the first inter-collegiate races take place and the best boats are selected for the great races about the middle of June. These are very great days in the University. The town is flooded with visitors, most of them the fathers and mothers, brothers and sisters, and the future wives, or possible future wives, of the men in residence. A great stand is erected by the side of the river Cam and on it the visitors take their place while the students congregate on the banks, or at the sides of the river in small rowing boats or canoes. It is an extremely pretty sight to watch this crowd. The ladies come dressed in their prettiest clothing with brightly-coloured sunshades, and the men have on their brilliant college blazers and white flannel trousers. It is a very charming sight in the June sunshine. The Cam is a very narrow winding river, so it is impossible for two boats to race abreast. A special method of racing has therefore to be devised. This is known as "bumping." The boats are drawn up in a long line in the order of their success at the March races. There is a distance of one length between each boat. At the shot of a pistol the race begins. The aim of each boat is to overtake the one in front of it and to touch its stern with its own prow. That is called a "bump." When a boat is bumped it has to fall out of the race and the victor hurries on to escape its own pursuer and to try, if possible, to overtake still another boat. It is very exciting to watch two boats drawing close to one another, one trying its hardest to bump the other and the leading boat going at its top-most speed, while the steersman endeavours to round the bends of the river as sharply as possible and

to avoid contact with his adversary's prow by dodging to and fro. While the race goes on the men belonging to each college rush along the bank, on horseback or foot, shouting frantic encouragements to their boats. It is a wonder sometimes that no one is killed.

As in the case of other sports the best rowers are selected to represent the University in the annual contest with Oxford. From the point of view of the under-graduate, to be selected to row in the University boat is one of the highest honours to be gained at the Varsity. The race takes place on the Thames during the long Summer Vacation and is looked forward to with interest by the whole country. Every English boy or girl will be able to tell you, with emphasis, whether he or she favours Oxford or Cambridge. The colours of the two Universities—Dark Blue for Oxford and Light Blue for Cambridge—are sold about the London streets and in the most distant villages, in the form of ribbons on little monkeys of the colour of the two Universities, and worn on the day of the race, and full details of the latter are given in all the papers—even the most sober-minded.

So far I have spoken chiefly of life in the various colleges and the relations of these with one another. It is now time to think of the University as such. Roughly, the University may be said to be the union of all the Colleges, though strictly speaking this is not quite accurate, as there are some 100 students who have joined the University directly but do not belong to any of the colleges. It has its Chancellor (usually a nobleman) and Vice-Chancellor and Senate. The Senate is made up of the heads of all the colleges with the Doctors of Art, Science, Theology, etc., and all M. A.'s. (In Cambridge the B.A.

and M. A. Degrees are given for every branch of study (except Medicine I believe) not merely for Arts proper. Thus a man may be a B.A. of Music or Science, etc.) The Senate meets in a fine building where all the University business is transacted and where students are matriculated, or received into the University, and where they receive their degrees. It has the arrangement of all such matters as the conditions of admittance to the University, the setting of courses of study, the appointment of examiners and University lecturers, etc., for in addition to the College lecturers there are University professors—among the most renowned men in the British Isles or the world in their various subjects—whose lectures may be attended freely by any student. The expenses of the University are met by Matriculation and Degree fees and by fixed contributions from the colleges.

But to return to the standpoint of the student once more the University takes a most paternal interest in the under-graduate. It feels that it stands in loco parentis—in the place of parents—to him and acts accordingly. The number of those in residence has increased greatly of late and in normal times is anything between 3500 and 4000. These cannot possibly all be accommodated within the College walls and quite half have to lodge in the town. But the University is anxious that they shall live in proper surroundings and therefore forbids them to reside elsewhere than in lodgings which it has itself licenced. Naturally only respectable Lodging-house-keepers receive a licence. Of late years, to protect students from exorbitant charges the Senate has, I believe, even drawn up a list of maximum prices for such articles as coal, etc.

The University's care for the student is particularly marked at night. Every man must wear his cap and gown if he stirs out of doors after dark. He is thus marked out as a member of the University. It is a very serious offence to be found without them. To see that students behave themselves, the professors take it in turn to parade the streets, followed by two attendants. These peripatetic professors are known as proctors or progs. and their attendants as bull-dogs. To be caught by one of these University police is to be "progged."

If the professor sees an under-graduate doing anything he ought not, he sends a bull-dog to him to ask his name and college. Next morning the unfortunate offender receives a bill from the University for Rs. 5 if he is an under-graduate; Rs. 10 if a graduate. Many are the picture portrait depicting desperate students pursued by bulldogs. I remember an eminently respectable friend of mine being progged on one occasion. He and another man and myself were out one night at about 8 o'clock, in cap and gown, when my friend lighted up his pipe. To smoke in cap and gown is a finable offence, so we warned him of what might happen. But he refused to listen, saying that that was a rule observed in the breach, i.e. not at all. Next moment, however, when we turned round the corner, we ran right into a proctor and two bulldogs. Of course the proctor took his name and college and punctually next morning at breakfast time came a polite request for Rs. 5!

Still further precautions are taken to ensure the good behaviour of the students at night. They may not leave either College or licenced lodging-house after ten o'clock. The College

gates are closed and the lodging-house-keepers have to lock their doors and bar the ground-floor windows, on peril of losing their licenses. The names of all those returning from outside after 10 o'clock have to be entered in a book, with the time of their arrival, and reported to the head of the College, and small fines, varying with the time of arrival, may be inflicted. If a student is later than 12 o'clock, or is constantly late, he is called upon to give an explanation of his behaviour. This may seem very strict but it is better by far than the laxity which prevails, for instance, in Holland and Germany. I have spoken to students of those countries and find that there the restaurants are open all the night through and for many students the evening hardly begins till 12 o'clock. Needless to say this leads to a good deal of drinking and other evil practices and the Cambridge system, in my opinion, is much to be preferred.

One other instance of the University's paternal solicitude may be mentioned. The river Granta is a small stream running into the Cam. It is a pretty little rivulet overshadowed by trees, and in the months of May and June it is very pleasant to take a canoe and paddle up to some tea gardens a little way out of the town. But as canoes may easily be upset and there is often nobody to help if one falls into the water (I have been in myself!) Students have from time to time lost their lives there. So the University now refuses to allow any student to row up the Granta till he has swam a hundred yards before one of its representatives and secured a certificate.

I have already spoken of the Senate House as the official centre for the Varsity. The student centre is the Union or University Club. One great feature of the Union is its great Debating

Club. Here the great questions of the hour are debated just as they would be in Parliament. A speaker is elected and all the proceedings follow the order of the House of Commons, even to recording of votes in the lobbies. In this miniature Parliament many a great politician has been trained. Debates are led off from time to time by the members of other Universities, or great politicians are invited to plead their cause as they would before Parliament proper. They are opposed by others holding opposite views and the votes recorded as usual.

No account of the University life would be complete without mention of the Cambridge Funeral.—Like other funerals this takes place on tragic occasions only! It is the last farewell of the University to one of its members who has been disciplined and sent down, i.e. sent away from the University, either temporarily or permanently. The procession winds its way from the unfortunate individual's college to the station a distance of about 2 miles. First comes the hero of the occasion in a cab and after him, in single file, cabs containing all the members of his college, some on the roof of the cabs and some inside, blowing tin trumpets and other musical instruments and generally giving vent to the high spirits of youth. I have seen as many as fifty handsome cabs in a line, with three or four men in each, on one of these occasions! A little procession of our own was once taken for a funeral. We all turned out to bid farewell to one of our men who was coming to India as a missionary and carried him shoulder high to the station. The cabmen at the station took this for an orthodox funeral and called out "Never mind Sir never mind"; while people in the train were heard to say that they were sorry for the poor young man!

The funeral naturally brings my lecture to an end. Hitherto I have spoken as I promised from the standpoint of the irresponsible student. But the student is not always irresponsible. He has his grave as well as his gay moments. Life in a great residential University has a strong effect upon his character. In his college life he learns the value of union and *esprit de corps* and understands that he must subordinate his own aims and wishes to the good of the whole. He meets men of all types and character, and from all parts of the globe, and his wits are sharpened and his sympathies broadened by the constant clash of mind upon mind. At school as he is with men who will afterwards be famous in every branch of human activity, he feels that he stands at the centre of the Empire's life and responds to the call of the country upon his loyalty. At the present moment for instance considerably more than one half of the students of Cambridge have joined Lord Kitchener's army to fight for their country.

Above all the student feels that he stands in the presence of the mighty dead: Milton and Cromwell, Darwin and Newton, Bacon and Macaulay, Tennyson and Gray, all were students at Cambridge. I was coached for a time in the rooms at Christ's occupied by Darwin when a student. One feels this overshadowing of the great past especially when one stands in the Chapel of Trinity College and sees about one the statues of Newton, Whewell, Macaulay, Bacon, etc., and tablets to many another worthy. All this tends to brace the student's character and inspire him to walk worthily of the great cloud of instances from the glorious past, and to strive like them to be a worthy son of the 'Varsity which has set its seal upon him and sent him forth to do his work in the world.

EASY LABORATORY DEMONSTRATIONS OF GREAT ELECTRICAL APPLICATIONS.

It is well-known that the part played by electricity in our daily life is very important and steadily its importance is increasing. As such it is necessary for teachers of science to be not only conversant with the various applications themselves, but also to be able to demonstrate by the use of simple devices the principle and the elementary working involved in them.

I am sure that science teachers explain to their pupils the principles underlying these but some for want of leisure or so do not seem to pay sufficient attention to illustrations, without which a student, the development of whose curiosity in such useful directions is one of the most important functions of the science teaching, cannot easily grasp them, however keen and painstaking he may be.

Under the above title I propose to contribute a few articles on the methods of easily-demonstrating these electrical applications by using the usual laboratory-instruments. I also invite similar articles and criticisms on them from my brother scientists as this is likely to be one of the most effective means of stimulating scientific enquiry in us. In a few elementary laboratories there are manufactured-models to illustrate scientific applications such as the steam-engine, the electro-motor, electrically-driven tuning fork, and those in charge exhibit them to illustrate the various applications; but the educative value of these models is much inferior to that of the simple devices made by the teacher himself, for two reasons. The foreign scientific instrument-maker does not care so much for simplicity as for nicety in construction, and

often simplicity and explicitness are sacrificed to the commercial interest of the manufacturer, namely, to get a high price for his article, which he does by using highly-polished brass covers, mica plates and all such superfluous adjuncts. Again, such models create in the student no spirit to construct things for himself, unlike the simple devices which may often be substituted for them and which will thus enhance the interest of the student in the demonstrated apparatus.

I propose to deal first with the Morse telegraph the commonest use of electricity, which has made easy communication between distant places possible and has rendered railway travelling, one of the necessities of modern life, so free from accidents. Then I take up the simple electro-motor, the electrically-driven tuning fork and so on. The principle underlying these, is the same, namely, the strong and temporary magnetisation produced in a soft iron core by an electric current flowing in a coil slipped over the soft iron.

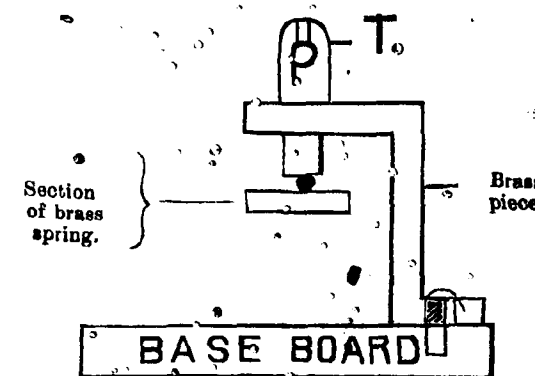
The Electric Telegraph.—The science-master teaches his students the principle of the electro-magnet enunciated above, usually showing as experimental illustrations the property possessed by an electro-magnet of lifting heavy weights as long as a current circulates and also, the electric bell. He usually treats the subject of the electric telegraph as follows.

A station A is provided with a battery having one of its poles connected to the line wire through a key, the other pole being connected to the earth. The line wire leads to another station B, where it is connected to one terminal of an electro-magnet, the other terminal of which is connected to the earth. When the key at station A is pressed a cur-

rent flows to the electro-magnet at B drawing a soft iron armature which, striking on the core of the electro-magnet, produces a click. Thus by making and breaking the circuit alternately signals are sent from A to B.

This explanation offered for the electric telegraph, though correct, is far from complete. A student may, for example, like to know how from station B signals are received back by A through the same line wire and so on. The best way to make him understand the working of the telegraph is to construct a simple model.

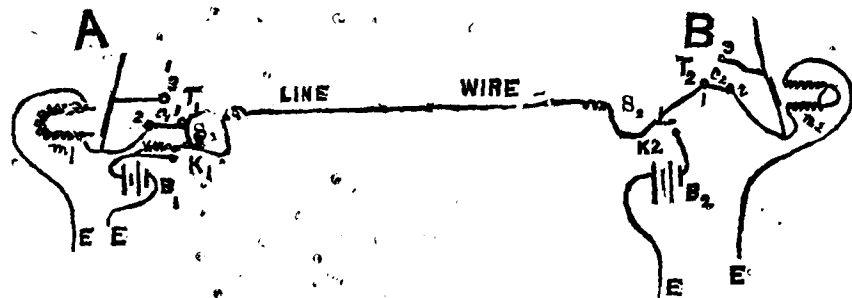
A laboratory is provided with a number of electric bells and tapping keys. From two of these electric bells the gongs are removed and to two of the tapping keys are screwed bent brass pieces with a terminal on as shown in the accompanying diagram, representing a vertical section through the tapping key.



The terminal T is in contact with the spring ordinarily making connection between one of the old terminals and the new terminal, but when the key is pressed this connection is broken and the two original terminals are electrically connected. Thus the arrangement is to serve the purpose of a Morse key, if no such key is available in the laboratory.

The diagram of connections of the complete model is shown in the figure.

There are similar sets of apparatus at both stations A and B. Let us now suppose that station A sends a message to B. When the blade of key K_1 is pressed, a current starts from B_1 passes through S_1 to the line wire and then through S_2 of key K_2 at B across conductor C_2 and to the base of the hammer of the electric bell, then traversing through the coils of m_2 (electro-magnet) to E (the earth) back to the negative pole of B_1 , temporarily magnetising the electro-magnet at B when the hammer is drawn and it produces a click. The hammer is held in contact with the electro-magnet as long as there is a current in the circuit. Thus using intermittent currents signals may be sent. Now let us suppose that from B a return message is to be sent to A. The operator at B repeats the same process with his key K_2 which produces clicks in the magnet m_1 as spring S_1 of key K_1 is in connection with conductor C_1 .



The apparatus may be made more instructive by introducing two two-way keys T_1 and T_2 (shown by 3 cups, 1, 2 and 3 in the figure) conductor C_1 of T_1 connecting 1 and 2, but it may be made to connect 1 and 3 in which case the current sent from B would travel through

C_1 from 1 to 3 to the platinum contact of the make and break hammer of the electric bell, when the hammer will be continuously vibrating. This arrangement may be of use to call the operator at A and as soon as he arrives he makes C_1 connect 1 and 2 when the electro-magnet serves as a telegraph sounder, and then presses his key which the operator at B immediately recognises by the vibrations of his hammer. He then makes conductor C_2 connect 1 and 2 of T_2 when regular messages are sent. It may be noticed in passing that the clicks produced by the tapping of the key resemble the clicks of the electro-magnet. If there are 4 electric bells in the laboratory, two of them may be used as calling bells and two with gongs removed as telegraph sounders. The two two-way keys may be constructed easily by boring 3 holes on paraffin blocks or the three holes on one side of a Pohl's commutator may be used, the central hole being connected to the tapping key.

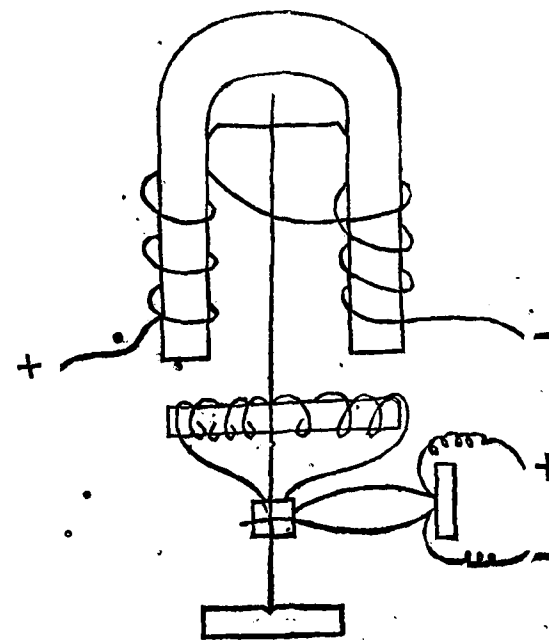
The point to be specially noted by the student is that no current is taken from the batteries except when a message is sent.

As regards earth connections all the 4 terminals may be connected to gas

pipes or water pipes near the lecture table. In our laboratory the lecture table is covered by a thick sheet of lead and the two terminals on each side are temporarily connected to the lead sheet by the big screws of the carbon poles of a Bunsen battery.

The Electro-motor.—A laboratory is usually provided with a good horse-shoe electromagnet. The armature of this has a hook screwed into it to carry heavy weights. A coil of thick wire of about 100 turns is wound in the same direction round it, the two terminals being left free. The hook is then removed and through the hole, a thin and long metallic rod ending in conical points is passed, hereafter referred to as the axis of the armature and rigidly fixed to it at a convenient position by one or two windings of wire.

Diagram of an Electric Motor.



To construct the split-ring commutator.—A small cylindrical piece of vulcanite is sawed out of a vulcanite rod and a hole drilled along its axis. This is slipped rigidly on to the axis of the armature. Two copper strips of suitable size are attached to the vulcanite piece on opposite sides so as not to touch each other and the two terminals of the coil on the armature are soldered to

these copper strips. Now two brass springs (2 pieces of thick brass wire may be sufficient) are fixed on to a wooden base by brass screws and connected at the base to copper wires.

The electro-magnet as well as its armature are supported vertically so that the armature may rotate in a horizontal plane with as little friction as possible at the bearings of its axis. This may be effected by drilling a small conical hole on the surface of a glass slab fixed to the surface of the table, into which the pointed end at the bottom of the axis supporting the armature is introduced. A small hole to carry the top of the axis is drilled in a brass piece which is placed just below the bend of the horse-shoe magnet and kept in position by fastening it to the core with a piece of string or wire. If now an electric current is sent through the coils of the electro-magnet by connecting it to a Bunsen cell and a current to the coil of the armature through the split-ring commutator such that no current passes through the commutator when the line of the armature is parallel to the line joining the poles of the electro-magnet, then the armature rotates at a fairly high speed with a humming sound. The principle here is too well-known to need any mention.

V. N. VISWANATHAN.

UNIVERSITY OF BOMBAY.

It is proposed to elect Khan Bahadur Fardunji M. Dastur as Registrar of the University for the next two years.

PLEASURES IN LITERATURE.*

The literature of a country includes those books written by the people of that country which have a general human interest and which supply æsthetic satisfaction by the manner of handling. To write such books, to read, and enjoy them, to analyse our appreciation of them methodically—all these are sources of pleasure to us. But the pleasure arising out of systematic criticism is in no way different from that which we get from any of the technical branches of Science. Both of them appeal to the intellectual side of man, and the interest in them is called intellectual delectation. A conscious process of employing our faculty of understanding is involved in both. The real difference between the highest forms of the Fine Arts and the Useful Arts lies in this—that the former appeal to our emotions and give us emotional pleasure; while the latter appeal to our intellect and give us intellectual pleasure. Whatever else poetry may be, it is the treatment of passions or the passionate treatment of a subject. Primitive man was largely a creature of emotions, intuitions and impressions. Standing on the banks of the Ganges with arms folded and mouth agape, our forefathers might have gazed for hours together on "the humid bow," charged with poetic ecstasy, but unable, however, for want of language to give adequate expression to their feelings. Gradually, of course, means of expression developed, language progressed along with the practical activities of man, reason came to be used to prune down fervent

passions, and feeling was made to yield to understanding. Prose literature, by which we mean the literature connected with the rational side of the human mind, as contrasted with the emotional, was therefore naturally later in growth than poetic literature.

Parallel to the development of poetry, there went on a very serious discussion as to what its end was. Plato founded a school of poets and critics, including the world's greatest and sternest tragedian Æschylus himself, who held that the object of all Art was instruction. The poet, according to them, was to grown-up men what the preceptor was to young pupils. But this theory held the ground only for a comparatively short period, until Aristotle delivered his æsthetic pronouncements from the heights of a second Olympus. After that, it lingered long in the critical works of Horace and his friends as also of his disciples like Sir Philip Sidney and Ben Jonson in Elizabethan England. Almost all modern art-critics, the late Mr. Courthope prominent among them, are, in a way, children of Aristotle. And the practice of all modern poets like William Morris, Swinburne and the Rossettis, clearly shows that they are devout believers in the Pleasure-theory of poetry. Nor is this in any way different from what our Sanskrit rhetoricians have pronounced. Vidyanātha is only echoing the opinions of Ānanda-Vardhan and Dandi when he says that Kāvya is like a dutiful wife in that the function of both is delightful instruction. But because instruction is also the end of the Vedās and the Sāstrās, they conclude that the element of delight is the distinguishing characteristic of Kāvya.

Emotional literature, then, is primarily intended for pleasure though the secondary

effect of education may also be associated with it. The greater the delight and the more valuable the instruction afforded by a work of art, the greater, of course, is its value and permanence. The question that naturally suggests itself next is—how does the representation of highly tragic and painful scenes and situations minister unto our sense of pleasure? They are not sources of pleasure in actual life. But when transposed into literature the effect is quite different. It need not be said that there are no pure tragedies in Sanskrit, for according to the Sanskrit rhetoricians, no play was to end with the death of the important personages as it would be injurious to the enjoyment of true rasa in a drama. In Greek too no horrible actions of murder and blood-shed were to be represented on the stage. In such situations the Greek dramatist made use of the *Ekiklema*, or mounted and movable scenery or tableaux on which the scenes or actions were portrayed, and which was drawn to the front of the stage at the right moment. For example, the scene where Clytemnestra strikes Agamemnon and Cassandra to death is shown to the audience only by means of the *Ekiklema*. But in England, where dramatic literature flourished to its highest level and where the tastes of the audience were more realistic, we have pure tragedies with any amount of horrible murders and blood-shed. There is no use doubting as to whether the final result is really pleasure or not when we read, write, or witness a tragedy. For otherwise we would not attend to similar things a second time. If a glorious, noble and truthful king were reduced to the miserable and wretched state of an abject slave, and if he were forced by circumstances to cut the throat of his own wife, it would

only be a source of extreme anguish to the spectators, and they would shrink back from it with a shudder. Or if we see another king, old and helpless, duped and deserted by his daughters, and thrust out of his court and kingdom, raving on a stormy heath in vehement terms of agonising passions; or if we see another reigning prince pretty old and careworn, dragged to and fro during wintry nights, confined in a ditch knee-deep in the filthy drainage of the city, and finally thumped to death between two tables by murderous villains, it would be nothing but agony that we too would feel, and we would willingly turn our backs against such situations. But the stories of Harischandra, Lear, and Edward II were and are among the most popular ones in literature, and in the dramatic form they have been repeatedly acted and appreciated more than many other plays. The Greek and Indian stages whereon sensational actions were carefully avoided, and the actors (in the latter case) wore masques disabling them from exhibiting emotions by facial expressions, nevertheless filled the audience with awe and shudder. Æschylus, Sophocles, Euripides and the authors of *Mudrārāksasa* and *Uttara-Rāmacharitam* were not the less enjoyed for it. I have seen many among our country-folk actually weeping every time they come to certain situations in the story of Rāma. Yet Rāmāyana is their book of daily *pāṭyanam*. All this goes to prove that tragic literature carries with it some underlying mystery by which it is capable of affording ample æsthetic delight. To explain this fact to some extent at least, the following theory has been culled out from Aristotle and the Sanskrit rhetoricians combined.

The hero in an enjoyable tragedy is always

* The substance of an address delivered before the inaugural meeting of the Kottayam College Debating Society, by Mr. P. Sankaran Nambiyar, B.A. (Honours), Lecturer in English.

an ideal character. The exact prototype of the idealised figure is never to be met with in any society. Hamlets and Macbeths and Satans are not usually found anywhere exactly as they have been pictured by the great poets. Prometheus and Orestes exist but in the *idea*. All these are idealised figures. Now, idealisation consists in the exaggeration of facts of life to such an extent as to make them typical and universal. "Some particular quality or group of qualities is thrown into relief, some commanding faculty heightened, provided that in so doing the equi-poise of character which constitutes a typical human being, is not disturbed." The ideal is thus raised above the trivial and accidental, and "by virtue of a universal element which answers to the true idea of the object, it transcends the limitations of the individual." In this way, we see that two things are gained by the process of idealisation—the elements of Universality and Beauty. Idealised presentations have their bases in reality itself. When we give our minds away to the enjoyment of such idealised presentations, our hearts beat in sympathetic response to the passions and emotions of the hero—for all emotions are latent in us, and that emotion that is exhibited in a sympathetic character is roused in us too. We lose ourselves in the hero for our feelings turn out to be the same as his. Now if the artist has succeeded in sufficiently universalising those passions, as perfect art demands, it is in this universal that we are losing ourself. In other words, the individual merges in the universal. And when every taint of egotism clinging to the world of reality is removed, when everything personal drops away, we enjoy nothing but pleasure absolute and supreme. In this connection,

I am reminded of that beautiful and vivid simile of Dr. Rabiindranth Tagore whereby he elucidates the fact that when our individuality is submerged in Universality, we do not feel the pressure of any pain. For, although we feel the weight when we take a pitcher of water from the sea, we do not feel any weight at all when we immerse ourselves in the sea in spite of the pitcherfuls of water passing over us. This sort of poetic pleasure, then, is allied to the *Brahmānanda* of our Vedantists. According to the Sanskrit *Ālankārikās*, *Rasacharvāna* is, indeed, like the contemplation of the Supreme Being, where anything other than itself is forgotten. Our mind is completely lost in Divine Beatitude. Itself it forgets. Unconscious of itself, it is conscious of pleasure, absolute and supreme. There is nothing else to be known. This is *Brahmānanda*, and this is also Poetic Pleasure. And even as the enjoyment of *Brahmānanda* lasts only as long as the Yogins are resting in their *Nirvikalpa Samādhi*, the enjoyment of *Rasa* too lasts only as long as the *Vibhāvās*, *Anubhāvās*, &c. are present and active. According to Aristotle, the nature of poetic pleasure is thus put, "Fine Art and Philosophy," while they occupy distinct territory, each finds its complete fruition in a region bordering on the other. The glow of feeling which accompanies the contemplation of what is perfect in art is an elevated delight similar in quality to the glow of speculative thought. Each is a moment of joy complete in itself, and belongs to the ideal sphere of supreme happiness. And Courthope, speaking of the dramatic art, observes, "The drama substitutes a mental process for an emotional delight, and thus transforms art to the handmaid of philosophy. It has that rare quality

of raising the reader above the point at which he merely understands, of disarming him of his critical panoply, and restoring to him once more that child-like openness of heart in which to understand is to enjoy." And the drama, we know, is the highest kind of literary composition. Thus the same end, supreme happiness, the Yōgin effects through his psychic contemplations and the *Sahridaya* through *Rasacharvāna*.

Passing over the numerous original and ingenious theories that have been put forward by our *Ālankārikās* for explaining the problem of the process by which *Rasa* is relished, we may just glance at the theory of only one, namely, *Abhinavagupta*. His theory is simple and clear. It is based on some fundamental truths in poetry. It is the in-born quality of poetic art to represent emotions and characters in general. And particular individuals are described by poets only to enable us to understand the general. The general is an abstraction that cannot be known of itself. Another fundamental principle relied on is that the poetic emotions lie dormant in the minds of all appreciative critics, whose minds are in sympathetic unison with the characters and emotions sought to be represented. Such of the spectators as have not a large capacity for emotions are incapable of relishing them. Starting upon these principles, the great Sanskrit rhetorician goes on to explain poetic pleasure in the same way in which I have already explained it as the result of the temporary loss of individuality and speciality.

What did Aristotle think about the process by which poetic emotions are relished? True, he did not admit into the pale of his criticism such emotions as are suited for comedy alone.

Comedy, he calls, "a pastime for the vulgar taste"; for in his day there were no good comedies in Greece. Still, from what he speaks of tragic pity and fear, we are in a position to infer what his views are. Butcher, one of the best exponents of Aristotle, describes how the *Katharsis* or the purgation of tragic pity and fear is effected. "The feelings of pity and fear in real life contain a morbid and disturbing element. In the process of tragic excitation, they find relief, and the morbid element is thrown off. ... We are in sympathy with the hero in whose existence we have, for the time being, merged our own. The events as they pass before us seem almost as if we were directly concerned." From this we can also more or less realise how Aristotle's theory of pleasure runs on closely parallel lines with our own, though both do not meet at the point of the realization of the Brahman.

In every case of the highest emotional literature, then, the reader or the writer temporarily forgets his self while enjoying pleasure. Having realised this fact it is not difficult to explain why Coleridge was one day seen in the midst of the crowded Strand opening his eyes wide and stretching out his arms as if to swim the Hellespont, for he had at that moment lost himself in Leander.

Those of you who have tried to write original poetry and who have had occasion to depict a character in emotional situations, must have experienced similar states. Suppose you are describing the sad plight of Rāma in the forest, after his separation from Sita. You must first forget your own personality, and think yourself to be Rāma, as *Bhavabhūty* must surely have done. And who is Rāma? *Valmiki* has openly said that

he is the type of perfect humanity, a broadly generous figure.

This element of ideality in literature is closely connected with the two human faculties of Imagination and Fancy, the difference between which, I hope, has been made too clear by Coleridge to require any special mention here. Pleasure in literary pursuits is, therefore, the direct outcome of man's imaginative faculty, by which ideal pictures are presented and appreciated. Naturally then we are to conclude that literary pleasure is enjoyed in proportion to the degree of development which one's imaginative powers have attained. This theory is equally applicable to Music, Painting, and Histrionic Art. But Literature is far superior to all these *Technæ Mimetice*, as Aristotle calls them. In it we have the additional advantage of the suggestive power of language, besides its being free from all limitations of Time and Space. That the words of a language have peculiar connotations of their own, is an admitted fact. By the "association of ideas," one set of words always gives more food to our imagination, and hence a greater amount of literary pleasure than another. The very fact that *Bhattacharyya*, one of the greatest Sanskrit rhetoricians of his day, attributed all literary pleasures to the peculiar power of words, points to their supreme importance. Having acquired a clear perception of the ramifications of verbal selection by constant and careful practice, the imaginative writer easily towers above the painter, the sculptor and the musician by the right employment of vocabulary. Poetry, it is true, touches music in such "nonsense-lyrics" as are scattered about in many an Elizabethan play. It also

verges on the side of painting in the "picture-poetry" of the Pre-Raphaelites, as for example in the "Blessed Damsel" of Dante Gabriel Rossetti. But the help of language enables the literary man to get over all limitations of time and space by which his rival artists are obviously curbed. Literary pleasure, I think, is far superior to other pleasures. This is exactly what that great English critic Charles Lamb tries to prove in his valuable contribution to dramatic criticism wherein he contends that the tragedies of Shakespeare are not to be staged.

It is the element of Romance in Literature that raises it far above the material sciences. Departure from actual life with a view to affording greater pleasure constitutes the essence of Romance. This departure may be in two ways. It may be an exaggeration of the facts of life which is called Idealisation and which has already been explained. It may also be the creation of an entirely new world out of all obvious relation to practical life around. The stories in the Arabian Nights, the mythologies and folk-lore of the ancients all belong to this class of creative literature. The "Island Valley of Avilion" is a place "where falls not hail, or rain or any snow. Nor ever wind blows loudly, but it lies deep-meadow'd, happy, fair with orchard-lawns, and bowery hollows crowned with summer sea." In the Forest of Arden where there are serpents, antlers, lions, brooks, bushes and shades and a few peasant-huts scattered about, the dwellers feel "but the penalty of Adam, the season's difference." Andrew Marvel's sweet garden-scene where ripe apples drop about his head and where luscious clusters of the vine upon his mouth do crush their wine, are full of nectarines and

curious peaches, which by themselves his hands do reach. He describes them thus:—

Stumbling on melons, as I pass,
 Insnared with flowers, I fall on grass.
 Meanwhile the mind from pleasure less
 Withdraws into its happiness.
 The mind, that ocean where each kind
 Does straight its own resemblance find
 Yet it creates transcending those
 Far other worlds and other seas
 Annihilating all that's made
 To a green thought in a green shade.
 Here at the fountain's sliding foot,
 Or at some fruit-tree's mossy root,
 Casting the body's vest aside
 My soul into the boughs does glide
 There like a bird it sits and sings
 Then whets and claps its silver wings
 And till prepared for longer flight
 Waves in its plumes the various light.

Indeed, this is exactly what the mind of the reader or the creator of such scenes does. It transcends all nature and soars high up, subject to the limitations of "poetic truth" alone, like Shelley's Sky-lark, leaving behind all that is of the earth, earthy. Literature is thus an avenue for escape from real life, and it is thus that it doubles our joy and soothes us in pain. When Herrick sings

"Of brooks, of blossoms, birds and bowers
 Of April, May, of June and July flowers,"

or when Cowper describes the rich well-watered plains of East Anglia, the souls of the writers as well as of the readers are lifted into regions of peace and joy. The poetry of the Troubadours and their imitators of mediæval England is full of such scenes—gardens where fair virgins gather flowers "party whyte and rede," and where the thrush and the robin and the nightingale sing day and night. The "Gardens of the Hesperides," the "Islands of the Blest," the "Elysian Fields" and the "Happy Valleys"

are as far off from Grub Street, or Fleet-ditch, or Moorfields or Eastcheap Fair as the Magic Island in the 'Tempest' or the beachy Bohemia in the 'Winter's Tale,' or the Utopia of Moore, or the Arcadia of Sidney, or the Atlantis of Bacon is from the dirty streets of London. Milton's Paradise is nature's whole wealth exposed in narrow room to all delight of human sense. Circling rows of goodliest trees, laden with fairest fruit, blossoms and fruits at once of golden hue appear there with gay enamelled colours mixed. The poems of Keats contain a large number of such scenes. His sensuous passion for beauty that made him proclaim to the world that "a thing of beauty is a joy for ever," his love for everything that is beautiful in nature, made him seek relief in imaginary worlds, probably as an escape from the times, as many of his contemporaries did. And Keats was only the poetical son of Spenser. Spenser has been the fountain-head of inspiration for many an imaginative poet of England. Here I can only refer you to the "Faery Queene," which if you once read, I am sure you will take up Spenser for your life-study. For during childhood, as Prof. Saintsbury points out, his work can be read for the story, during youth for the sensuous beauties, during maturity for the sound morality, and during old-age for the delightful contrast it presents between the hard world of reality and the happy world of fancy. Now, what is the nature of this pleasure that we enjoy while reading or writing such poems? It is surely a sort of emotional delectation. And it can be explained as the result of that peculiar capacity of the human mind to feel delight in the mere conception of what appears to be

happier and better. In the great romantic works, moreover, there is the additional enchantment of distance. Romance in literature is, in fact, characterised by the qualities of distance, obscurity, or mystery, and a partial or complete suppression of certain realities. Here I cannot but recollect a verse in the XIV Canto of Raghuvamśa :—

तयो रंय्य प्रार्थित मिन्द्रियार्था-
नासेदुषोः स्वप्नसुचितवत्सु
प्राप्तानि दुःखान्यपि दण्डकेषु
सन्विन्त्यमानानि सुखान्यभूवन् ॥

When Rama and Sita were enjoying their fill in beautifully-decorated palace-chambers, even the sorrows that they had suffered formerly in the Dandaka-forests became great joys to them in thought. This sums up the charming effects of distance, and this pleasure arising out of distance is a main source of Rasa in romance.

In all these cases, a certain deliberate process of refinement is essential. The coarser and grosser elements of reality must be withdrawn, covered over, or softened. "Strong animal passions, sexual love, eating, drinking, and many other realities of life, if represented in art, would only create a longing for the reality, and this, if ungratified, will be a cause of pain only. Milton therefore artfully suppresses the grossness of eating from the nutriment of the angels. If Homer has abundance of feasting, it is only in connection with sacrifices to the Gods, and consequently, the surroundings divide our regards." The knights in Malory seem to go on ever adventuring, but are never seen eating even once. The gratification of sexual love on the part of Dushanta and Sakuntala is carefully excluded from action on the

stage. And if Kalidāsa was really the author of the VIII Canto of *Kumārāsambhavam*, he has deservedly been criticised about it by many eminent Sanskrit critics. Of course I am quite aware of the numerous realistic scenes that were popular on the Elizabethan stage which are, defects from an æsthetic point of view. In such a scene as that where Tamburlaine, the hideous and almost monstrous world-conqueror rides in a chariot drawn by captive-kings and Emperors and taunts them with the sarcastic brutality of

"Holla! ye pamper'd jades of Asia,
Can you but draw twenty miles a day?" &c.; it is undoubtedly to the most inhumane of our emotions that Marlowe appeals, and although both parts of the Play were immensely popular in Elizabethan London, as Henslowe's diary proves, they would be intolerable on the stage to-day; and even under the less vivid realization of reading, the mind is only intermittently withheld from revolt by the splendour of the diction, the grandeur of the imagery and the resounding energy of the metre. The Tamil-dramas on the public platforms in Madras, I know well, show very bad critical tastes in some respects. They represent in action even the crudest passions and cravings of humanity. All these are directly traceable to the tastes of the cruder part of the audience. In the production of good literary works we should certainly bear in mind to avoid them, for they detract from the enjoyment of genuine art-pleasure.

To this class of literature which forms avenue for escape from real life, belongs also the Pastoral literature, or the literature dealing with imaginary shepherds and

shepherdesses, resting quietly under the shades of trees, and piping to one another or composing monodies on their lost loves, without knowing any cares, without feeling any pains which general mortality is more or less destined to suffer. Perhaps to us the coming of spring or of new crops and fruits may not be a matter of particular festivities. We do not eagerly watch the changes of seasons and shout with joy—"Oh, here is the season come with fruits and harvest"—[though probably the Germans in their present position might be anxiously doing so]. But in the old Attic states, the happy beings welcomed the fruitful season with great ecstasy, and that was their sole care. When we read such descriptions in literature we ourselves are transposed from this ever-busy material world to a world of serene bliss. When Theocritus wrote his first Pastoral, such pleasant beings actually existed in the rich country-plains of Sicily. Afterwards 'pastoralism' practically came to mean the town-man's dream about country-life. Later on it became a mere convention. It was used as a peg on which the writer safely hung his own personal opinions—as when Spenser used it in the "Shepherd's Calendar" for conveniently commenting on contemporary court-life, for eulogising his glorious Queen, for satirising the proud clergy, and for lamenting the death of his love. Elegies came to be commonly written in the pastoral form, which, as in *Lycidas*, *Adonais*, *Thyrsis*, &c., besides having the advantages of restraining excessive passion as well as of concealing lack of passion, has also a certain universality in its appeal, because the simple-hearted country-swains are natural beings, least affected by the artificialities and conventionalities of sophisticated life and found every-

where with little differences in the really important points of character. The elegy then becomes, by virtue of its universality, a lament for general mortality, for the death of the strong and beautiful in nature and not for any particular individual. This is the final effect. It is this truth that Dr. Johnson with his realistic bend of mind failed to grasp in his criticism of Milton's "*Lycidas*," and Johnson's criticism of the poem is therefore a magnificent failure.

The pleasure that is supplied by literature of this class is two-fold. Firstly we feel joy when we think about the fanciful situation of the innocent men of pastoral land. It is allied to the joy derivable from some of the ballads fresh with the dew of Humanity's Dawn. Even the slightest intrusion of the "faculty of disbelief" is carefully avoided. It is this pleasure that we get when we read Spenser's "*Colyn Cloute's Come Home Again*," where the poor shepherd Colyn is describing a sea as he has seen it for the first time, which is "horrible and hideous to behold" and which appears to him as something mysterious with a ship-monster over it approaching the shore. But in the conventional pastoral in which "more is meant than meets the ear," we have the additional pleasure of allegory. Ever since Cynewulf's "*Dream of the Rood*," and the Middle English "*Bestiaries*," literary men in England have always been delighted in allegories. The "*Faery Queene*," the "*Pilgrim's Progress*," the "*Idylls of the King*"—all these have an additional hold on our imagination by dint of their allegorical significance. Now what sort of pleasure is it that this element in literature gives us? A little consideration will convince you that it is the same pleasure as in metaphors. An

allegory is only a metaphor at some length in which the comparison is protracted through numerous details. It is the same pleasure as in the solution of Riddles, for Riddles are really disguised metaphors, as Aristotle pointed out for the first time. It is only an intellectual delectation. You can read the English translation of the X Book of the Rig Veda which will give you enough of such delectation. The year is spoken of as the twelve-spoked wheel and night and dawn as two sisters who "run an endless race," the one behind the other but never meet. Similarly in the Icelandic Sagas, the wind is spoken of as the "wolf of the sail," the beard as the "chin-forest" and "chin-wall," and the sword as the "battle-flash." In Anglo-Saxon the ocean is described as the "whale-path," the human body as the "bone-vessel" (*bān-fatu, bān-cofu,* &c.), and so on and so on without end. The Sagas are full of such metaphors and Kennings or inverted metaphors. Our sense of understanding feels some gratification when it finds out similarity between two objects, which is really the process when we solve riddles, or when we appreciate Kennings, metaphors, and allegories. From the works of George Crabbe and other similar realistic writers as also from the paintings of Hogarth—the principles underlying the two being almost the same—it is, I think, this same intellectual interest that we derive. Great attention is bestowed in such works upon literalness and minuteness of detail. The object imitated is scrupulously analysed, and care is taken to represent every point of it in the description. Crabbe paints the cat "as Truth will paint it and as bards will not." The French Naturalistic School of Zola and the realistic novels of the last twenty years of nineteenth century

England which were the outcome of Zola's influence, belong here. To the writers of this school, as you can learn from the works of George Moore, Gissing and Arnold Bennet, a novel approached in importance a true work of science, and it was to be based on 'documentary evidence.' Naked fact should be expressed without throwing over it any gloss of the imagination. On the other hand "everything was to be taken to the dissecting table and each part anatomised and described." In all these cases—metaphor, Kenning, Riddle, Allegory, Realism—it is the Intellect that plays the most prominent part and the appreciation is mainly intellectual, as also in what is known as metaphysicalism.

The metaphysical school of poets flourished in England in the first half of the XVII century, headed by Donne, and followed by Carew, Lovelace, Suckling, Herrick and Herbert. Their works are full of literary gymnastics or "conceits," as the Italians call them. Donne, for example, compares himself to the revolving leg of a pair of compasses, the fixed leg being his lady. The screw holding the two together is the love between them. He again speaks of prayer as a telescope, because just as a telescope brings objects nearer to our view, so prayer brings God nearer to our perception. Lovelace describes his love's glove as a tent whereof the poles are her fingers. The poet is a visitant to the tent, but the occupant is gone out. He comes away, leaving a kiss behind. Now, all these conceits form a literary delinquency of the very first order, and they are the *reductio ad absurdum* of the conceits of Elizabethan sonneteers. Sanskrit literature, and its humble hand-maid the Malayalam literature of to-day are handicapped by this gratuitous hunting after "what oft was

thought but ne'er so well express'd." One of the undisputed effects of it is the abortion of Humour in these two literatures. There is enough of intellectual wit, but very little of emotional humour. The innumerable significances that are attached to single words and the innumerable ways of Samāsa or word-combination, made the Sanskrit writer a "charter'd libertine" in the realm of intellectual exercises with the result that even the greatest Kāvya and the greatest drama are sadly wanting in that excellent type of English humour, though they brim with witty conceits. But take the works of Lamb, Shakespeare, Dickens or Thackeray. The contrast at once becomes evident. Is there any *Vidūshaka* in the whole range of our Indian dramatic literature to stand comparison with the immortal Falstaff? Is there any work in any of the Indian literatures which in point of humour can be placed side by side with Butler's *Hudibras*? So far as my reading extends, I think there is not. And I am sure we have never had any author possessing half the characteristic humour of Charles Lamb. I admit it is very difficult for us—more difficult than anything else—to be humorous writers. But continually breathing the atmosphere of English humour, we may perhaps unconsciously become healthy and succeed more or less in writing somewhat humorously.

Passing over, for want of time, the malicious pleasures in the Ludicrous, including of course Satire, Irony, Innuendo, &c., we now come on to the consideration of another sort of pleasure, namely, the peculiar interest of Plot. Plot is all-important in certain literary genres like Tragedy and Epic. Even in other literary kinds Plot plays a very prominent part in ministering unto our sense of appreciation. I

would cite here only one example and that is that of our Malayalam novel called *Mārthanda Varmā* which I regard as superior to *Indulekha*, or for that matter, to any other Malayalam novel mainly because of its superiority in plot-interest. In tragedy, and in epic, plot is the outline of the picture while other elements form only the work of the brush. Plot-interest may, however, be explained away at once as being due to the pleasure resulting from agreeable suspense. The Greek tragedies were no doubt wanting in freshness of theme, for the chief themes were drawn from those great cycles of Hellenic myth which were the common property of all, so that the audience could know everything beforehand regarding the course and issue of a play. The Greek tragedians, especially Sophocles, and their imitators—the author of *Samson Agonistes* most prominent among them—therefore made a free use of "dramatic irony" to compensate for the lack of freshness in the themes treated. In the romantic tragedies as also in comedies, 'Irony' affords an additional pleasure. The audience must of course feel delight when they have already known all the facts truly, which the characters of the play imagine otherwise. For instance *Samson* fore-shadows the approaching catastrophe which every one among the audience knows and expects, when he says (1265—1267):

"Yet so it may fall out, because their end
Is hate, not help to me, it may with mine
Draw their own ruin who attempt the deed."

By the words *draw* and *ruin* (<L. *ruina* = 'falling') he literally expresses everything that is to happen.

In Epic poetry, the importance of plot cannot be over-emphasised. What with its defects and what with its merits Milton's epic

was, is and will be popular. But I find every possibility of a better epic in case a poet with equal poetic resources as Milton were to come out and write about the present war. Beginning with a description of how the English army is all arranged and marched, the poet may portray the adventures of the heroic personages as episodes in the course of the main action. Of these, indeed we occasionally, or rather often, hear some exploits before which many an heroic action of fable and romance actually becomes pale. The subject is as grand as Milton's epic. Here too we have the great fight of Good against Evil, and let us hope that there will be the final overthrow of the Enemy and the triumph of the Righteous. But it is a question of time, and more than that, a question of a rival poet to Milton yet to come. "Be this as it may, what I mean to say is that the stories of national heroes are sources of inspiration to us, and that works with such stories for plots will be more pleasing, more popular than works with mythical and other stories for plots, provided other things are all equal. But in treating of those themes, one should bear in mind the conflict between romance and reality. To present the matter in the most romantic form, the poet must have recourse to idealisation, and the effects of distance, obscurity, mystery and suggestiveness. Corresponding to the mad attempts of many a "poet" of Malabar to-day to write a *Mahāvya* there was an Epic-mania "in the air" in later XVII and XVIII Century England—the former still being vigorously turned out in Brunel's Mills everywhere in Malabar, the latter still being reminded only by a few volumes which have somehow been saved from oblivion. If these authors had borne in mind the value of selecting the stories of the most exemplary national heroes—I do not mean

mythical heroes—I think their productions could have secured at least one element of permanency. In the case of stories dealing with the lives and vicissitudes of national heroes the effect on the reader's mind is a highly desirable one. They inspire him with feelings of strong patriotism and loyalty, and make him exclaim with Hamlet "What a piece of work is man!" The stories of Sivaji still send a thrill into the hearts of the Mahrattas. And Sivaji himself is said to have got his fire from the epic of Rāma. No Englishman can go through those volumes of exciting narratives written by some of the glorious Elizabethan authors like Hakluyt, Raleigh, Daniel, Drayton without feeling some stimulation, some stir of heart which will induce him to adventures even in the cannon's mouth for the love of his sovereign, for the love of his country, and for the love of honour—the three things for which many an Elizabethan laid by his life quite unflinchingly.

Enough has now probably been said to show how literature is a store-house of innocent pleasures and how a reader or writer of books can not only find relief in it from the hardships of real life—for literature acts like a balloon, as it were to lift us out of miseries—but can also learn more about men and things than your sciences can teach him. Indeed with an apology to Wordsworth I can undoubtedly say

One volume of Shakespeare's works
Can teach you more of man
Of moral evil and of good
Than all your sciences can.

The impulses behind literature, as Hudson points out, make it one of the noblest of arts. Firstly, there is our desire for self-expression which makes lyric poetry, biography and the essay of so great interest to us. Secondly, there is our interest in men and things which accounts for the pleasure in the epic and

dramatic forms. Thirdly, there is our interest in the world of reality in which we live and in the world of imagination which we conjure into existence, and hence the pleasure in descriptive literature. Fourthly, there is our love of form as form to which may be traced our delight in order, harmony, metre and sound. What Aristotle calls *Spoudaioteron* and Matthew Arnold paraphrases as "high seriousness" is of immense value in literature.

From what has been explained hitherto, it is quite evident that literary pursuits have sufficient importance to be adopted as the sole profession of a man. "Give me," says Fletcher—

"Leave to enjoy myself. That place that does
Contain my books, the best companions, is
To me a glorious court

In fact books are superior to companions. For "among our living companions, inexorable death often carries off the best and brightest. In books on the contrary, time kills the bad, and purifies the good." In the touching story of Ascham's last visit to Lady Jane Grey, we read how that sensible girl was living in a happy land of literature, far away from the court and hunting-ground. The world has produced the greatest men who have lived by literary pursuits alone. Nay, even those who followed other graver professions took up literature as their hobby. The greatest parliamentarians and statesmen like Burke, Gladstone, Macaulay and Morley were no less literary figures. Their literary pursuits were not only sources of pleasure to them but must have also conduced largely to their success in the path of life. To be brief, there is no profession in which literature has not its own place. Literature is indeed a force everywhere.

SCHOOL DISCIPLINE AND ITS OBJECTS.

DISCIPLINE is the means by which the teacher secures the most effective conditions for carrying on the work of Education. This definition takes a wide meaning, for it is obligatory on the teacher to form in his pupils, among others, a right character, and this discipline attempts by securing right conduct and preventing wrong doings.

"Discipline is good in proportion as it is effective in securing good order, attention, diligence, prompt and cheerful obedience and good habits; and these by means that are characterised by regularity and uniformity, by conformity to natural laws, by unobtrusive efforts, by kindness and justice and by appeal to legitimate motives."

Though the functions of a teacher and those of a disciplinarian do not in strictness coincide, one who would be a good teacher should also be a good disciplinarian. The school value of discipline may be thus summed up:—(a) It renders school work possible, for without order and obedience nothing can go on in a school, (b) it lays the foundation to a useful life by creating the good habits of order, and submission to authority, (c) it is necessary for the teacher's peace of mind and (d) it is a satisfaction to the pupils to be well-governed and managed for they do like it.

The chief requisites in a teacher to establish discipline are:—qualities, character and the personality of the teacher.

By his qualities, the teacher inspires the conviction that he is superior to them in every way, that he is aiming at the welfare of each individual and of the whole school, that his

plans have all been well thought out and arranged and that it will be utterly useless for any one to attempt to thwart him. He should possess knowledge to clear the difficulties of boys and to make them look upon him as superior to them; and kindness to create sympathy between the teacher and the pupils and to make obedience a pleasure rather than hardship. He should be just to ensure that the respect which his knowledge and kindness have secured is firmly established and be uniform to induce the conviction that whatever the teacher does rests on principle and on a secure basis. And lastly he should be firm to secure ready submission to rules and commands.

Character is the next requisite in a teacher to establish good discipline in schools. Character means a good and virtuous disposition coupled with uniformity of action and motive. 'No bad man can ever be a good teacher.' The discipline found in any school can be traced to the character of the teacher—that is, the feelings he inspires and the power he establishes over the pupils. The discipline depends more on the man than on the means which he employs. Therefore there is great need that the teacher should watch himself, he must be what he seems and must seem what he is; that is he should act simply and naturally.

Lastly the personality of the teacher also is quite essential for establishing discipline in schools. There are some who by nature are so endowed that the hearers are disposed readily to listen to and to obey. It is due to the look of the man, some attractiveness in his manner, a likeable exterior, a winning voice, friendly expression, and stately dignified bearing. This produces a powerful effect on the habits and character of the children; its power is incidental and indirect. It exer-

cises a silent influence while nothing is suspected. It produces a deeper effect than all that can be formally taught by means of direct address.

Everyone to be successful in his work should bear distinctly in mind the objects that he has to attain. This applies with great force to the discipline of the school, the maintenance of which is so important that it has been said that teaching does not exist so much for the sake of discipline as discipline for the sake of teaching.

The several objects of school discipline are:—order, attention, diligence, earnestness, obedience and good habits. Now we shall briefly consider each of them.

Order is one of the first things that a teacher should secure. Without it work of instruction would be impossible. The teacher's life would be one of worry and exertion and boys would form bad habits as the result of disorder and confusion. Order does not consist in quiet. It is impossible to obtain quietness for any length of time, for it is inconsistent with the nature of children. Quiet when it is needed or when it is ordered shows good order. It is easy to distinguish between noise of work and noise of disorder. Everything should be in the right place and done at the proper time. All movements and changes should be performed in a uniform and regular manner and by the use of signs as far as possible. Much can be done in the way of preserving order by furnishing suitable work.

The power of attention is the result of habit and children vary very widely in the time they take to acquire this habit; its development must be gradual. Great discrimination is needed on the part of the teacher as regards age and natural capacity in exacting attention. Attention cannot be secured by

compulsion; for, then, there can only be the appearance of it.

Diligence is very necessary for a vigorous and thorough progression in school-work. The teacher should try to cultivate it to the utmost of his power. Work by fits and starts should be carefully corrected. Diligence is allied to attention and the pupil should be gradually accustomed to steady, long, and even irksome employment. The business of life involves a good deal of irksome labour and it is the business of the school to prepare the pupil for it.

To secure earnestness an object that is valuable, desirable and attainable should be presented to the mind and the work involved must be of a definite kind. The teacher should direct the energies, present the needful tests and make the children see the end of each step.

Obedience depends upon the will of another. The first requisite of education is that the pupil should acquire the habit of subordinating his likes and dislikes to the attainment of a rational object. Early obedience restrains the child's inclinations and desires and lays the foundation of self-control, which consists in the regulation of instincts and desires by other considerations than impulse. The child is not strong enough to resist on impulse and therefore he should be subject at that stage to an absolute authority, to be gradually relaxed as no moral control exerts its influence and to be abandoned altogether when he cannot act for himself. Commands are for those who cannot command themselves.

Regularity and punctuality, respect for law and authority, courteous behaviour, truth, justice, benevolence, humility, all these are qualities of life-long value. In schools the boys are required among others to respect the rights, consult the feelings of others

and to act in unison with them in all that belongs to school. This is a chief duty in the world to which the school must prepare the children. In this as in other things the example of the teacher has the greatest effect. He ought to exhibit in his own conduct these rules, principles and feelings to which he desires his pupils to conform—"Do as I say and as I do."

E. R. SANKARA AIYAR.

UNIVERSITY OF MADRAS.

Intermediate Examination 1918.

SHAKESPEARE—THE MERCHANT OF VENICE, by Mr. J.H. Stone, M.A. (College Classics) ...	1	4	0
MILTON—PARADISE LOST, BOOK I, by Mr. T. V. Arakiasami Pillai, M.A., B.L.	0	8	0
BYRON—CHILDE HAROLD, CANTO IV, by Mr. E. H. Elliot, B.A. (In the Press)...			
MATTHEW ARNOLD—SOHRAB AND RUSTUM, by Mr. T. O. Hodges, B.A. ...	1	0	0

B. A. Degree Examination 1918.

SHAKESPEARE—OTHELLO, by Prof. Michael Macmillan, M.A., D. Litt., (College Classics) ...	1	4	0
TWELFTH NIGHT, by Prof. Michael Macmillan, M.A., D. Litt. (College Classics) (In the Press) ...			
MACHETH, by Dr. J. Morrison, M.A. (College Classics) ...	1	4	0
BACON'S ESSAYS—(COMPLETE EDITION) by the Rev. F. W. Kellelt, M.A. (College Classics) ...	2	4	0
POPE—RAPE OF THE LOCK, by Mr. E. E. Kellelt, M.A. ...	1	0	0
SHELLEY—ADONAI, by Mr. W.E. Hoare, M.A. ...	0	8	0
WORDSWORTH—SELECTIONS CONTAINING TINTERN ABBEY; ODE TO DUTY; INFLUENCE OF NATURAL OBJECTS; CHARACTER OF THE HAPPY WARRIOR, by Mr. E. H. Elliot, B.A. ...	0	12	0
BROWNING—RABBI BEN EZRA, by Mr. H. Dodwell, M.A. ...	0	8	0
MILTON—SAMSON AGONISTES, by Mr. E. E. Kellelt, M.A. ...	1	0	0
MATTHEW ARNOLD—MARCUS AURELIUS, by Mr. P. Seshadri, M.A. ...	1	0	0
CHAUCER—PROLOGUE, by Mr. W. J. Goodrich, M.A. ...	1	0	0
—by Mr. Geo. Maddox, B.A. ...	0	4	0

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EDUCATION IN THE MAGAZINES.

"Light Visible and Invisible," by
Dr. J. C. Bose.

Dr. Bose gave a public lecture on "Light visible and invisible" at night on the 14th instant, to a crowded audience.

Dr. Bose, in the course of his lecture, spoke of the imperfection of our senses. Our ear, for example, fails to respond to all sounds. There are many sounds to which we are deaf. This was because our ear was tuned to answer to the narrow range of eleven octaves of sound vibrations. He showed a remarkable experiment of an artificial ear which remained irresponsive to various sounds, but when a particular note, to which it was tuned, was sounded even at the distant end of the hall, this ear picked it up and responded violently. As there were sounds audible and inaudible, so there were lights visible and invisible. The imperfection of our eye as a detector of other vibrations was, however, far more serious. The eye could detect ether vibrations lying within a single octave—between 400 to 800 billion vibrations per second. Comparatively slow vibrations of other did not affect our eye and the disturbances they gave rise to were known as electric waves. The electric waves, predicted by Maxwell, were discovered by Hertz. These waves were about three metres long. They were about ten million times longer than the beams of visible light. Dr. Bose showed that these short electric waves have the same property as a beam of light, exhibiting reflection, refraction, even total reflection, through a black crystal, double refraction, polarisation and rotation of the plane of polarisation. The thinnest film of air was sufficient to produce total reflection of visible light with its extremely short wave lengths. But with the new electric waves which he produced, Dr. Bose showed that the critical thickness of air space was determined by the refracting power of the prism and by the wave length of electric oscillations. Dr. Bose determined the index of refraction of electric waves for different materials, and eliminated a difficulty which presented itself in Maxwell's theory as to the relation between the index of refraction of light and the dielectric constant of insulators. He also measured the wave lengths of various oscillations. In order to produce short electric oscillations, to detect them and study their optical properties, he had to construct a large number of new instruments. It was a hard task to produce very short electric

waves which had enough energy to be detected, but Dr. Bose overcame this difficulty by constructing radiators or oscillators of his own type, which emitted the shortest waves with sufficient energy. As a receiver he used a sensitive metallic coherer, which in itself led to new and important discoveries. When electric waves fall on a loose contact between two pieces of metals, the resistance of the contact changes and a current passes through the contact indicating the existence of electrical oscillations. Dr. Bose discovered the surprising fact that with potassium metal the resistance of the contact increases under the action of electric waves and that this contact exhibits an automatic recovery. He found further that the change of the metallic contact resistance when acted upon by electric waves, is a function of the atomic weight. These phenomena led to a new theory of metallic coherers. Before these discoveries it was assumed that the particles of the two metallic pieces in contact are, as it were, fused together, so that the resistance decreases. But the increasing resistance appearing for some elements, led to the theory that the electric forces in the waves produced a peculiar molecular action or a rearrangement of the molecules, which may either increase or decrease the contact resistance.

The education of Indian girls in Bombay, by Miss Mercy Ashworth.

Personal experience and actual knowledge of facts lent special interest to Miss Mercy Ashworth's lecture on "Girls' Schools and Colleges in the Bombay Presidency," given at the "At Home" of the National Indian Association, on November 10th, at 21, Cromwell Road. Miss Ashworth has been for some years Inspector of Schools in the Bombay Presidency, and the interesting information she gave showed that in her enthusiasm for education she kept an open eye and a sympathetic mind for useful ideas wherever she found them. She emphasised the varying needs of different parts of India and said that when she compared notes with Inspectresses from other provinces she found that the educational needs and the conditions of work were so different as to leave little common ground to work upon; methods of teaching and systems of organisation which had proved useful and successful in other parts of India were found unworkable in Bombay and vice versa. Education in the Bombay Presidency was unique; the cosmopolitan character of the City of Bombay, the presence of large numbers of Parsees amongst whom the education of women is very advanced;

and the comparative freedom from Purdah restrictions, have all powerfully influenced the trend of women's education. In this Presidency initiative in educational matters seems to lie more with the people and less with Government than in other parts of India, consequently education is less systematised, and there is greater variety in the character of the schools. Before going out to India she had been told that practically there was no education of women in India; she discovered, however, that this was far from the actual fact; in 1902 it had already taken firm root, although its growth was unequally erratic, and in many cases had followed very curious lines.

Referring to the great variety of girls' schools, she put aside the European schools as a separate problem affecting mainly European residents in India. The vernacular primary schools teach up to the fourth standard, and teach, generally speaking on simple lines, the same subjects as the lower standards of an English elementary school. The Anglo-vernacular schools carry on this education to a more advanced stage and teach through the medium of English. They ought to be on a par with an English Higher Elementary or a High School. In the highest standard of these schools pupils are prepared for a school-leaving, or the Bombay University Matriculation Examination. The mass of vernacular schools are under municipalities or local boards, and she paid a high tribute to the keen interest taken by some members of the Bombay Municipality in their vernacular schools. In the Feudatory States she said education of girls depends upon the attitude of the ruler; if he is interested, excellent little schools are found. In the State of Baroda the education of girls is very advanced, and there is a very promising State High School.

With regard to schools due to private initiative, Miss Ashworth said that under the influence of teachers with original ideas they often developed along interesting and suggestive lines. As a rule these schools did not attempt to follow the Government code, consequently each developed a character of its own, adapting itself, more or less successfully, to the peculiar needs of the locality, the class of girls attending the school and the particular educational theories of the proprietor. No two were alike, in some cases advanced educational theories were put into practice; Mme. Montessori could have found some of her most valuable ideas anticipated. The Hon. Mr. Chichigar of Bombay had established a school on very original lines in which

he put into practice some sound educational theories. In his youth he had made a careful study *in situ* of the educational systems of Germany, Great Britain and America, particularly the application of the educational theories of Pestalozzi and Froebel. On his return he worked out a system entirely his own in his school for Parsee girls, a system carefully adapted to the needs of these girls whose character and circumstances he understood, but at the same time strongly influenced by the ideals of the Western educationists. The result is a most interesting and flourishing experimental school.

The Mission Schools, she said, maintained a high level of efficiency; some of the missionaries were ladies of very high educational attainments, and under such ladies, where the continuity of the work was unbroken by ill-health, or long furlough, schools grew up which set a standard and served as models for Municipal and Local Board Schools.

The future development of women's education in Bombay depends to a great extent on the Anglo-vernacular of higher grade schools. These are the schools which are to produce the future women doctors and teachers for whom there is a real demand. It is the lack of well-educated women teachers of the right calibre which is holding back education all along the line. There is in Bombay a marked demand for the higher education of girls, both school and University, and Miss Ashworth expressed keen regret that Government had not seen its way to establishing in Bombay a High School for girls to correspond to the five Elphinstone High School for boys and to opening a special college for women in connection with the Bombay University. There are, in the Presidency, two Government High Schools for girls, one at Poona with 250, and another at Ahmedabad with 170, on the rolls. The latter school has neither a building nor staff of its own but shares that of the Training College for Vernacular Women Teachers—it is, in fact, an excrescence of the college. Objection was sometimes made to the higher education of Indian girls on the ground that they were not sufficiently strong physically to bear the strain of continued mental exertion. It is true that in many cases the girls' physique did deteriorate during the years of school life, but this was due entirely to the conditions under which they studied. Where schools were carried on under favourable conditions as regards accommodation and particularly where attention was paid to physical culture, as for example in the Alexandra High School in Bombay, the physique of the girls showed a marked im-

provement, and girls attending such schools enjoyed better health than those living either lives of idleness or overwork at home. She spoke of the difficulties of proprietors of private high schools in Bombay; the high rents, low fees, and consequent overcrowded class-rooms, oppressive atmosphere, underpaid and untrained teachers. In the absence of public high schools these private schools were crowded with pupils. The most urgent need at present was for a good Government High School which would serve as a model, and at the same time more substantial assistance in the way of grants to those private schools which were doing creditable work under the present difficult conditions. Some effort too should be made to raise school fees, at least for those girls whose parents can afford to pay. By this means it would be possible to pay higher salaries to the teachers and to insist at the same time on some degree of professional training. At present the facilities for training secondary women teachers are not very good, and moreover the women are too hard worked and have little time to spare from their work to avail themselves of the facilities which do exist. There is a Secondary Teachers' Training College for Men in Bombay and it is to be regretted that there is not a similar one for women in which selected teachers could receive a full course of training at Government expense.

The training of women teachers for vernacular school is well provided for; there are now four such training colleges in the Presidency, the two older colleges at Poona and Ahmedabad owe their existence to the efforts of Miss Mary Carpenter. These colleges are provided with good buildings and efficiently staffed; the Poona College has a roll of about 100 and that at Ahmedabad about 140. The women students are not, however, drawn from a very good social class and their general education is deficient; this could be materially improved by the establishment of more good higher vernacular or Anglo-vernacular schools. If the teachers were drawn from a better social class the parents of little girls would be more willing to send their daughters to the village schools.

There is also a demand for University education, partly by women who wish to train as doctors and others who wish to read for a degree. University lectures and degrees are open to women in India under the same conditions as to men, and women students in Bombay attend lectures at the Grant Medical, Elphinstone and Wilson, Colleges. This freedom to avail themselves of the University colleges has been much

appreciated by women students, and the numbers on the rolls are rapidly increasing, and at Elphinstone College alone there were in 1909, 40 women students, who study side by side with the men students. There are no women professors or lecturers on the staffs of these colleges and no woman appears to be responsible as warden or chaperon. However desirable from an educational point of view the co-education of the sexes may be, it is, to say the least, undesirable that Indian girls, some of whom come from homes where purdah conditions prevail, should be exposed to such an unprotected college life. A demand has now been made for a special college for women in Bombay; the need for this is admitted on all sides and Government has practically promised to provide one. Up to the present time, however, the college has not materialised.

In replying to questions, Miss Ashworth added further information, especially about private schools. In one in Gujarat, which she was invited to visit as a friend and not as Inspectress, she found the teaching in the lower school unsatisfactory, the children up to the third standard were crowded together in dark, badly ventilated rooms, and under mechanical teaching the children dull and were unresponsive. In the upper school, however, in which evidently the proprietor was really interested much better conditions prevailed. The rooms were large, light and bright. The girls were taught any subject they wished to learn; numerous musical instruments, sewing, cooking, embroidery, singing and draughts and other games. There was a reading room, supplied with every available periodical suitable and unsuitable for girls. Here the girls were, at least bright and happy and very proud of their accomplishments. In another school, kept by a Brahmin lady who had devoted herself to a religious life, the girls were educated on simple and rather severe lines. Instruction was practical and was mainly directed to hygiene; physiology and anatomy were taught, and even lessons on midwifery. She spoke also of the English teaching schools attended by Goanese girls. Her first impression of these schools was not very favourable as the intellectual standard of the girls was below that of Hindu and Parsee girls, but later she came to the conclusion that, as schools, they were amongst the most successful in the Presidency. They had succeeded in adapting themselves exactly to the special needs of the girls attending them, and although in purely intellectual attainments they did not excel—they never attempted public examinations—the girls had a fine sense of discipline, order and henger.

They were industrious and painstaking and their work was marked by neatness and accuracy. They excelled in needle-work, music and drawing, and at the end of their school life they had, as a rule, an attractive appearance and good physique.

Sir F. Currimbhoy on Commercial Education.

Sir Fazulbhoy Currimbhoy delivered the following interesting address on commercial education to the students of the Sydenham College of Commerce, Bombay, on the 15th instant.

The importance of Commercial education was brought to the fore throughout all civilized countries by the realization of the fact that the development of commerce and industry required above all a sound and systematic education in science and trade. Such an education was looked down upon in the days when a purely literary education was everywhere in vogue and this prejudice persisted even up to recent times, as was seen by the tardy recognition given to commercial education by the premier Universities of England, I mean, Oxford and Cambridge. This education was thus looked down upon not only by the cultured and professional classes but also by merchants and industrialists themselves who were under the obsession that it was not necessary for their children to study objects of which an instinctive knowledge was assumed. It was thus from all sides that the opposition to commercial education came and there was no cause for wonder that its progress specially in the British Empire, was slow. Countries like Germany and the United States stole a march over it in this respect and the results are seen in the immense driving force of their trade and industry. It was but natural that we were the last to wake up and to free ourselves from bondage to a purely literary education and to give official recognition to colleges and curricula of education relating to business and industry. For sometime past, however, the movement in favour of that special form of education has visibly gathered momentum and now the Government, the public, and the different Universities are each trying in their own way to tackle this problem which is of so great an importance to the progress of the country at large.

It was under the influence of this movement that the University of Bombay instituted a Degree in Commerce and that the Government of Bombay established this College with the co-operation of public-spirited citizens and of public institutions like the Chambers of Commerce and the Mill-Owners' Association. The College has been so recently established that it may be consi-

dered too early to speak about its success. Still from what we see, we can fairly say that under your able and distinguished Principal Mr. Anstey, it has already established itself in public favour, as is evidenced from its being attended by so large a number of students. I must, however, warn you, gentlemen, against being led away by the idea that your getting a Degree in Commerce will mean your being endowed with an insight into practical trade and commerce. A similar misconception as to the value of a course at a technical institute, for instance, has blighted many a promising career. Some of our young men when they get a diploma from some technical institute, either there or abroad, appear to think that their position will be lowered if they accept anything less than the managership of an institute or a factory. The process of disillusionment is better and to be avoided. As a fact the education which you receive is merely a preparatory training and you will have to serve a course of apprenticeship in practical life, beginning from the lowest rung of the ladder before you make yourself fit to being entrusted with higher and more responsible duties. Do not think this in any way demeaning to you. In all civilized countries this is the way to initiate young men in practical trade and commerce, and in our own country this was the system adopted long before the youth of India had the educational facilities which are to-day offered to it. If I may be excused for bringing in personal matters, I may say that I was myself required to obtain a practical acquaintance with all the departments of my firm, however insignificant or humble the duties might be, and I can never give sufficient credit to those whose sagacity ordained this, for it is the best system of combining theoretical with practical instruction. Do not place yourselves in the unenviable position of a young man who, endowed with high diplomas and gold medals, when appointed to a respectable position, was constrained to ask his superior to allow him to refer to his accountancy books before he could write up his books of accounts. The simple maxim that no honest labour is demeaning will bear repetition once more.

Here you will permit me to recall to your memory the golden advice that fell from the lips of Sir Dorab Tata. Whatever work you chance to lay your hands on, put your heart and soul into it, be it ever so mechanical, be it ever so trifling. In order to know how to command well learn to obey well. Turn to any country you choose and you are sure to find that the pioneers of industry

who now stand at a dazzling pinnacle of prestige, began life in much humbler walks. To take but one instance out of the galaxy, Mr. Andrew Carnegie, the American multi-millionaire, began life as a poor office boy, who envied the possession, by a friend of his, of a silk handkerchief. To whatever nation you turn, you can profitably take a leaf out of the biographies of its leaders of Commerce and Industry. It is not work itself that matters so much as the way in which you do it. You may have no desire to shine but always be prepared to show a record of honest work done conscientiously and efficiently—a record, I may say, to which you can proudly refer and upon which you can look back in your after-life. Conditions and circumstances in life have to be taken for granted. They are the inevitable circumstances from which you have to start to work out of the problems of life. Do a bit of work, but do it with all your might. I know I am repeating what has become a platitude when I say that College education opens but the gateway to practical life and that the habit of study and industry which you have acquired here must be continued throughout your life. It is the want of that habit which accounts to a large extent for the complaint we often hear about dillydallying in work and lack of interest in it. It is not given to all of us to rise to eminent positions in life, but we can all of us in whatever humble walk of life we are placed, lead the life of a student and devote ourselves to our work, making ourselves capable clerks, capable accountants, capable managers or capable in any other vocation we have taken up. Carlyle preached the gospel of work and of this gospel you cannot find better instances than those symbolized by the lives of the two eminent statesmen whose loss we shall never cease to mourn, I mean the Hon'ble Sir P. M. Mehta and the Hon'ble Mr. Gokhale. To them work was sacred and they were thus able to render services of a stupendous character to the land in which they were born and to the Empire to which they were such distinguished citizens.

I am constrained to-day to lay special emphasis on one of the longfelt wants of our country. While recognising the efforts made by the Government to impart knowledge in certain branches of engineering through Colleges at Poona, Roorkee and Shibpur, I am continually amazed at the absence of colleges for Marine and Railway Engineering. This absence is made all the more conspicuous by the fact that the rail-borne trade of India is growing by leaps and bounds and along with it the new earnings of the railway

and feeder lines are being opened in numbers. Engineering skill for such work has necessarily to be imported at a heavy cost, when no provision has been made for the children of the soil. Nobody can deny the increased demand for such skill. If the Government do not feel sure of their grounds, I mean of the assured success of such Colleges, let them make an experiment in that direction by opening classes of railway and marine engineering in the existing Colleges, and I hope they will have no reason to regret it. Such a proceeding would also afford a new sphere of activity to the ambition of rising young men. The success and skill which Indians have shown in civil, mechanical and electrical engineering justify our demand for a line which has so far been closed to us. At least they justify it if the students of to-day will bear in mind the fact, upon which I have already dwelt, that no stepping-stone to achievement can be disregarded. English engineers in the railway workshops in India could quote you examples of students who are theoretically qualified having been sent to them and turning out hopeless failures in practice, because they have shirked hard manual work and were afraid of getting their hands dirty by doing what they stupidly supposed was menial work. I hope that Colleges such as yours and students like you will try to eradicate that erroneous point of view and take up also the scientific study of questions like railway management, railway working and railway rates, questions which have so large a bearing on the economic development of the country.

Remember, gentlemen, that we are all passing through critical times when we are on the eve of great changes being effected in this country and when a new era of commercial and industrial development is about to dawn. At such a time what is most wanted is education, especially commercial and technical education, which will enable us to develop our trade, commerce and industries and to place ourselves in line with the most civilized people of the world. Train yourselves properly in the commercial and economic problems which confront us and you will become one of the best assets of your country and a support to the Government which has done so much for this country.

Sir Rabindranth Tagore on Spirituality in Education.

THE SYSTEM IN HIS BOLEPUR SCHOOL.

In reply to an enquiry from an Englishman, the great poet writes:—

"To give spiritual culture to our boys was my

principal object in starting my school in Bolepur. Fortunately, in India we have the model before us in the tradition of our ancient forest-schools, where teachers, whose aim was to realise their lives in God, had their homes. The atmosphere was full of the aspiration for the infinite, and the students who grew up with their teachers closely united with them in spiritual relationship, felt the reality of God,—for it was no mere creed imposed upon them, or a speculative abstraction.

"Having this ideal of a school in my mind, which should be a home and a temple in one, where teaching should be a part of a worshipful life, I selected this spot away from all distractions of town hallowed with the memory of a pious life whose days were passed here in communion with God.

"You must not imagine that I have fully realised my ideal,—but the ideal is there working itself out through all the obstacles of the hard prose of modern life. In spiritual matters one should forget that he must teach others or achieve results that can be measured, and in my school here I think it proper to measure our success by the spiritual growth in the teachers. In these things, gain to one's personal self is gain to all, like lighting a lamp which is lighting a whole room.

"The first help that our boys get here on this path is from the cultivation of love of Nature, and sympathy with all living creatures. Music is of very great assistance to them—the songs being not of the ordinary hymn type, dry and didactic, but as full of lyric joy as the author could put in them. You can understand how these songs affect the boys when you know that singing them is the best enjoyment they choose for themselves in their leisure time, in the evening when the moon is up in the rainy days when their classes are closed.

"Mornings and evenings, fifteen minutes' time is given them to sit in an open space, composing their minds for worship. We never watch them and ask questions about what they think in those times, but leave it entirely to themselves, to the spirit of the place and the time, and the suggestion of the practice itself. We rely more upon the sub-conscious influence of Nature, of the association of the place, and the daily life of worship that we live, than on any conscious effort to teach them."

We are requested to publish the following:—

"An All-India Association of Kindergarten and Junior School Teachers is about to be formed. Miss Barnett-Hurst, Allahabad, United Provinces, will be glad to furnish all particulars."

THE UNIVERSITIES.

MADRAS UNIVERSITY.

Affiliation to University.

The Government have sanctioned the affiliation to the University of Madras of the Women's Christian College, Madras, in Group iii of the Intermediate Courses of Study and in Groups (iv) and (v) of the B.A. Degree courses.

University Regulations.

The Government have sanctioned certain alterations in the University Regulations with a view to discontinuing the practice of issuing Matriculation certificates to candidates admitted to University courses under the Secondary School-Leaving Certificate scheme, and also other alterations with a view to lightening the courses of study for the Intermediate examination.

The Government have sanctioned the following alteration in University Regulation 207:—

"That in Regulation 207, which, as amended by the Senate on March 5, 1915, now reads:—

'A candidate not already eligible for the B.A. Degree, who having failed completely in the B.A. (Honours) Degree examination, desires to appear for the B.A. Degree examination, shall, for the purposes of Regulation 193, be regarded as a candidate who has failed once in the B.A. Degree examination in both parts.'

All the words after the words 'desires to appear for the B.A. Degree examination' be omitted and that the following words be substituted:—

'shall be allowed to do so without the production of a further certificate of attendance in an affiliated college.'

BOMBAY UNIVERSITY.

Tribute to Sir Pherozeshah Mehta

A meeting of the Senate of the University of Bombay was held on the 10th inst. in the Sir Cowasji Jehangir Hall of the University, the Rev. Dr. Mackinnon, Vice-Chancellor, presiding.

The Vice-Chancellor said that standing as he did in this place which they had hoped would be occupied by their departed friend he thought it his duty to say how deeply they missed the presence there of Sir Pherozeshah Mehta. Personally the speaker would never feel the Senate to be the same body without Sir Pherozeshah occupying his place therein. The speaker referred to the strength which Sir Pherozeshah contributed to the Senate and the great wisdom which he brought to bear upon all the work of the

University. He was a loyal and devoted son of this University and it became them to express their sorrow in connection with the great loss to this University and to India.

Continuing, the Vice-Chancellor said they had learnt of the death of a former member of the Senate, Col. Childe, who was connected with the University for 20 years and with the city for 25 years. Col. Childe had died in the execution of his duties as a servant of his country. He died in harness, in the discharge of his duties.

Sir N. G. Chandavarkar moved:—

‘That the Senate of the University of Bombay resolve to put on record their sense of deep regret at the death of Sir Pherozeshah M. Mehta, K.C.I.E., M. A., Barrister-at-Law, Vice-Chancellor of the University from the 1st March 1915 to the day of his lamented decease. While in him the people have lost a faithful and staunch leader, and the Government a loyal and fearless adviser, the University has been deprived by his death of one of its brightest alumni, who during a distinguished career of forty years’ public usefulness devoted himself earnestly to the service of the University and took a prominent part throughout in shaping its principles and policy in regard to higher education. As a member of the Senate from 1867 to the time of his death and as a member of the Syndicate from 1892 to 1915 he rendered continuous and effective assistance to the University in its deliberations and in its executive work. The members of the Senate are deeply grieved that they will no longer have the benefit and guidance of their late lamented colleague’s ripe experience, mature counsel, sound judgment, wide culture, and fearless sense of duty. The Senate resolve that a copy of this resolution be sent to Lady Mehta with an expression of the Senate’s deep condolence and sympathy.’

• Sir Narayan Chandavarkar said it was a melancholy thought that the long honourable and honoured career of Sir Pherozeshah had come to a close before the Senate could put the coping stone on that career by conferring upon him the degree of LL.D. But it would be a satisfaction to them to know that the Syndicate had resolved to do the next best thing possible under the circumstances and that was to put a marginal note stating that Sir Pherozeshah Mehta had been carried away by the cruel hand of death before the University could confer the degree upon him as it had resolved to do.

Mr. Mirza Mahomed Ali Khan seconded the resolution, which was passed in solemn silence, the members standing.

CALCUTTA UNIVERSITY.

Senate Meeting.

A meeting of the Senate was held at the Senate House, College Square, Calcutta, on Saturday, the 8th instant. The Hon. Dr. Deva Prasad Sarbadhikari, Vice-Chancellor, presided and there was a large attendance of Fellows.

The Senate resumed consideration of the following recommendation of the Syndicate, which was postponed at the last meeting of the Senate: ‘That the medical school at Belgachia be affiliated to the University in Medicine up to the standard of Preliminary M. B. Examination, with effect from the commencement of the next Session.’

The motion was carried on the condition that the terms stated by Sir Pardey Lukis were accepted by the school authorities.

It was then resolved (1) that Babu Panchanandas Mookherjee, M.A., be permitted to resign his appointment as Assistant to the Minto Professor of Economics with effect from the 1st of January, 1916; (2) that Babu Durgagata Chatterjee, M.A., be appointed as Assistant to the Minto Professor of Economics on a salary of Rs. 200 per mensem for a period of two years with effect from the 1st of January, 1916; (3) that Babu Jogis Chandra Sinha, M.A., be appointed Additional Assistant to the Minto Professor of Economics on a salary of Rs. 200 per mensem with effect from the 1st of December, 1915.

It was also resolved (1) that Dr. Narendra Nath Sen Gupta, M.A., Ph.D. (Harvard), be appointed Assistant Professor of Philosophy on a salary of Rs. 250 per month for a period of three years; (2) that Babu Jnanendra Chunder Ghose, M. Sc., and Babu Jnanendra Nath Mukerjee, M. Sc. (Palit Research Scholars), be appointed Assistants to Sir T.N. Palit, Professor of Chemistry, to take such part in the work carried on in the College of Science as may be assigned to them by the said Professor.

The Senate accepted the medical certificate submitted by Dr. W. H. Young, M.A., D. Sc., F.R.S., Hardinge Professor of Mathematics, and permitted him to leave Calcutta in the middle of February.

The following gentlemen were elected to the governing body of Sir Taraknath Palit Endowment for the year 1916:—Principal Ramendrasunder Trivedi, M.A., Principal Heramba Chunder Maitra, M.A., Dr. P. Bruhl, D. Sc., F.C.S., I.S.O., Rev. Dr. J. Watt, M.A., D.D.

The following gentlemen were elected to the Board of Management of the Sir Rashbehary Ghose Endowment for the year 1916:—Principal Ramendrasunder Trivedi, Mr. S. O. Mahalanobis, Dr. P. Bruhl and Mr. J. B. Banerjee.

THE PUNJAB UNIVERSITY.

The Punjab University has declared itself strongly against the handing over the control of the Matriculation to a Joint Board, consisting of representatives of the Government and the University. The Oriental Faculty of that University, before which the matter came up quite recently, carried a resolution by 27 against 4 declaring that there was no necessity for any such change as it was nothing but divesting the University of the power it had so long recognised without any legitimate reason. It was stated at the meeting that the Senate, the Syndicate and the Faculties should not pass a self-denying ordinance in favour of a Board which might not inspire confidence. A similar proposal for the establishment of a Joint Board is now before the Senate of the Bombay University and its decision will be awaited with interest.

Reviews and Notices.

“THE HINDU PHILOSOPHY OF CONDUCT,” BEING CLASS-LECTURES ON THE BHAGAVAD GITA, BY PROF. M. RANGACHARYA, M.A., VOL. I. (LAW PRINTING HOUSE, MADRAS.) Price Rs. 5.

We welcome this revised reprint of the lectures on Bhagavad Gita by Prof. M. Rangacharya. The lectures aroused keen interest while they were delivered and will, we have no doubt, appeal to a large class of readers, in their present form.

2. In a suggestive preface, Mr. Rangacharya explains his object in ‘editing’ his class-lectures and making them available to a larger public. It is a truism that the secular system of education which the British Government, rightly wedded to a policy of strict religious neutrality, organised in this country, has produced “a yawning gulf between the imported new thought and the indigenous historic life of the people with its ancient sanctions and sacred traditions.” Every thinking man feels that the nation is in a state of transition and that the only hope for the future lies, not in going back or in cutting away completely from the past but in evolving a type which will combine in itself and perpetuate the best elements in the old and the new civilisations. The author hopes that this book will be of some assistance in this task; and, in so far as it gives a complete exposition of the Hindu Philosophy of conduct and indicates its applicability to the complex conditions of modern life, the claim is, in our opinion, a legitimate one.

3. Mr. Rangacharya makes it clear at the outset that his standpoint, in these lectures, is that of a believer in Hinduism, addressing a class of be-

lieving Hindus. This attitude has ruled out speculations on a group of questions which have attractions for a certain class of writers—the origin and growth of the Krishna legend, the esoteric significance of the opening scene of the Gita and so on. These and similar questions have been written about often and one cannot help feeling that such discussions are somewhat futile. On the two questions which, naturally suggest themselves to the student at the threshold of the study of the Gita—the date of its composition and whether it is an interpolation—Mr. Rangacharya’s conclusions agree with those of Mr. Telang. Our readers are no doubt acquainted with the masterly introduction to the Bhagavat Gita in which Mr. Telang marshals, with great ability and clearness, the facts which show that the Gita belongs to an age ‘prior to the system-making age of Sanskrit Philosophy.’ He points out how, in the Gita, we have “the results of free thought, exercised on different subjects of great moment, unfettered by the exigencies of foregone conclusions or of any fully developed theory.” He then considers the character of its style and language, its versification and its attitude towards the Vedas, towards caste and towards other systems of thought and arrives at the conclusion that we can fairly take the second century B. C. as “a terminus before which the Gita must have been composed.” Mr. Rangacharya does not pursue the subject in the same detail but his remarks on the universality of Sri Krishna’s teaching, its rare power of synthesis and unification and its relation to the history of the period in pages 5 to 9 of the book before us are in accord with the view taken by Mr. Telang. As regards the question usually asked—whether the Gita is an interpolation—the author has some weighty remarks on pages 58 *et seq* of the book which will, we believe, command acceptance. Indeed, no critic with an insight into the central lessons of the Mahabharata and a sympathetic knowledge of the character of the Hindu mind will subscribe to the position that the Gita was interpolated bodily into the Mahabharata.

4. We come now to the distinctive features of the edition under review. The stanzas are explained in simple language and their relation to the main thought brought out clearly. It is also a good idea of the author to refer to and comment on the stanzas of the Githarthasangraha which forcibly sum up the leading thought in each chapter. The author has not, as he himself points out, followed the commentary of any particular school of thought. This

has resulted in some clearness though the course has some disadvantages which we indicate below.

5. In some respects, Mr. Rangacharya's work will be found distinctly valuable. In the first place, he has interpreted the teachings of the Gita with reference to modern scientific conceptions. We would instance the remarks under stanza 17 of chapter III (page 76) in which Dr. Bose's recent researches are referred to; to the comments on pantheism (page 78); to the remarks on the theory of evolution in various parts of the book and so on. Secondly, the author has, wherever possible, indicated the bearing of the lesson of the Gita on some of our institutions and the thoughts underlying them and some of the problems of the hour. Take, for example, the remarks on the caste system in pages 42 *et seq* and, later on, in pages 359 to 381 on the rationality, meaning and aim of the division of society in four castes. Though we may not agree with all that is said on the subject, we cannot deny that the views put forward are eminently suggestive and open up fruitful lines of thought. Another teaching of our philosophy which is constantly assailed is the doctrine of Karma. The exposition of this doctrine in pages 115—120 is clearness itself. Similarly, such remarks as those on the ethics of religious propaganda (pages 237—239) illustrate the application of the central concept of the Gita to modern conditions. Lastly, the most useful part of the book is that devoted to the exposition of the various aspects of the philosophy of conduct—the possibility of absolutely unselfish and disinterested action in this life. This teaching, in its manifold applications, is touched on in several parts of the book and even the lay reader who goes through the book will obtain a clear conception of this central teaching of the Gita. May we add that, at this time, when the Empire is fighting to maintain the cause of righteousness against an enemy who recognises no sort of morality, public or private, the remarks on pages 96 to 98 and 120 are particularly opposite?

6. We referred to the author's decision not to attach himself to any recognised commentary. The student therefore misses, in some places, the shades of thought so delicately brought out in his favourite commentaries. In some respects again the interpretations of stanzas differ slightly from those of the orthodox commentators, *vide* stanzas 10 to 12 and 19 of chapter III, stanzas 4 to 9 of chapter IV and so on. Also, the difference between the realisation of the Paramatma and the realisation of the Jivatma is not so well

brought out as it might be. We cannot also help feeling that portions of the book will be improved, if they are condensed. An index will also be a very useful addition.

7. Before concluding, we would express the hope that the author will be able to complete at an early date the work he has so ably begun.

A HISTORY OF ECONOMIC DOCTRINES (FROM THE
• TIME OF THE PHYSIOCRATS TO THE PRESENT
DAY), BY CHARLES GIDE AND CHARLES RIST:
TRANSLATED BY W. SMART AND RICHARDS.
(HARRIS & Co). 15s. net.

To the Indian students of the science of Economics, the names of Gide and Rist are not unfamiliar. As a lucid, full and authoritative expounder of the science of wealth Prof. Gide, especially, has gained the admiration and gratitude of thousands of students. In a country where economics is comparatively a new subject of study and where the writers of all nationalities and all schools have had their votaries and their admirers, Prof. Gide has held a unique influence; and any work of his cannot but interest the scholarly public. The present volume is, if possible, even more interesting than his *Principles*. The historic treatment of Political Economy is a method not very much in vogue in England itself. There is practically no writer, except Ingram, who has made any solid contribution to the history of economic thought. As a result of this, we, Indians, have had to follow a similar method. Quite different has been the case in France. There greater importance has been attached to the history of economic doctrines than to economics itself, so that the student is made from the beginning to study the present ideals and achievements in relation to the past ideals and achievements. A comparative method, certainly a far more instructive and informing method than an absolute and isolated study of present day science, possesses a unique value; and the present bulky and substantial volume of 670 pages supplies the ideal text-book for the purpose. The introduction, which is from the pen of the two illustrious scholars whose lectures have been translated here is a cogent and well-reasoned vindication of the excellence and the necessity of such a treatment and such a study.

The volume consists of five books, each book being divided into from three to five chapters and every alternative chapter being from the pen of one of the two great authors. In Book I, which is devoted to the founders of

Political Economy, Prof. Gide discusses the Physiocrats, Prof. Rist, the celebrated Adam Smith, and Prof. Gide again the *Pessimists* under which category he includes Malthus and Ricardo. Objection may perhaps be raised to the dubbing of these two great writers as pessimists. But Prof. Gide justifies it by pointing out how their doctrines "cast a deepening shadow across the radiant dawn of economics, giving it that strangely sinister aspect which led Carlyle to dub it the *dismal science*." They indeed nominally subscribed to their predecessors' doctrine concerning the identity of general and individual interests, but "the many cogent reasons which they have adduced against such belief warrant our classification. The antagonism existing between proprietors and capitalists, between capitalists and workmen, is a discovery of theirs. Instead of the *natural* or *providential* laws that were to secure the establishment of the order provided they were thoroughly understood and obeyed, they discovered the existence of other laws, such as that of rent, which guaranteed a revenue for a minority of idle proprietors—a revenue that was destined to grow as the direct result of the people's growing need; or the *law of diminishing returns*, which sets a definite limit to the production of the necessities of life. That limit, they asserted, was already being approached, and mankind had no prospect of bettering its lot save by the voluntary limitation of its numbers. There was also the tendency of profits to fall to a minimum—until it seemed as if the whole of human industry would sooner or later be swallowed up by the stagnant waters of the stationary state." Prof. Gide adds one other argument for calling them Pessimists, and that is "their utter disbelief in the possibility of changing the course of these inevitable laws either by legislative reform or by organized voluntary effort." (p. 119).

Book II is devoted to the "Antagonists," to the various schools which came into existence as the critics of the founders. The task of Say, Malthus and Ricardo seemed to have been complete and the symmetrical doctrine which they had elaborated seemed to have settled down, when a simultaneous attack was directed against it "from all points of the compass." These critics have been divided into five classes, *viz.*, (1) Sismondi and the critical school; (2) Saint-Simon and his collectivism; (3) the associate socialists (Owen, Fourier and Louis Blanc); (4) Friedrich List and the National school; and lastly (5) Proudhon and his followers. Sismondi came with a purely critical mind, with a haunting cata-

logue of the sufferings and miseries resulting from free competition, and disagreed with the method, the aim and the practical conclusions of the classical school. He attacked the general and abstract methods of Ricardo and his disciples and pleaded for a treatment which was based on human experience, history and observation. He condemned the too frequent generalisations of the same school and pleaded for the study of the human conditions in detail, allowance being made for the period in which a man lived, the country he inhabited, the profession he followed and so on. With regard to the aim of Political Economy, he held that it was more the science of man and his well-being than the science of wealth. "To consider wealth by itself and to forget man was a sure way of making a false start. This is why he gave such prominence to a theory of distribution alongside the theory of production which had received the exclusive attention of classical writers. The Classical school, it is true, might have retorted that they gave the first place to production because the multiplication of products was a *sine qua non* of all progress in distribution. But Sismondi regarded it otherwise. Wealth only deserves the name when it is proportionately distributed. He could not conceive of an abstract treatment of distribution, and consequently could not appreciate it. In his own treatment of distribution he devoted a special section to the poor who live by their labour and toil from morn till eve in field or workshop. They form the bulk of our population, and the changes wrought in their way of life by the invention of machinery, the freedom of competition, and the regime of private property was what interested him most." He had short conceived Political Economy as a social science "charged with guarding the happiness of mankind." Spirits still more daring attempted to discover new principles of social organization altogether. The Saint-Simonians demanded the suppression of private property, the extinction of inheritance, and the centralised control of industry by the arm of an omniscient Government. The voluntary socialists claimed the substitution of voluntary co-operation for personal interest. Proudhon dreams of "the reconciliation of liberty and justice in a perfect form of exchange from which money shall be excluded;" and finally List wanted, in place of the cosmopolitanism of the classical school a new protectionism based on the sentiment of nationality.

Book III is devoted to the reaction or rather reply of the classical school with a view to repel the onslaughts of the critics. But in such a defence differences of opinion arose. The English economists—John Stuart Mill and his followers—

lent a sympathetic ear to the critics; but the French school, with Bastiat as its chief, "struggled against all innovation, and reaffirmed its faith in the 'natural order' and *laissez faire*." Both the French school which, in spite of its orthodoxy, interpreted the classical school in a more optimistic spirit and so came to be called the *optimists*, and the English individualist-socialistic programme (as formulated by Mill) has been classified under the term *Economic Liberalism*. It seemed that this liberalism was most triumphant against socialism and the principles of the science appeared definitely settled, when there sprang up a general feeling of dissatisfaction. "Criticism which had suffered a temporary check after 1848, now reasserted its claims, and with a determination not to tolerate any further interruption of its task." The reaction showed itself prominently in Germany where a new historical school refused to recognize the boundaries of science as laid down by the English and French economists, their abstractions and generalisations, and formulated the science on the basis of *facts, observation and history*. To the same period belonged the state socialism of Rodbertus and Lassalle, the Marxian school and Christian Socialism. "All these schools or 'dis-secters' are described in Book IV."

In Book V an excellent survey of the recent doctrines is given. The remarkable revival of the theoretical studies of the science especially with the aid of psychology and mathematics; the profound change in the character of socialism (as seen in its practical ignoring of the theory of surplus-value and in its taking up questions like strikes, syndicate, co-operative societies, land nationalisation, etc.); the rise of the doctrine of solidarity (by which the human race is conceived to be one single body of which individuals are the members and state intervention is advocated within certain limits, thereby synthesising individualism and socialism); and lastly the growth of anarchism with its tendency towards extreme individualism and anarchy—all these are described in a full, entering and lively manner.

A treatise covering such a vast field cannot of course be expected to go into the minute details of the numerous systems and schools it considers; but the presentation has been so thorough, so full, so well arranged and so fresh that the reader derives a singular satisfaction by its perusal, very admirable is the combination of such a thoroughness with such a brevity; and yet the style throughout is charming and lively. It is a book which every student should make it a point to study. The index is very full and a valuable addition to the book.

AN INTRODUCTION TO ETHICS FOR TRAINING COLLEGES, BY G. A. JOHNSTON, M.A. (MACMILLAN & CO.) 3s. net.

This book is sure to be popular not merely with students in Training Colleges for whose benefit it is mainly intended, but with the general reader as well, while even the advanced student of Ethics will be pleased to find in this 'Introduction' the old familiar topics discussed with a refreshing simplicity.

At the end of the first chapter is given an outline sketch of the plan of the book. It is divided into two parts. Part I is devoted to Psychology, and presents a clear discrimination of the several elements that go to the making of character, the exact significance and the educational aspect of each being also definitely brought out. Thus Chapters II to V deal with the individual's instincts, impulses, and desires, and his emotions and sentiments, and we would invite special attention to the section on the social significance of the instincts, where pairs of the more prominent of these are shown as forming the foundations of the four fundamental human institutions of the Home, the Family, the State and the Church.

These several elements have to be organised and harmonised in a self; the author, therefore next considers the meaning of Self or Personality, and the importance of habits that make the Self. Part I appropriately closes with a chapter on Will and Conscience which are only the Self in its active and reflective aspects. Conscience, then, is not the supreme faculty that Bishop Butler invested with a peculiar sanctity; nor is it merely an aggregate of emotions and sentiments as was held by another school of moralists.

Part II, Chapters VIII to XII, deal with the topics usually discussed in treatises on Ethics, and though the limitations imposed by the character of this work do not admit of their elaborate treatment, the conclusions set forth are simple and definite. In the last three chapters there is much valuable matter which the student under training will find of great use when he actually enters upon his chosen work in life. The practical educator is the builder of his pupils' character, he has to know how to utilise the opportunities that the school affords in plenty to train them up in practising the cardinal virtues. He should so equip his pupils as to enable them to fulfil their vocations. At the same time, he should recognise that education includes every purposive human influence, that it is not a matter for the school alone, which is only one of four institutions that perform the educative function

and that, therefore, he will be efficiently discharging his duty only to the extent to which he co-operates with the other three.

The treatment throughout the book is logical, and, while the reader is not left to puzzle himself over academical discussions, controversial topics are not absolutely passed over; they are referred to in their simplest outlines and the author's conclusions set forth with decision and clearness.

BOTANY FOR SENIOR STUDENTS, BY D. THODAY, M.A. (CANTAB.) CAMBRIDGE UNIVERSITY PRESS, 1914.

We have nothing but praise for this book considered as an English Botany. The general idea is to appeal by experiment and reasoning to the intellectual rather than the mere memory side of the reader, and to be therefore attractive and instructive to the ordinary educated person who wishes to know the essentials of plant-life but cannot stomach the strings of names and botanical terms which form so large a part of most text-books. In this respect the work under review recalls Professor Fyson's "Botany for India" which was published in Madras a few years ago. And to those who know that book there is probably no better way of conveying the character of Mr. Thoday's, than to say that it is on almost exactly the same lines, but fuller and of course English not Indian. And in view of the tendency of students merely to absorb what they read and the difficulty which they naturally find in applying the knowledge so gained to the totally different plants or animals which they see around them, and of the necessity therefore that a Natural History subject should be illustrated from specimens that may be seen and handled, it must be kept in mind that a book of European or American Botany cannot really teach a dweller of the plains of India much about flowers.

The book opens with an account of the Sunflower as typical of an ordinary dicotyledonous plant. Then follow chapters on nutrition (treated by reference to easy experiments), beginning with carbon assimilation and passing on to respiration, growth, transpiration, and the absorption of mineral substances. An interesting chapter follows on the balance of function and adaptation; but it is in such a chapter as this, as also in the reference to farm practice of rotation of English crops, that the weakness of a European Botany for Indian use stands nakedly revealed. The internal structure is next treated with refreshing clearness and truth, and the uses of the various tissues and their arrangement well brought out,

The next chapters—on special forms of leaves shoots and fruits, and on the principles of classification—are very much in the style of those in the 'Botany for India' referred to above, and from an English point of view exceedingly well done. The book closes with chapters on special types, such as trees and water plants, and on the distribution of plants in associations (usually termed Ecology). These again are well done but are English.

The printing and general get-up of the book leave nothing to be desired, and except that it is English we would recommend the book as a distinct advance on anything we have seen among European Text-books of Botany; but since the reading of accounts and descriptions of plants without the possibility of handling the parts referred to is the negation of true scientific education, we are compelled to say that no foreign text-book can really supply what is required in India.

1. PRACTICAL GEOMETRY FOR INDIAN SCHOOLS, [BY R. D. KARVE. (BELL'S MODERN MATHEMATICAL SERIES). 1s.
2. PRACTICAL GEOMETRY FOR INDIAN COLLEGES, BY R. D. KARVE. (BELL'S MODERN MATHEMATICAL SERIES). 1s. 10d.

These two books form two parts of a complete text-book of Practical Geometry, covering the portion prescribed in the Indian Universities up to and including the Intermediate course. The book-work gives constructions of different problems, such as bisection of lines and angles, triangles and quadrilaterals, description of circles satisfying given conditions, etc. Each piece of book-work is followed by a set of exercises in which numerical data are given. At the end of each book, a set of Miscellaneous and University Examples is given. In the second book, problems involving similarity, common tangents to two circles, centres of similitude, etc., are treated.

While in all other respects the books are excellent, there seems to be a marked omission in the matter of giving the analysis of at least difficult problems before out-and-dry constructions are given for them. The treatment in the books, entirely synthetic as it is, is calculated more to make the student get by heart certain methods and then parrot-like apply them in numerical questions than to enable him to intelligently solve similar problems as well as allied ones. It is doubtful how far the book

can be regarded in any other way than as books of reference.

PLANE TRIGONOMETRY, BY H. L. REED. (BELL'S MODERN MATHEMATICAL SERIES). 3s. 6d.

This is an admirable text-book, quite suited for use in the intermediate classes in Indian Universities. The trigonometrical ratios are introduced in such a way that their utility may easily be seen. Problems in heights and distances, and solution of triangles, instead of being relegated to the last pages as in old-fashioned text-books, are introduced sufficiently early. Identities are not given the undue prominence usually given to them in other books. One special feature of the book is worthy of note—a chapter devoted to the application of trigonometry to problems in three dimensions.

Two points, however, seem to call for adverse remarks. The explanation of the difficult statements " $\sin 0^\circ = 0$, $\cos 0^\circ = 1$, $\tan 90^\circ = \infty$, etc.," is not satisfactory. This is a place where students generally find difficulties, and no attempt is made by the author of this book to clear them. Secondly, after treating of the trigonometrical functions of acute angles, the author devotes a chapter to those of obtuse angles alone, and afterwards takes up angles of any magnitude in the latter half of his book. This seems neither to be necessary nor desirable. When once it is found necessary to extend the conception of an angle in trigonometry, there is no meaning in stopping with obtuse angles, and then after a long interval taking up angles greater than two right angles.

In spite of these drawbacks, the book must be considered as excellent.

SPINDRIFT: SALT FROM THE OCEAN OF ENGLISH PROSE, EDITED BY CALLENDER. (CAMBRIDGE UNIVERSITY PRESS). 3s. 6d.

Spindrift is an interesting anthology of prose pieces dealing with the sea, not from the standpoint of one who is thoroughly familiar with seafaring life, but from that of the author who has only an artistic interest in it. The selection is distinctly good and all the best passages one can think of are there, from some of the simple, though impressive passages of the Elizabethan seamen, to the gorgeous eloquence of Ruskin in recent years. It is a very instructive study of the fascination exercised by the sea on the imagination of the artist from generation to generation and must find

a place in the library of every one who professes to be a student of literature.

THE POETRY AND LIFE SERIES. (HARRAP.) 1s. net each:—

MARLOWE AND HIS POETRY: BY JOHN H. INGRAM;
COWPER AND HIS POETRY: BY JAMES A. ROY.

The brochures in this Series always do credit to the editorship of Mr. W. H. Hudson. We expect any work written by Mr. Hudson himself or edited by him to be good, and we are never disappointed.

Mr. Roy's book on Cowper does not contain anything strikingly original. It may even be a complaint with some that the extracts from Cowper's verse and letters are too many and too long. The literary criticism is not of much value. Probably the fault is in the subject of the memoir. But the book has this merit, that it contains, though in brief, all that need be said of Cowper; on the biographical side, especially, the book is strong. It happens, indeed, that many of those who talk of translations of Homer do not know at first-hand the value of Cowper's rendering. Whatever the faults of his translation—and Mr. Roy holds with much reason that he followed a sound critical principle,—it must be admitted even by those who would award the palm to Chapman or to Derby or even to Pope, that there are places in which Cowper's version is not merely a better rendering but is also more poetical. Wherever Cowper found in Homer passages which were even remotely akin to the special quality of his own poetic genius it cannot be denied that Cowper is a better translator than probably the entire tribe of Homeric translators. A good selection, indeed, can be made from his *Iliad* of passages which may stand by themselves and would increase the admiration that discerning critics have for his Homer. It is on account of this conviction that we regret that Mr. Roy has not given us a sufficient number of extracts from the Homer of Cowper.

Mr. Ingram has commended himself to students of English Literature by the attention that he has for years been giving to Marlowe. The work which in 1904 he published, *Christopher Marlowe and his Associates*, is the most authoritative statement of the facts concerning the life of Marlowe. We are lucky in having another book on Marlowe from the same competent scholar. Mr. Ingram makes use in this book of information which he has been able to garner since 1904. Mr. Ingram's interest is more in biographical matters than in literary criticism. Whether we agree with Mr. Ingram

in holding that Marlowe's 'premature death' was the greatest loss English literature suffered, or no' we must perceive the importance of Marlowe in literature, and we must welcome any attempt to popularise the work of that master-mind. We who enjoy the fruits of Mr. Ingram's laborious researches cannot but thank him for making available to all in a well-written brochure of small compass and of slight cost the life and the work of the great predecessor of Shakespeare.

PAVALAKKODI, BY S. RANGASWAMI-AIYANGAR 6 as.

This is one of the novels that have been appearing in recent years in which the ancient stories of this land are accessible to modern readers. The author has followed the work of the great Pukazhëndhi, and has produced a novelette which is very interesting. We wish that modern critics of our vernacular literatures would bear in mind what Mr. Aiyangar has pointed out in the preface,—that works serving the same purposes as modern-day novels were not wanting in this country even many centuries back. We would like to put in a word for the excellence of the style. Mr. Rangaswami-Aiyangar writes exceedingly well, and the language is dignified without being pedantic. We understand that this is a maiden attempt; we hope that the author would be encouraged by the welcome given to this novel to bring out others.

PUBLICATIONS RECEIVED.

The Accountant's Friend, by F. M. Dalal, M.A., N. R. Thanavala, B.A., F.T.A.A., and P. Mistry, B.A. Bombay: Dalal and Thanavala. Rs. 2-12.

The Tamil Saints, by M. S. Purnalingam Pillai, B.A., L.T. Madras: Natesan. 12 as.

Warfare in Ancient India, by P. Jagannathasami, B.A. Madras: Natesan. 4 as.

Vemana, the Telugu Poet and Saint, by O. Ramakrishna Rao. Madras: Natesan. 4 as.

India's Untouchable Saints, by K. V. Ramasami, B.A. Madras: Natesan. 6 as.

A Book of Selections from the Writings of R. L. Stevenson, by S. G. Dunn, M.A. Bombay: Longmans. Re. 1.

The Pandav Princess, by Wallace Gandy. London: Macmillan. 1s.

Elementary Geometry, Theoretical and Practical, Vol. II, by W. E. Paterson and E. O. Taylor. Oxford: Clarendon Press. 1s. 8d.

Sri Sankaracharya and His Kamakoti Peetha, by N. K. Venkatesan, M.A., L.T., Government College, Kumbakonam.

Tales and Legends of Ancient Burma, by S. W. Cocks, M.A. Bombay: Cooper. 12 as.

A First History of India, by H. L. O. Garrett, M.A. Bombay: Cooper. 12 as.

A First Book of English Verse, by F. R. Tomilson, B.A. Bombay: Cooper. 12 as.

Seven Letters to Indian School Boys, by A. C. Miller, M.A. Bombay: Oxford University Press. 6 as.

Selections from the Poems of John Keats, by A. Hamilton Thompson, M.A., F.S.A. Cambridge: University Press. 2s. net.

The Orient Pearls, Indian Folk-Lore, by Shovona Devi. London: Macmillan, 2s. 6d. net.

BOOKS AND PAMPHLETS FROM THE C.L.S., MADRAS.

Methods of Teaching Village Christians to Read, by Rev. H. D. Griswold, Ph. D. 2 as.

Columbus. 1 anna.

The Origin of Caste, in Tamil, by A. S. Appasami. 6 ps.

The Merchant of Venice, in Tamil. 1 anna.

The Strength of Love, by Miss Louise Marston, translated into Tamil, by the Rev. N. Devasahayam, B.A. 4 as.

Mental Arithmetic, by Mrs. Aberly and G. Satyanandam, in Telugu. 3½ as.

Christian Evidences, by W. H. Campbell, M.A., B.D. in Telugu. 8 as.

The Call of the King, in Telugu. 4 as.

Once a Year, in Telugu. 1 anna.

Indian Educational Notes

MADRAS.

Public Instruction in Madras.—The following G. O. No. 1438, Educational, dated 29th December 1915, on the Report for 1914-1915, has been issued:—

Imperial grants.—During the year under review three additional grants were received from the Government of India. There were two recurring grants one of 25 lakhs for education generally and one of 30 lakhs for the improvement of Muhammadan education, and a non-recurring grant of Rs. 16,000 towards the construction of a Muhammadan hostel in the City of Madras, all were fully expended within the year. The final proposals for the utilization of the recurring grant for Muhammadan education not having matured before the close of the year, the year's grant was spent on non-recurring items connected with the same object.

General statistics of progress.—The year was one of general advance the total number of institutions of all grades and their strength having increased by 984, or 3 per cent. and 73,010, or 5 per cent. respectively, though the increase in the latter case was not as marked as in the previous year. In schools for Indians, there was an accession of 15,055, 6.6 and 5.0 per cent. respectively, to the number of students receiving collegiate, secondary and elementary education.

Total expenditure.—The total expenditure for the year, direct and indirect, from all sources amounted to 193.5 as against 180 lakhs in the previous year. Of this sum Provincial funds contributed 83.64 lakhs, local and municipal funds 21.77 lakhs and fees and other sources about 88.11 lakhs. The percentages of aggregate outlay from public and private funds to the total expenditure remained practically the same as in the previous year. Of the total expenditure, the "direct" outlay advanced by nearly eleven lakhs and the "indirect" by about three lakhs and elementary schools claimed 53.31 lakhs from public funds, or 7.42 lakhs more than in the previous year, and the major portion of this (45.52) was allotted to elementary schools. The grants-in-aid from Provincial funds to institutions under private management aggregated 32.06 lakhs, or 25 lakh less than in previous year; those from district board funds remained almost stationary, while those from municipal funds declined from 7.3 to 6.1 lakh. The average annual cost of education per head of the population was As. 7-6 as against As. 7 in the previous year.

A special feature of the expenditure of year was the disbursement of a sum of 2.36 lakhs from Provincial funds on the acquisition of playgrounds.

University and Collegiate education.—Events of importance connected with the University were the appointment of a University Professor of Indian History and Archaeology and the delivery of special lecture on "Cities in Evolution," "Drainage Works" and "Investigations in Acoustics" by Professor Geddes, Mr. J. W. Madeley and M. R. Ry. C. Venkata-

raman, respectively. The University was also engaged with the question of the improvement of the study of vernacular languages during the intermediate course and the investigation of the important question of the regulations for admission to the collegiate course of holders of secondary school-leaving certificates. The latter question is still under examination. In the field of collegiate education the most noteworthy step taken was the opening of a college for women in Madras by the Government. This institution has been affiliated to the local University as a second-grade college. There was a satisfactory increase in the number on the rolls in the Arts Colleges. The strength of the Engineering College showed an appreciable advance, while that of the Law College and the Teachers' College remained almost stationary.

Secondary and Elementary education.—The number of secondary schools increased by one; and four of the incomplete secondary schools of the previous year developed into complete secondary schools during the year under report. This factor and the general improvement in the attendance at existing secondary schools resulted in an increase of 6.7 per cent. in the total number of pupils availing themselves of secondary education. The strength in the three highest forms shared in this general advance to a proportionately greater degree than in the previous year, thus evidencing the growth of a desire on the part of parents to leave students at school long enough to complete the course. Orders were passed during the year on proposals for the improvement of the study of languages other than English under the Secondary School-Leaving Certificate Scheme; but effect has not yet been given to them pending the revision of syllabuses and the drawing up of textbooks. The Government have, since the close of the year, afforded special financial help to enable local boards and municipal councils to improve the pay of the pandits and other language teachers in the secondary schools and colleges maintained by them as had already been done in the case of Government institutions.

The advance in elementary education noticed in previous years was maintained. The number of public elementary schools for boys and their strength rose from 26,005 and 1,088,686 to 26,905 and 1,143,995, respectively.

Several important questions connected with elementary and secondary education formed the subject of discussion at the informal conference of inspecting officers held by the Director of Public Instruction in June 1914. These are engaging the attention of the department; and some of them will be placed for further discussion before a conference of officials and non-officials which will be summoned shortly.

Special education.—The transfer of the control of industrial education to the Director of Industries is mainly responsible for the fall in the number of schools for special education from 204 to 166. The question of opening additional training schools for

masters and converting some of the large and important Government girls' schools into training schools for mistresses is engaging the attention of the department. There was a further fall in the attendance at the School of Arts and the School of Commerce, Calicut, the decline being attributed in the case of the latter institution to the introduction of commercial subjects for the school final course in many secondary schools. With a view to inducing more students to avail themselves of the instruction imparted in the School of Arts, the Government have, since the close of the year, sanctioned the institution of thirty additional scholarships in the school.

The year was notable in that in it were taken the first steps towards imparting correct methods of giving manual training to students, the experts sanctioned for the purpose having arrived and commenced work.

Female education.—The education of girls exhibited a further satisfactory advance, there having been an accession of 72 to the number of schools intended solely for Indian girls and of about 18,500 to the number of girls under instruction, including those institutions not specially intended for them. Thirty-one and 38 Brahman widows were under instruction at the close of the year in Madras and Vizagapatam, respectively.

European education.—The number of institutions intended for Europeans remained stationary, and there was a slight decline in their strength. A scheme for the establishment of a training college in Southern India for the domiciled community in conjunction with the Lawrence Memorial School, Ootacamund, is now under consideration.

Muhammadan education.—The improvement under this head noticed last year was sustained. The number of institutions for Muhammadans under public management rose from 839 to 886 and their strength from 51,318 to 55,554.

Panchama education.—This branch of education showed considerable expansion. Local Boards alone opened as many as 84 new schools for people of this class. It is especially noteworthy that secondary education has begun to attract the attention of this community, there having been an increase of more than 63 per cent. during the year in the total number of Panchama pupils in secondary schools.

The year was one of progress in all directions on which the Hon'ble Mr. Stone and his department may justly be congratulated.

The Madras Christian College Day.—The Madras Christian College Day celebration was held recently in the College Hall in which many past and present students took part. The Professors of the College attended the function. The guests of the day were entertained at breakfast at about 10.30 A.M. There was a social gathering at 4 P.M., and a public meeting was held at 5 P.M. in the

Anderson Hall, with Mr. R. Srinivasa Iyer, M. A., in the chair. A large number of the past and present students of the College and the Professors attended the function. The Chairman proposed the toast of the King-Emperor, and it was responded to with loud cheers. The Secretary of the College Day Committee, read a number of telegrams from many respectable gentlemen, old students of the College, expressing their inability to attend the function and wishing it all success.

The unveiling of the portrait of the late Prof. S. Rangiah Chetty by Mrs. Skinner, formed a part of the programme of the evening function.

Mr. P. Nagabhushanam, M.A., B.L., made a statement giving a short history of the movement and said that the movement was started in 1906. The late Mr. Rangiah Chetty was the Assistant Professor of Mathematics for a number of years and he was also the Superintendent of the Vernacular Studies in the College. Soon after his death in the Railway accident an appeal had been made to his students to contribute towards the memorial fund. The response was sincere and wide. Among the contributors to the fund were the Rajah of Venkatagiri, the Rajah of Pithapuram and the Hon'ble Sir P. S. Sivaswamy Iyer. The portrait cost them something like Rs. 400 and they had proposed to utilise the large balance in instituting a University scholarship to perpetuate his memory or in building a spacious hall named after him with a library containing valuable Vernacular books. He then requested Mrs. Skinner to unveil the portrait. The portrait was unveiled by her amidst loud cheers.

Mr. R. Sreenivasa Iyer, M.A., the Chairman, then proposed the toast of the Madras Christian College and addressed the audience in a long speech. In Madras there are a dozen Special Tests for the Government Clerical services. There are also 21 technical examinations, each of which has Elementary, Intermediate and Advanced courses. The subjects range from bread making, tailoring and shoe-making to music, painting and engineering. There are besides group certificate and diploma examinations intermediate and advanced for particular trades and professions. As for the University examinations you will see that the standard is higher and the percentage for a pass is also higher than in the other Universities of India. These many and kind examinations naturally lead to cram and destroy all initiative. Dr. Mitter himself fought strenuously against them. A thorough medical examination of our boys in schools such as was conducted in Bombay a few months ago, would reveal how large numbers of our boys especially the brighter ones have poor eyesight, bad teeth, indifferent digestion and so on. We remember the chorus of public discontent evoked this year by the results of the School-Final and the Intermediate Examinations. We are a long suffering people but that should not prevent the redress of real hardships before it is too late. It is cruel

to try or experiment with the lives and happiness of other peoples, boys at school. This is a serious problem which requires more anxious and thorough consideration than I can give to it on this occasion. The gravity of the situation is already being perceived by our public men. Let me hope that our boys will soon be rescued from the failure and disaster such as may be caused by over-study or useless learning. I would confine myself to dealing at some length with the manner in which education is imparted to us. Here we find a child being set to learn the English language; it takes him eight or ten years to learn it and it is only then that real education begins for him. During the first eight or ten years he is expected to think in English, so as to follow the education that is to be given him later on in that language. One result of learning the new knowledge in English is that he is unable to think or impart that knowledge in the Vernacular. English is one of the most difficult language to learn, utterly unlike in every respect to any of the Indian languages. The child is put to a very great strain indeed in passing through this ordeal. The fact that the child does not complain or is not conscious of it makes it all the more cruel. How difficult the language is may perhaps be perceived when we find that adults who are able to learn many Indian languages find it hard to learn English. The end of it all is that the educated young man begins life handicapped by the waste of ten years of the best part of a boy's life; his constitution is undermined and he is unable to bear any further physical or mental strain. It is no wonder therefore that when he finds the struggle in life hard, his constitution breaks down, bringing in disease and early death.

There is already a general cry that our vernaculars are neglected and everybody agrees that their study should be encouraged. We are ready to praise our educated men imagine they are improving our lot if they devote their time to the study of classical Tamil or Telugu and wrangle about the respective merits of the classical Tamil or Telugu and its popular counterpart. This is simply a frittering away of our energies in academic subtleties without profiting any one. If you allow the vernaculars to take the place which English occupies at present, everything would come right. English will not of course, go out of any scheme of education, but it should occupy a second place and a predominant second place.

The late Mr. K. Venkatarama Aiyar.—We regret to record the death at Kumbakonam, of Mr. K. Venkatarama Aiyar, a retired teacher of the Town High School of that place and a zealous citizen who took keen interest in communal and public affairs. Mr. Venkatarama Aiyar was a very successful schoolmaster and was respected as a man of high character. He was deeply religious, but he deprecated the perversion of religion to base ends and the mismanagement of temples and mutts. He took an abiding interest in education, especially in the education of girls and had cherished an idea of

establishing a girls' school at Kumbakonam where Sanskrit, a vernacular, arithmetic and Indian music could be taught. He was an author in his own way, having written in Tamil the lives of Gladstone and Abraham Lincoln and translated into the same language a few of Shakespeare's plays.

Canara High School Day, December 1915.—The combination of the annual prize-distribution with the gathering of 'Old Boys' which was first celebrated in the Canara High School, Mangalore, in April 1915, was celebrated for the second time on the 26th December 1915, as the old boys at their last business meeting had resolved that the School Day should hence forward be celebrated during the Christmas Holidays. There were the usual sports and refreshments. At the business meeting of old boys held in the morning it was resolved that as the school will complete 25 years of its career in 1916, the Silver Jubilee of the School should be fittingly celebrated next year, and for the perpetual commemoration of the Jubilee, the Old Boys of the School should raise a fund entitled the Canara High School Silver Jubilee Commemoration Fund; and that out of the moneys raised for the said fund, suitable memorials to Mr. A. Vasudava Rau, and the late Mr. A. Srinivasa Rau should be established. The form which the Jubilee Commemoration is to take eventually will be decided by the contributors themselves at the next School Day, but the idea popular among Old Boys is that the main item of the Commemoration should be the provision of a spacious playing ground for the boys of the school. It was also decided that the old students' Union, which has been dormant for some time, should begin work afresh. In the evening, after the recitation of Sanskrit hymns and the singing of Kanarese and English songs, the School Toast was proposed by Mr. E. Vasudevaya Rau, B.A., B.L., a leading Vakil of Karkul. He traced the progress of the school from its commencement in rented buildings to its present flourishing state, and placed among the most important causes fostering the development, the noble personality of the first President, the late Mr. A. Subba Rau, and the self-sacrificing zeal of the teaching staff. The Headmaster then read the report of the school for 1915, which showed among other things that the strength of the school now stands at 712, and that the results at the public examinations have been satisfactory. Three old boys of the school are serving with His Majesty's forces as members of the Indian Medical Service, two in Europe, and one in Mesopotamia; and one old boy has joined the staff of the Hospital Ship "Madras." Three old boys are studying at the British Universities. Four old boys qualified themselves for the L.M. & S. degree of the Madras University in the year under report, and one for the B. A. Honours degree. The School library has now 4561 volumes, and has been pronounced by Mr. Yates, Inspector of Schools, to be an unusually good one for a High School. The Hostel attached to the school has 78 boarders, and the Hostel buildings have been ex-

ended during the year. This and the extension of the school buildings have resulted in a net cost during the year 1914-1915 to the management of Rs. 6567-1-11, which, it is hoped, will be materially reduced, when the school receives the grant for the school extension. Prizes both for class subjects and sports were then distributed. Over Rs. 460 were contributed mainly by old boys for the School Day. The oil-painting of the late Raj. Saheb M. Gopala Rau was then unveiled after a short speech descriptive of his life and character by Mr. Vorkady Rama Rau, retired Deputy Collector, in which after pointing out that the late Mr. Gopala Rau was one of the first in his community to receive higher education, Mr. Rama Rau stated that he had discharged his judicial duties in a fearless spirit, and his duties as a member of the School Board in a typically conscientious manner. He also narrated a few incidents to show the simplicity of Mr. Gopala Rau's character. The Chairman of the evening, Mr. S. Raghunathaya, B.A., B.L., retired Subordinate Judge, and non-official President of the Mangalore Taluk Board, then spoke regretting the dire conflict in Europe, started by Germany for her selfish purposes, which was retarding the world's progress. He exhorted those interested in the school to improve the financial condition of the school. An English farce entitled 'Make Your Wills' was then enacted by the boys of the school creditably and to the great enjoyment of the audience, and the proceedings concluded with 'God Save the King.'

The Board Secondary School, Arni (N. Arcot).—The Board Secondary School Juvenile Association was started on the 12th September 1914, and ever since it has been doing good work. The members of the Association take a keen interest in all its deliberations.

It has recently performed a pleasant function. It had a large social gathering and enacted some of the important scenes from Shakespeare's 'Merchant of Venice,' with M. R. Ry. C. S. Deva-raja Aiyar Avergal, District Munsif, in the chair. The improved theatre in the school hall with new scenes and the neat arrangement presented a lively appearance.

Then an appeal was made in fitting terms to the public for financial assistance. It was effective, and a gentleman of the place, an ex-student of the school, came forward and became its patron. The Chairman in his concluding remarks warmly congratulated all the actors and spoke at some length about the scope of the Association, its work, and the efficiency and co-operation of the staff. The singing of the National Anthem and Mangalam brought the proceedings to a happy and successful termination.

The Mahomedan Educational Conference.—The following is an extract from the proceedings of the Standing Committee held at the Anjuman, Mount

Road, Madras, on Sunday, the 23rd January 1916 at 5-30 P. M. :—

Read letter, dated 15th January 1916, from the General Secretary, the Mahomedan Educational Society, Vaniyambadi, inviting the Standing Committee to hold the next sittings of the Conference at Vaniyambadi in March next.

Resolved that the invitation be accepted.

Resolved that Mr. M. Hydari, B. A., Home Secretary to H. H. the Nizam's Government, be invited to preside at the Vaniyambadi Sessions of the Conference.

Resolved that a Subjects Committee consisting of the office-bearers, such members of the Standing Committee of the Conference as are resident in Madras and in the North Arcot District and the following gentlemen be formed with Mohamed Ibrahim Saib Quraishi as its Secretary.

To draft suitable resolutions to be placed before the Conference;

The Subjects Committee will sit from time to time as may be necessary either at Madras or at Vaniyambadi and will also meet on the eve of the Conference at Vaniyambadi to draw up a programme for the sessions and approve of the proposed resolutions in their final form. This meeting will be open to all such members of the Conference as may desire to take part in its proceedings. This meeting will be notified in the press a few days previously.

Seven members shall form the quorum for Subjects Committee meetings.

Resolved that the Joint Secretaries be authorized to appoint travelling agents to popularise the objects of the Conference and to enlist members and visitors as usual.

Read the statement of accounts up to the end of December 1915.

Passed.

Chatrapur Onslow Institution.—The prize-distribution ceremony of the above institution was celebrated on the evening of the 23rd instant in the Central Hall of the institution with Mr. N. Mac-michael, M.A., I.C.S., the Collector of the District, in the chair.

It is very gratifying to note that this institution has just now completed the 60th year of its most useful and beneficent existence in Chatrapur. It was established by late A. P. Onslow, Esq., of the Indian Civil Service, who led an example which few have followed. He bequeathed by a deed of trust property amounting to Rs. 12,400 besides school buildings, Headmaster's quarters and a small garden.

After a short prayer the Headmaster of the institution Mr. U. Satyanarayana Pantulu, B.A., L.T., read his annual report which shows that the Collector of the District is managing the institution.

and is taking keen interest in its management. The school is chiefly maintained from fees, Government grant, and the interest from the endowment of the founder of the institution.

BOMBAY.

Marvadi Vidyalaya.—Lord Willingdon opened a large building built by the Marwari community of Bombay in Sandhurst Road for their Hindi school known as Marwari Vidyalaya. It is a three-storeyed structure and contains accommodation for 500 pupils. A large company of ladies and gentlemen was invited to take part in the ceremony. After formally opening the building His Excellency congratulated the Marwari community on the great step they had taken for the education of their young men. One lesson, he said, which the present war had taught them was the need of education in this country for it was owing to the want of education that there was an inclination among the ignorant people to believe every false rumour and report that was circulated in regard to the war. He also reminded the Marwari community that it was owing to the wonderful efficiency of the Imperial fleet that they had been able to trade without hindrance and asked them in return to help the Government by using their great influence and resources to the best interests of their fellow-citizens of their country and of the Empire.

CALCUTTA.

Hindu and Hare Schools.—Under a spreading pavilion artistically decorated with flags and floral wreaths in the compound of the Hare School, the prize-distribution ceremonies of both Hindu and Hare Schools came off on the 10th instant. His Excellency Lord Carmichael presided. There was a fair attendance of distinguished gentlemen in which the following were noticed:—Maharaja Kamad Chandra Sinha of Susang, Raja Manmatha Nath Ray of Santosh, Sree Cumar Panchanan Mukherjee of Uttarpara, Kumar Manmatha Nath Mitra, Principal James of the Presidency College, the Hon'ble Mr. P. C. Lyon, Mr. Monahan, Commissioner, Presidency Division, Mr. Gourlay, Mahamahopadhyaya Dr. Saubh Chandra Vidya-bhusan and others. The gentlemen present were offered tiny bouquets of flowers by the students of both the schools and His Excellency was garlanded by them amidst loud applause while stepping on the dais. The students of the Hare School then opened the proceedings with the chorus of a welcome song.

Rai Rasamoya Mitra Bahadur, Headmaster, Hindu School, then welcomed and formally requested His Excellency to preside over the meeting.

A programme of recitations and dialogues in English was then gone through by the students. Prizes of books and medals were then given away to meritorious students for their success in examination by His Excellency, assisted by Rai Rasamoya Mitra Bahadur and Rai Ishap Chandra Ghosh

Sahab, Headmaster of the Hindu and Hare Schools respectively.

Rai-Sahab Ghosh of the Hare School made over to Mr. James, Principal, Presidency College, Government Promissory Notes for Rs. 200 for Peary Churn Memorial Prize in memory of the late great educationist Babu Peary Charan Sirkar, Headmaster of Hare School and Rs. 400 for "Bimal Chandra Memorial Prize," founded in loving memory of Rai Sahab's late grandson who had been a student of the Hare School. The former was for proficiency in English and the latter for Bengali.

His Excellency then stood up amidst high enthusiasm of the students and delivered an interesting speech when he said: I have been present at many prize-givings in India but at none have been more pleased to preside than at this joint prize-giving of the Hindu and Hare Schools.

"Your two schools are the leading institutions of their kind in Calcutta, I am told, that there is a healthy rivalry between them; and I am confident that that must help you to realize the common interests which bind you together.

Both schools are associated with the name of David Hare—a man whom every Englishman may well be proud to claim as a fellow countryman.

Both schools are among the oldest of those institutions which have brought the blessings of Western education to India.

Both schools are closely associated with the leading families of Bengal and they have both of them been the training ground of many of Bengal's greatest men.

It is a great thing to belong to a school with traditions such as these two schools have. The memory of the company of great men who have gone before you is I have no doubt a real bond drawing you together and giving strength to your determination that the traditions of your school shall never suffer through fault of yours. What the boys of 20, 30, 40 years ago have become, you too may become 20, 30 or 40 years hence. Many of you will, I have no doubt then be among the leaders of Bengali thought and action.

PUNJAB.

State Scholarship.—It is notified in the *Punjab Gazette* that a State scholarship for technical training in England or other Western countries will be awarded during 1916 to a student who is a resident of the Punjab or its dependencies. Law, medicine, forestry, veterinary science, agriculture, and civil engineering are considered to be outside the scope of the scheme, but electrical and mechanical engineering are included.

Education in the Punjab.—The number of students in the Punjab rose by 66 per cent. in the decennium 1905–1914. In the same period the pro-

portion of boys of school age actually receiving instruction rose from under 15 to over 23 per cent. and that of girls from 2.3 to 4.8 per cent. The expenditure on education from public funds rose in the same period from Rs. 31.46 lakhs to 71.24 lakhs. These figures include the expenditure from local funds. Says Sir Michael O'Dwyer:—

"The various communities in the province continue to show much public spirit and self-sacrifice in opening new or improving existing denominational institutions, chiefly for secondary education, and subject to financial considerations, Government will be found in the future, as in the past, ready and willing to give substantial assistance to any well-considered scheme.

In the four years 1911-14 the number of teachers increased from 10,856 to 14,356; the percentage of trained teachers rose from 46 to 52, and the number of graduates engaged in teaching from 493 to 676. The demand for training is now intense, and the number of candidates for admission to training institutions of all classes far exceeds the facilities available. The number of primary schools rose in the year from 4,158 to 4,552 and of teachers in them from 8,057 to 8,739.

The number of students at college rose from 3,955 in 1913-14 to 4,329 in 1914-15. It was only 1,920 in 1905-06. In the history of professional and technical institutions the three most prominent features of the year are the inauguration of a new system of instruction in the Agricultural College, the completion of the new buildings of the Veterinary College, and the unfortunate troubles at the Lahore Medical School. Apart from these outstanding features there is little of importance to record in respect of special forms of education. The interesting note by Mr. Heath, draws attention to the unsatisfactory working in which the system of industrial education at present stands; it is clear that the principles upon which industrial teaching should be based are not yet defined, the Lieutenant-Governor would be glad if the opinions of a committee he had constituted to advise on industrial and technical education could be obtained as to the precise objects at which industrial education in the province should aim.

The number of girls at school was 64,815 and the number of girls' schools increased during the year from 831 to 919. The demand for higher female education still continues strong. As in previous years much has been done by excellent private agencies to supplement the efforts of Government in spreading female education.

Female Education in the Punjab.—A meeting of the Indian ladies of the Punjab and several outstations was held at Lahore recently under the presidency of Sarala Debi Choudhrani, B.A., to consider the present condition of female education in this country, and to suggest means for improvement. The gathering was large and representative,

the two sections of Arya Samaj, Brahmo Samaj, Dev Samaj and Sanatanist section being strongly represented. Mrs. Oalel, a European lady sympathiser, was also present.

A letter from the Begum Sahiba-Zulfiyar Ali Khan of Maler Kotla, regretting inability to attend was read by the President. The first resolution pointed out that the co-operation of educated Indian ladies was the first and foremost requisite for the furtherance of female education in this country and urged the Government of India to direct the Education Department to enlist such co-operation and sympathy by associating them with all movements for the furtherance of female education as well as with the Government and Municipal institutions for girls or women, either as visitors or any other capacity. The second resolution urged that an enquiry be set on foot either by the appointment of a non-official Committee composed mostly of Indian ladies and gentlemen specially interested in the education of women, or by other suitable method for ascertaining the defects of the present system suggesting means for its improvement and extension. Pending result of such an enquiry the meeting recommended in view of the present financial difficulties to the education of boys and girls up to the age of eight in mixed schools in rural areas in lower primary stages, the appointment of a visiting committee of Indian ladies to supervise Municipal and Board schools and starting of Purdah classes for married women and grown-up girls, like those started by Bharat Sree Maha Mandal at Calcutta, Lahore and Allahabad under the control of Indian Ladies' Committee with financial assistance from Municipalities and Boards. The meeting also called upon the Government of India to organise the education of girls as laid down in the Education Resolution of February 1913 and urged the starting of girls' model high schools, providing liberal scholarships and establishment of Technical schools under Ladies' Committee, where poor women and widows may learn useful arts and crafts. The meeting also authorised its President to draw up and submit a memorial to the Governor-General-in-Council embodying these suggestions and recommendations.

UNITED PROVINCES.

The Educational Conference.—The United Provinces Educational Conference was held on the 18th instant at Lucknow in 'Kaisarbagh Baradari' under the presidentship of the Hon. Pandit Madan Mohan Malaviya. It was well attended, among those present being many prominent members of the Indian community of Lucknow including the Raja of Mahmudabad, Raja Rampal Singh and Thakur Suraj Baksh Singh and almost every Mahomedan gentleman of note, besides all the prominent Hindu public men.

Several interesting papers were laid before the Conference. The most valuable among them was a historical summary of educational effort in these

provinces under British rule, contributed by Mr. B. Sanjiva Rao, the Principal of the Kayastha Pathahala College. It runs to 71 pages of print and embodies the most material facts about the progress and vicissitudes of elementary, secondary and collegiate education and of the education of women during the last hundred years and more. Other papers were contributed by Mr. William Jesse, the Principal of Meerut College, who discussed the present position in these provinces; by Prof. Brown of Canning College on the hostel system in its relation to higher education in India; by Dr. D. R. Ranjit Singh on the medical inspection of students; by Mr. M. C. Roy on the teaching of English in Anglo-Vernacular schools, and by Mr. Hafiz of the Cawnpore Theosophical School on primary education. The papers of Pandit Iqbal Narain Guru on secondary and Mr. P. K. Telang on collegiate education were not ready in time to be printed and distributed among the members of the Conference, but will be embodied in the report of its proceedings.

The Indian Science Congress.—The 3rd Indian Science Congress, opened on the 13th instant in the Senate Hall of the Medical College, Lucknow. There was a large audience of scientists from all parts of India. Several ladies were present.

His Honour the Lieutenant-Governor in the opening Address said:—

Sir Sydney Barrard, Ladies and Gentlemen:

It is my pleasant duty to welcome the Science Congress to Lucknow, to offer you such hospitality as may lie in our power and to do anything and everything that we, the citizens of Lucknow, can accomplish to help you to enjoy your stay in our city. That is the only message that I have for the Congress this morning. I should not on such an occasion presume to address you on any subject, in which the Congress is interested, even if I had the capacity to do so, which I have not, for to those of us who like myself date from the old bad days of education when a Greek artist was of greater value than all the marvels of nature it is not given to do more than penetrate the outer courts of tabernacle, to do more than to gaze with admiration and envy of ignorance upon the worshippers within. But not even our most profound ignorance can blind any of us to the great work which the scientific research is doing and has done for this country. There is no one of us, who is in any way associated with the work of the Government in India, who fails to recognize the supreme importance of adequate scientific advice and assistance in the problems which faces him day by day. We sometimes may ask impossibilities of science. Many of you perhaps remember how a bumptious cross examiner once tackled Lord Kelvin upon a subject in which he was the greatest master in the world, and perhaps you will remember his reply—"My dear Sir," he said, "You might as well ask me the distance between London and Wednesday week." That is the type, I fear of the conundrums which

we occasionally press upon our scientific advisers and I can only ask them to treat such foolish questionings as evidence of our pathetic belief in their wisdom, for we do, ladies and gentlemen, we do want your advice in every problem that comes before us. We want it most insistently on all the great questions of industrial advance, which are of high importance to India at this particular juncture of her history. We want your advice and help in the questions of public health, in dealing with disease and in ameliorating the physical condition of the people. We want your psychology in what is possibly the most important and the greatest of all our problems, the problem of education, and we want your help very particularly in the task of increasing the agricultural productivity of our land. In every one of these problems we have to thank science for the timely help that it has already given us. It would probably be ungenerous to them if I attempted to express the indebtedness of this province to some of my own colleagues such as Major Sprawson in his investigations in tubercular disease, and Mr. Leake in his enquiries into the cotton plant. I may, however, be permitted to express the indebtedness which we owe in this province to one institution that lies outside our borders the great Research Institute at Pusa worthily represented here to-day, which has laid its indelible mark of beneficence upon the welfare of our rural millions, and now, ladies and gentlemen, I will not stand for another moment between you and the joys of the presidential address. I beg you once again respectfully to accept our greetings in Lucknow, our gratitude, that you have selected it as your meeting place this year, and our hope that when your work is over you will carry away some pleasant recollection of our fair city.

Colonel Sir Sydney Barrard then delivered his presidential address. Afterwards the Congress went into two sections, Mr. Howard presiding over the Agriculture and Applied Chemistry, and Professor Woodland over Zoology, section.

Mr. B. C. Burt in a paper on "Re-alignment of Agricultural Holdings" suggested the possibility of acquiring a few villages in different parts of the country and carrying out the necessary alterations and re-letting the new holdings to the original tenants.

Mr. James Hornell, Government Marine Biologist, Madras, gave an interesting account of the varieties of the genus *Turbinella*, one of the dominant molluscs of Indian seas.

Dr. E. H. Hankin of Agra delivered a lecture on "The evolution of flying animals."

Dr. Bose delivered his lecture on "Light visible and invisible." Mr. S. M. Jacob in a paper on the correlation between rainfall and crops gave examples of certain co-relations. Several papers were taken as read owing to want of time. It was announced that the session of the Congress will be held at Bangalore next year.

INDORE.

Compulsory education in Indore.—Following the good example set by their Highnesses the Gaekwar of Baroda and the Maharaja of Mysore, His Highness the Maharaja Holkar of Indore has made elementary education compulsory throughout his State and thus has earned the gratitude of his people. His Highness has made adequate provision for building and maintaining additional schools for the fulfilment of his object, and as soon as these schools are ready this order will take effect.

TRAVANCORE.

Educational questions.—As the result of the representations made at the last Sri Mulam Popular Assembly by several members, the Travancore Durbar have recently given their decision in many important educational questions in the State. Some of them are the following:—

In regard to the introduction of compulsory elementary education the Durbar have pointed out that the voluntary system has worked with satisfactory results, and that the need for compulsion arises only when the voluntary principle has failed, the progress of elementary education in the State compares favourably with what has been achieved elsewhere under compulsion.

With a view to lessen the heavy expenditure on school buildings a cheap plan has been sanctioned for such buildings in the State. Government are against the acceptance of the suggestion that the School-Leaving Certificate without the Public Service endorsement should be made retrospective. They have decided that it is not possible to reduce the staff in H. H. the Maharajah's College and to train all elementary school teachers in the Training College for want of accommodation.

Government do not propose to open more departmental secondary schools, but they will encourage the starting of secondary schools by private agencies, provided they satisfy the conditions for recognition.

The opening of Industrial schools is engaging the earnest attention of the Government.

In view of the present limited accommodation, Government have declared that it is not possible to throw open the Caste Hindu hostel at Trivandram to all students.

INDIA (GENERAL).

Agricultural Education in India.—A Press communique issued in the Department of Revenue and Agriculture states:—The question of agricultural education has for some time been under the consideration of the Government of India and in order to obtain the advice of experienced officers of all departments concerned as well as of non-official gentlemen who have taken a special interest in the subject it has been decided to convene a small

informal Conference at Pusa on the 4th of February, 1916 under the presidency of the Hon'ble Mr. C. H. A. Hill to discuss the subject in all its bearings. The following gentlemen will probably attend the Conference:—The Hon'ble Mr. C. H. A. Hill, President, Mr. B. Conventry, Agricultural Adviser to the Government of India, Mr. G. F. Keatinge, Director of Agriculture, Bombay, Mr. J. MacKenna, Deputy Commissioner, Mysore, Mr. A. G. Dobbs, Deputy Director of Agriculture, Bihar and Orissa, Mr. R. W. E. C. Wood, Principal, Agricultural College, Coimbatore, Madras, Mr. D. Clouston, Deputy Director of Agriculture, Central Provinces, Mr. G. Clarke, Agricultural Chemist, United Provinces, Mr. J. H. Barnes, Agricultural Chemist and Principal, Lyallpur College, Punjab, the Hon'ble Mr. C. F. De La Fosse, Director of Public Instruction, United Provinces, Mr. S. H. Freemantle, C.I.E., Collector of Allahabad, the Hon'ble Mr. J. G. Cumming, Bengal, the Hon'ble Mr. H. Sharp, Educational Adviser with the Government of India, the Hon'ble Mr. Lalubhai Samaldas, Bombay, Rai Jawala Prasad Bahadur, Government Pleader, Arrah.

Foreign.

Indian Students in England.—Mr. C. E. Mallett's report on Indian students has been published. It shows that the whole field of education has been overshadowed by the war from August 1914 onwards. The great majority of students at the British educational centres responded steadily to the call for men. The University students, Bar students, Medical students and Engineering students volunteered on every side for service and Indian students were as willing as any to take their part in the burdens of the war. The normal work of the British educational centres was inevitably displaced by the circumstances of the year. Many Indian students returned to India and the flow of new-comers at some centres sensibly decreased. The returns from the Inns of Court in London showed that the total numbers of Indian students on the books of the Inns on the 30th June 1915 were considerably less than the year before, and those numbers necessarily included some, no longer residents in this country. The members at Lincoln's Inn had fallen from 173 to 145, those at the Middle Temple from 288 to 151 and those at Gray's Inn from 98 to 66. On the other hand the number of Indian students at the Inner Temple had risen from 50 to 52. Questions relating to the training of Indian advocates in Great Britain and to the issue of regulations on that subject were necessarily suspended.

The Conference which the Lord Chancellor had proposed to hold with the members of the Indian High Courts during the autumn of 1914 was for the time postponed, but it is hoped that the consideration of these questions may be resumed as soon as circumstances allow. There seems still to be room for improvement in the selection of technical scholars. If these scholars on their return from England are to be employed and to

have successful careers it is important not only that they should be trained with regard to the end in view but that before leaving India they should receive such preliminary education as may enable them to use their time in England well. If scholars with no adequate training in physics, chemistry or mathematics are sent here for studies, which involve a thorough grounding in those subjects, they will be compelled on arriving in Great Britain to spend valuable time in learning what they ought to have learned before they came. In choosing men for these scholarships, there seems to be two methods which give good results. One method is to select students already well-educated in India to give them at the British Universities and in British workshops best theoretical and technical training to be had and to try to fit them for responsible posts for the officer class in industry on their return. The other method is to select men of less general education, trained as working mechanics already and content to aim at being good mechanics and foremen on their return and to send them to England not to join the University or to work for diplomas and degrees but to enter workshops and to become finished and capable mechanics. These men belonging to both of these classes have been sent from India as scholars and there is room in the country for both, but the scholars who come

over for the higher type of training seem at present to be few in number. They need very careful selection and should consist only of the best educated men. If others are sent with less education they should be trained in a different way. Their courses might well be shortened and they should be clearly told when given the scholarships that they are not selected to join Universities or to get degrees but to secure practical training in British workshops with a view to employment as skilled mechanics on their return. Difficulty has sometimes been caused by the fact that scholars fitted only for the second type of training have come over bent on trying for the first. The result is inevitable disappointment, a serious loss of time in this country and an unsatisfactory result in the end. The whole object of the system of technical scholarships would be defeated if the holders were to return to India insufficiently equipped on the one hand for leading and responsible positions in industry and on the other hand too conscious of academical attainments to turn to and work as foremen and mechanics. At present owing to the uncertain methods of selection there is some danger of our technical scholars falling between the two lots and failing to secure satisfactory employment. The point is understood to be engaging the attention of the Government of India now.

SOCIAL LEGISLATION UNDER HINDU GOVERNMENTS

BY

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The charge has been frequently made by Convocation orators and others that English education in India has been barren of results so far as research work is concerned and those people who neglect any opportunity to decry Indians and Indian aspirations are fond of quoting this fact to point the moral that there is something innate in the Indian character which renders Indians incapable of conducting research in any department of knowledge and the argument has been frequently pressed by sundry people to support the perverse view that India is being over-educated. Now there is no denying the facts that the men that conduct original work in India are ridiculously few, that the majority of these are members of the scientific departments of Government, viz., the Archaeological, the Medical, the Geological and the Agricultural, and that in the Educational Department there are few Indians and no Europeans who have shown capacity or inclination to attempt to extend the bounds of human knowledge. Last month we pointed out that the real cause of this barrenness of English education in India is this, that the education is carried on by English Professors who not only do not carry on research of any kind but, as is evidenced by the article in *Indian Education* referred to by us, think that it is not their duty to create an atmosphere of original work in their colleges and to stimulate the search for knowledge among their

pupils. That article and the pronouncement it elicited in the *Madras Times* emphasise that the College Professor in India has to serve but the function of an intellectual Post Office; it is his business to transmit knowledge from books to pupils and no more. If such are the ideals of teachers, need we wonder that the ideal of the pupils is to commit to memory the greatest possible maximum of book knowledge, the effective display of such knowledge at examinations and the steady shedding of the intellectual acquisitions during the course of official or professional life that succeeds the college career of most of our young men? We do not care to discuss whether the average professor is incapable of or indifferent to original research in any field of knowledge; in Indian colleges he is a mere lecturer and no more; so his students are mere learners and no more. Not that the college Professor has no time for research work; Professors in colleges do about ten hours lecturing work in a week and to each Professor is attached two or three men variously called lecturers, tutors, etc., who do all the wearisome work of reading exercise-books, valuing college examination answer-books, etc. Hence the Professors if they are so minded or capable have got ample leisure to carry on research work in the particular field of knowledge in which they are specialists. Seeing they have so much time, how is it that Professors in India neglect original research unlike the Professors in the advanced countries of Europe or America?

Some, at least, of our Professors are quite capable of work. A few of them, and more especially the very few who have become Fellows of the Royal Society won fame in Europe as discoverers of scientific truth before they entered the Indian Educational Service. But the atmosphere of this service seems to choke all desire for original work. In turn, any glimmering of aspiration on the part of college students is killed by the absence of the stimulus in that direction in the Indian Universities.

Another cause why half-a-century of University education in India has led to no stimulation of original work in the minds of the *alumni* of our colleges is to be sought for in the fact that higher education in India is organized primarily not for the purpose of the spread of western knowledge, of instruction in western science and scientific thought but of facility in the use of the English language. College work is so arranged that the major portion of the time of the student is used up for the acquisition of the English language. The development of the memory for words and not of the desire for the search for or acquisition of knowledge is the aim of University education in India. In old times before the rise of our Universities, the object of teaching was the training of the Sanskrit Pandit, now the English Pandit

has taken the place of the Sanskrit Pandit; now, as then, no attention worth the name is paid to the development of scientific thought or the training of the scientific worker in our colleges. Probably one reason of this unhealthy state of affairs is the custom of having English as the medium of instruction in our schools and colleges. We do not at present intend to discuss the vexed question of the use of the vernaculars as the linguistic medium of teaching in schools and colleges; but merely desire to emphasize the fact that the non-use of the vernaculars in our science classes not only prevents western knowledge from filtering down to the people of India but also cramps the intellect of our educated men so much as to unfit them for carrying on original work in any department of knowledge. To conclude the rarity of research work in our Universities is due first to the fact that our Professors are not, either by temperament or by the special circumstances of their position in this country, research-workers, secondly to the fact that education is so organized in India that the principal study is that of language, as in mediæval institutions and memory and talkativeness pays better in examinations than sound intellectual works and lastly that all education has to be conducted in an idiom foreign to the cast of thought inherited by the student.

THE ALL-INDIA MUHAMMADAN EDUCATIONAL CONFERENCE.

Presidential Address delivered by the Hon'ble Mr Justice Abdur Rahim of Madras at the Twenty-ninth Session of the All-India Muhammadan Educational Conference, held at Poona, Dec. 1915.

GENTLEMEN :

PRELIMINARY.

I assure you that I feel greatly honoured that you should have asked me to take the chair on this occasion. The responsibilities attached to the office of President of the All-India Muhammadan Educational Conference have always been great and are specially onerous at the present session. We are expected to help the community in arriving at a decision on the difficult question of the Muslim University. I frankly confess to you that when a provisional offer was made to me by my friend Sahibzada Aftab Ahmed Khan on behalf of the Central Standing Committee, I accepted it, though not with a light heart, yet without fully realising at the time the difficulties of the task to which I was called to address myself. I can hardly remember another occasion when our community has been in such an excited mood. Nor do I know of another communal Indian problem which evoked a livelier interest than the one which is now occupying the most prominent place in your minds. I do not pretend to any special fitness to guide your deliberations at the present juncture, but since you have been pleased to repose confidence in me I will beg of you to accept my assurance that whatever I may say to you is the result of very careful, anxious and wholly dispassionate consideration. Apart from the intrinsic importance of the question I feel much concerned at the volume of feeling which it has created in our midst and which only those who have inside knowledge of the community can adequately realise. The Muhammadans are not easily moved in any matter. They know still

less how to give effective public expression to their thoughts and emotions, at least in the mode which is now recognized as the only legitimate method of public expression. In fact, they give to the outsiders an impression of stolid indifference even in matters of great moment which may in fact be moving and shaking their inmost being. But conscious as I am of the full significance of the Muslim University question, it is my duty to tell you that there are other educational problems of vital concern to the country and the community deserving of your most careful and vigilant attention in the interests of the future growth of the people of India generally, including the Muhammadans.

Another reason why I have been labouring under a sense of especial responsibility in presiding over the deliberations of this Conference is, I need hardly tell you, the troublous nature of the times. These are days laden with anxiety both to the Government and to us. It behoves us not to depart in any degree from that dignity and calmness of deportment which is a characteristic of Muslim gatherings. The people of this country, the Muhammadans as well as the Hindus, have loyally stood by the side of the British people and afforded in an unstinted measure their help in men and money with a delicacy of feeling and forethought which has amazed the world. It will be superfluous hypocrisy to hide the fact that this devastating war has searched the innermost recesses of Muhammadan sentiment. I cannot help expressing my gratification at the wonderful self-restraint and the capacity to think and act soberly in a moment of crisis of which our community has given such signal proofs. They realise, more perhaps than ever, that in India itself they will be able, jointly with their Hindu brethren, to work out their common destiny and

ultimately reach the natural goal of a nation which has a history so renowned and is so gifted as the people of India. This, we fully believe, we shall be able to achieve within the zone of the British Empire. Whatever else may be said about the Indians as a people, their most implacable critics will not charge them with callousness. We all hope and pray that not only will the cause of justice and civilization triumph but that the result of this war will induce the European nations to reconsider the ideal of life which they have hitherto been pursuing. Otherwise, it will inevitably be followed by other wars waged on an even more destructive scale. The former wars were mostly actuated by the ambition and greed of individuals; but that has now been replaced by the avarice and jealousy of nations whether it be described as a craving for space in the sun, a process of evolution or as a necessity for preserving the balance of power. The sense of humanity seems to be almost entirely drowned by rancorous hatred begotten of misconceived nationalism. I am one of those who firmly believe that, great as have been the achievements of the human race, it is destined for still greater achievements. It will, I am sure, survive the present cataclysm, and this war will mark but another stage in human progress, if it serves to remove the artificial barriers that divide one group of humanity from another, people of one tract from that of the neighbouring tract, the East from the West and the white from the brown, the yellow and the black.

You are familiar with the history of this Conference and you know that when it was first founded, the principal aim of the great benefactor of the community, Sir Syed Ahmed Khan, was to fight and subdue the unreasoned hostility which then prevailed towards modern education among Muslims throughout India. He and his zealous band of co-adjutors more than one of whom were men gifted with eminent genius and rare powers of action have gloriously accomplish-

ed their great task. That chapter, therefore, in the history of the Conference is closed, and the community can well congratulate itself that it has closed with such complete success. Alas! Gentlemen, those to whom the achievement was entirely due have almost all passed away from our midst, with one notable exception. I allude of course to the veteran undaunted champion of Muhammadan cause, Mushtaq Husain Nawab Viqar-ul-mulk. May he live on with God's blessing in health, peace and comfort. Among those whose permanent absence from our midst we mourn to-day, I may be allowed especially to mention the name of Altaf Husain Hali, the Patriot-Poet, whose poems have done so much to awaken in the breasts of Indian Muhammadans a true sense of their position and a resolve to retrieve at least something of what has been lost. The community has also undoubtedly become the poorer by the death of Sir Khaja Salimullah Bahadur of Dacca, whose memory will always be honoured and cherished especially in the East Bengal for the invaluable services which he rendered to the Muhammadans of those parts not merely in the matter of education but in many other directions. Death has also removed Ghulam-us-Saghalain from whose devotion to the cause of Muhammadan education and social reform and his conspicuous literary talents the community formed great expectations, and Major Syed Hasain Bilgrami, who had so entirely dedicated himself to Aligarh and from whom the community expected much useful work. Let us devoutly pray to God that their souls may rest in eternal bliss and that their places in the community be filled by worthy successors.

Naturally, the most far reaching questions connected with education are of a general nature affecting not only the Muhammadans but also other Indian communities. Undoubtedly there are also special problems affecting our community. It is the duty of this Conference to deal with questions of both classes and nothing

would be a more fatal mistake than to confine ourselves solely or mainly to those aspects of educational questions that more, especially concern the Muhammadans. What I propose to do is to draw attention to some of the more important subjects connected with education both of a general character and those in which the community is particularly interested.

GOVERNMENT AND EDUCATION.

Gentlemen, at one time much controversy existed on the respective duties of the Government and the people with reference to education. In my opinion this is not a matter to be dealt with in the abstract. Education is a fundamental necessity of a community in all its grades. It must be met by whichever agency or agencies are capable of meeting it. In some countries, the people are in a favourable position to organise and look after their children's education, in some directions perhaps even better than the Government. In other countries, such as India, where the Government commands larger resources and a more effective organization than what can be supplied by private efforts, the burden of educating the people has primarily to be borne by Government. I do not wish for a moment to suggest that the people themselves or such of them as are in a position to undertake this civic duty are at liberty to consider themselves relieved of the obligation. All that I mean is that to the extent the people are unable to help themselves in this respect the Government is expected to come in and supply whatever is needed. It is primarily the duty of the parents to educate their children; but parents who are themselves illiterate or poor cannot be expected to fulfil that obligation. The percentage of literates in India according to the last Census is 5.9. Even among the literates only those can be expected, generally speaking, to realise their responsibility in the matter of spreading education in the country, who have attained the higher stage of education. The number of these men

can only be described as insignificant in relation to the vastness and difficulties of the work to be accomplished. As regards the material resources of the Indian parents, I believe that in the case of fully 75 per cent. of them, if not more, all that they possess do not exceed the limits of barest sustenance. Then the difficulties of private organization in the circumstances of this country are but too well-known. Hence the most thoughtful men among the people have found themselves driven to look principally to the Government to undertake the national organization of education and I believe the Government has been realising more and more vividly every day the responsibilities of the situation. To whichever field of education we turn, the tract which lies waste and untouched is immeasurably vast in comparison to what has been yet taken in hand. And to my mind it would be a barren discussion to consider the relative degree of importance which should be assigned to the different departments of education. The aim in view should be to develop the various energies and talents of the people to their fullest measure; and a little reflection will tell us that the object cannot be achieved, unless education in all its different facilities and forms is vigorously pushed on—elementary, secondary and higher education, scientific, literary and artistic, professional and industrial, technical and commercial education of the masses—of boys as well as of girls. A fairly good beginning has been made in some branches such as the higher literary education, and latterly also in some departments of physical science; in others what has been achieved so far is extremely unsatisfactory, for instance, education of masses and of women generally; while the domain of industrial, technical and commercial education remains practically unexplored. I will briefly illustrate what I meant by saying that one branch of education is closely connected with the others. For instance, if the general body of

the people be uneducated, the highest interests of literature will necessarily suffer, as it cannot grow to its proper dimensions in the absence of a large reading public. Further, unless there be a wide field for recruiting the men of talent, you can never be sure that the country or the world has had the full benefit of the intellectual resources of the community. Similarly, unless higher scientific education is placed on a sound and comprehensive basis, the economic growth of India must remain backward and poor. In any proper scheme for industrial, technical and commercial education the higher guidance must be received from the men of science. And not only scientific but professional, technical and industrial education must be established broadcast in the land before we may expect to bring about that economic prosperity which is indispensable to the highest form of efficient national education and training. Then unless the mothers of future generation are themselves educated, we should never hope to spread education and enlightenment in the country on a comprehensive basis.

EDUCATION OF THE MASSES.

I doubt if there is another country in the world where the educational status of the people is so low as in India. That of 255 millions only 15 millions can read and write is a phenomenon which cannot be paralleled elsewhere. I am sure that the Government is not pleased with the situation any more than you and I. How could any one be content or happy in such surroundings? At every turn you are shocked by sights and sounds of misery, moral, intellectual and physical, directly traceable to the illiterate condition of the people. Perhaps their most appalling ignorance and superstition is most vividly illustrated in the stories of crime and folly which are told every day in hundreds of Courts of Justice. You remember that the late Mr. Gokhale introduced a private Bill in the Imperial Legislative

Council for instituting free and compulsory education; but unfortunately it came to nothing. I am afraid public opinion, which at the time was not very well instructed, did not express itself with sufficient clearness and definiteness. Since then, however, opinion has in this connection grown with remarkable rapidity so that at the present day there is an universal demand for free and compulsory education. As practical men we do not expect that such a measure can be applied all at once throughout India. But there can be now no difficulty whatever in accepting the principle and enforcing it in selected areas. A commencement might well be made by empowering the Municipalities in larger cities to levy an educational cess for establishing primary education on a free and compulsory basis. I have no doubt that such a measure will be welcomed by all classes of the people and receive their hearty co-operation. While this experiment is carried on in larger cities, the District Municipalities and the Boards should receive ample grants to maintain Primary schools in sufficient numbers to meet the wants of every town and village. Here I take the opportunity to invite the especial attention of the Government and the Legislative Council of Bombay to the extreme expediency of placing upon the statute book the measure known as the Sindh Paisa Cess Bill, which was introduced as far back as 1907 for promoting popular education among the Muhammadans of Sindh, whose need in this connection is particularly pronounced. The Muhammadan representatives of this Presidency are, I believe, all agreed as to the need for such a measure and the general consensus of Muhammadan opinion is now strong in its support. It will be a very gracious and politic act on the part of His Excellency Lord Willingdon and his Council to fulfil the desire of the people in this respect.

I may observe that I have been much struck by the fact that men belonging to the poorer classes are as keen to see that their sons receive

a certain amount of education as those belonging to the upper crusts of society. I believe that in most cases there will be no need for using the power of compulsion; the reservation of such power will be mostly useful in keeping awake in illiterate parents a proper sense of their duty. At the same time, if a sufficient number of schools be provided at present, it will be time enough afterwards to consider how far the doctrine of compulsion may or may not have to be legalised. The statistical figures show the number of boys attending school as 17.7 per cent. of the number of boys of school-going age. Of these the proportion of Muhammadan boys is 17.4 per cent. In this department the Muhammadan community is no worse off than the others. The condition of all, however, is equally deplorable.

One difficult question which especially affects the Muhammadans in this department of education relates to language. With a few exceptions, it is the desire of Muhammadans all over India that the vehicle of primary education should be Urdu which is not only looked upon as the national language, but is practically the only vernacular through which it is possible to impart instruction in the tenets of their religion or in those moral and civic duties which among the Muhammadans are best enforced by the sanction of religion. Besides being so largely derived from Arabic and Persian, the Urdu language carries with it the dearest and the most cherished association to every Muhammadan mind. At the same time an important fact that ought to be recognized is, that in several parts of the country Urdu is not the mother-tongue of the Muhammadan inhabitants and in many places the daily transactions of life are carried on in a language other than Urdu. I feel that it may not be possible to lay down any hard and fast rule on this subject and it had best be left to the option of the local community in each district and village. But wherever there is a demand for Urdu schools

it should be met, and in other Primary schools there should be facilities for giving instruction in the fundamentals of Islam to Muhammadan boys.

Another practical question, but of a general character, that calls for consideration is the combination of training in some useful industry with instruction in the three R's. Unless that is done, it will be difficult to expect the boys of the peasant and the labouring classes to stay on in the school long enough to learn anything useful. Then again we have to see to it, that the boys keep up in after life what they have learnt; too many of them now relapse into illiteracy. As a remedy, the continuation classes deserve proper encouragement. Further, if the benefits of popular instruction are to be made at all enduring, village libraries where newspapers, periodicals and simple instructive literature will be available have to be organised. Then if we could organise a service of popular preachers and lecturers with men who daily pass out of the numerous Madrasas, we should have done much indeed towards uplifting the Muhammadan masses.

MUHAMMADAN MISSIONARY EFFORT.

It is a fact to be deeply deplored that for some time Missionary effort has seriously declined in the community. I am not now alluding so much to the question of converting men of other faiths to Islam, for which I may mention in passing there is extensive scope in this country, as to the general educational work which the Muhammadan Missionaries used to carry on. You seldom hear now-a-days of any great preacher going out into the country and inculcating those principles of faith which in the olden days made Islam such a potent factor of civilization. With the disappearance of these teachers there has been a marked decline in the popular enthusiasm for Islam and Islamic code of conduct. The subject is worthy of your serious consideration; for, remember that it is through the *Ulamas* that we can best reach the masses.

SECONDARY EDUCATION.

When we reach the state of secondary education a serious decline is noticeable in the position of the Muhammadans. This is the gravest symptom in the educational condition of the community and you cannot too promptly set about finding out the causes and provide the appropriate remedies. The real momentum of progress in a community is to be measured at the stage of its secondary education; for it is at that stage alone, and not before, that any real foundation is laid for progressive knowledge and it is through the portals of the Secondary and High schools that the access to the Universities is obtained. In all directions complaints are heard of the insufficiency of such schools. The Government itself maintains hardly any; they are left to the Municipalities, District Boards and private effort. Of the total Secondary schools, higher and lower, 228 are maintained by Municipalities, 992 by Local Boards and 1,014 by private bodies. Of these, the Secondary schools maintained by or for the Muhammadans are very insignificant in number, having in regard the needs of the community. While every effort should be made to increase that number I must, frankly tell you that, if left to individual effort alone, our community, impoverished as it is, will not be able at all adequately to supply the want. We have largely to depend on what the local Municipalities and the District Boards and in the last resort the Government can provide in this direction. In the peculiar circumstances of certain localities it will be found desirable or necessary to have separate secondary institutions. For the rest we must see that no boy is turned away from the Municipal and Board schools for want of accommodation or of the necessary pecuniary help in the case of poor and deserving students. To mention the case of one Presidency, in Bombay there is a specific demand that at least for every two divisions there should be an

Anglo-Urdu High School and that the Anglo-Urdu section of the Poona Camp School be raised to the status of a High School. In many Secondary schools in certain Presidencies there are no Persian and Urdu teachers and that in itself is enough to deter Muhammadan boys. It may also be necessary in some places to insist on a rule that a certain percentage of seats should be reserved for Muhammadan students. I do not mean that there should be any rule which will have the effect of excluding boys of other communities; but what it will practically come to is that there must be a sufficient number of schools to provide for all. In this connection you have to consider carefully the Grant-in-Aid Code system in vogue in the different Presidencies and see that it is worked on a liberal scale and in a generous spirit so that every private effort to advance secondary education is adequately responded to by the Government.

The status of the community in the matter of secondary education is so depressed that I am convinced that nothing but special remedies will ameliorate the position. The Government, I believe, is conscious that measures are needed for advancing secondary education in the Muhammadan community. But it is a matter which has to be constantly watched and for this purpose a special inspecting agency has become necessary. Some steps have been taken in this direction in Bengal and measures to that effect have been formulated in the United Provinces. It is time that in every Province an adequate Muhammadan inspecting staff should be appointed and also a special Assistant to the Director of Public Instruction whose principal duty would be to collect and co-ordinate facts relative to Muhammadan education and to advise his chief on the subject. There are some people prone to be influenced by catch-phrases and likely to cry out against the proposal as being an attempt to secure favoured treatment. It is no such thing that we

are asking for. The education of any portion of a community, if it is a favour at all, is a boon to the entire people, and I cannot think of anything more mischievous or foolish than to cry down measures which may be found necessary to advance education among such portions of the nation as may have lagged behind.

Connected with the subject of secondary education is the question of introducing English as a secondary language in the Madrasas. We will have to consider whether it will not be to the benefit of the Arabic students, the majority of whom have to earn their living in a land in which English is fast displacing other languages in all business transactions. After all, those who go through the higher Arabic courses should not find it difficult to acquire a certain amount of familiarity with another language like English which is in no way comparable to Arabic in difficulty.

HIGHER EDUCATION IN THE VERNACULARS.

This brings me to a topic which has been exercising the minds of many thoughtful men in connection with Indian educational problems, namely, whether higher education should always be confined to the medium of the English language or should it not also be imparted through the medium of certain vernaculars. The other day Sir Rabiindranath Tagore, the poet, of whom all the communities in India are justly proud, made a suggestion that it should be possible for an University like that of Calcutta to institute lectures in the vernacular on at least some of the subjects of education. The suggestion coming from such a quarter is deserving of the most careful consideration and is one which the society for the advancement of Urdu may well take up. Until our own languages receive some recognition as the medium of higher instruction, the development of advanced branches of knowledge in the country must necessarily be slow. Urdu which is the vernacular of the Muhammadans has within recent times been expanding at a rapid

pace although I must confess that there has grown up a tendency to introduce foreign words and expressions on too easy terms without even an attempt to put them in a garb suitable to the genius of the language. And I may incidentally throw out a suggestion that we should more largely avail ourselves of the rules for Arabisation than which, I know of no better means of enriching and amplifying our language.

STATE OF HIGHER EDUCATION AMONG MUHAMMADANS.

As Muhammadan boys are snipped off at the secondary stage the inevitable result is that the state of higher education among the Muhammadans is extremely deplorable. It is true that the number of Muhammadan graduates within the last 9 years has gone up about 80 per cent. But nevertheless the number is still so insignificant that it can hardly be said to be an effective factor in the progress of the community. What disastrous effect the paucity of Muhammadan graduates has on the general educational and economic progress of the community can be judged from a few simple facts. You cannot get trained Muhammadan teachers, is the cry practically all over the country. If you search the Medical Colleges you will hardly find a dozen Muhammadan students and in the Engineering Colleges you will not find even half a dozen. Similarly in the Forestry School at Dehra Dun, the Agricultural Institutes at Pusa, Sambhur, Lyallpur, Coimbatore, Nagpur, and Poona, in the geological classes and in the veterinary institutions hardly any Muhammadan student is to be found. University education is a condition for admission to the higher courses of training in these institutions, at least as far as the Indians are concerned. And it is due both to the limited number of Muhammadan graduates and their lack of means to undergo an expensive course of scientific and technical training, that you find the Muhamma,

dans almost entirely absent from some of the most lucrative as well as useful professions and public services. But perhaps the most deplorable feature is the lack of competent and trained teachers without whom neither primary nor secondary education can be advanced as rapidly as we desire. The proposal for establishing training schools for Muhammadan teachers supported in the beginning with adequate scholarships is one worthy of your best consideration.

UNIVERSITY EDUCATION.

No subject connected with education in this country has been the theme of so much controversy as University education. I admit that it is a question which lends itself to considerable difference of opinion. But I take for granted certain propositions. First of all, that it is the established policy of the Government to encourage and help forward higher education in the country. That policy received the most authoritative pronouncement from the lips of His Majesty the King-Emperor at the Durbar; and if I were to select from among the pronouncements of His Excellency the Viceroy, those that have tended most to make him so universally popular throughout India, I would mention the speeches in which he announced a definitely forward move in the Department of Education. We know at the same time that in this country it is one thing for the King, the Parliament, the Viceroy and the Governors to lay down liberal schemes of reform and quite another question when or how they are to be carried into effect by those engaged in the practical administration. In India, partly owing to individual idiosyncrasies for which there seems to be an unlimited scope and partly because of the ever shifting official personnel, many a measure for the good of the people elaborated with considerable care, forethought and labour, and I need hardly add at an enormous expense to the public, are so often delayed in execution that they lose half

their value and are not seldom shelved. Among Lawyers the saying is current that the troubles of a litigant begin when he has obtained a decree and seeks to execute it. Similarly, it would seem that the troubles of the Indian public commence when any large measure of reform after it has been formulated is brought to the stage when it has to be carried out.

DEMAND FOR MORE UNIVERSITIES AND COLLEGES.

Several proposals for establishing additional Universities at Dacca, Bankipore and Nagpur have been published. What has happened to them? Lord Hardinge has repeatedly announced that there is need for many more Universities in India and if I may respectfully say so, never was a truer word said. We not only want more Universities but also many more colleges and schools. Otherwise additional Universities will lose half their significance. The public will also welcome Universities of a teaching and residential type in addition to those now existing. There is room for them all. We must, however, carefully guard ourselves against the misleading criticisms of those who seldom miss an opportunity to decry Indian institutions. Our present Universities have done very great work and I fully believe that they will last long and continue to spread enlightenment and learning in this country. They are now undertaking other duties besides examination, such as teaching, which is all to the good. There is in us all a proneness, apparently deeply ingrained in human nature, to institute comparison between things similar in kind and character, and consciously or unconsciously, to transfer our interests and affection to the one which appears to us to be the most perfect. This is perhaps only a manifestation of our instinct of progress, but it often has the tendency to lead some of us to ignore or to neglect measures which though not perfect have yet a useful purpose to serve. Others make the fullest use of even the imperfect materials which are at hand,

without releasing their hold on that which is nearer to the ideal. This is to my mind practical good sense while the other is mere sentimentalism. I am prepared to suppose that Universities of the type of Oxford and Cambridge are in fact superior to the Calcutta, Bombay, Allahabad and Madras Universities; but no residential and teaching University has yet been established by the Government and the burden of higher education rests on the same old shoulders.

The demand for University education has in the meantime been growing at a stupendous rate, but simultaneously a host of zealous educational reformers has sprung up, whose measures, far from attempting to meet the growing demand, seem to be mainly directed towards reducing the sphere of higher education in the name of efficiency. Up to a certain point I am a believer in efficiency. But you can make too much of it. You cannot safely drive human institutions with the efficiency of machines without sometimes crushing the most valuable human sentiments and aspirations. I believe in no shibboleth and I am not in favour of making an exception in the case of efficiency, the deity which is professedly worshipped so much in this country. You cannot too vigilantly watch the effect, especially on the Muhammadan community, of the regulations which are being daily enacted to limit on the one hand the number of admissions to the existing colleges and on the other hand to impose more rigorous conditions of affiliation on new institutions seeking recognition.

INSUFFICIENCY OF ACCOMMODATION IN COLLEGES.

Only a few days ago Dr. Sundar Lal, the Vice-Chancellor of the Allahabad University, voiced in clear and emphatic words the complaint which is not confined to the United Provinces but is universal all over India, that students are daily turned away for want of accommodation. It is unthinkable to me that such a state of things should be allowed to exist. Those who insist on

measures of the character I have indicated—be it even granted that they are in the nature of reforms—should recognize that they should not be given effect until more colleges are provided adequate to the needs of those seeking entrance to the University. Whatever truth there may sometimes be in the paradox that half is better than the whole, it does not apply to University education. Need I point out to you that the present state of things is especially disastrous to the Muhammadans whose higher education is at that stage when it requires considerable and very kind nursing? The Aligarh College and the Islamiah Colleges at Lahore and Peshawar are at present the only three Colleges owned by the Muhammadan community throughout the whole of India. Here I should like on your behalf to acknowledge the fervent gratitude of the entire community to Sir Haji Muhammad Yusuf Sahib for his most munificent donation of eight lakhs of rupees in the cause of Muhammadan education in Bombay, and which may perhaps be best utilised in establishing a residential college. Of all Presidencies, Bombay is the one which can most easily provide itself with a College like that of Aligarh, if only its other generous merchant-princes make up their minds to concentrate their charitable efforts in that direction. Although the number of Muhammadan students who go up to the Universities is very small, a proportion even of them find it extremely difficult to get admission anywhere and only a limited proportion can get admission in Government colleges. It is beyond the means of our community to compete with the others in founding colleges and schools, and you should lose no opportunity in pointing this out to the Government and ask them if necessary to found more colleges or take such other measure that no boys who are fit and willing to receive University education should be refused an opportunity. I should like here to submit a suggestion to the Government of India that it should annually publish in an easily accessible form the figures

showing the number of students who have been unable to prosecute their higher studies from want of accommodation in the existing institutions.

It is no use disguising from ourselves the fact that there are many Europeans in this country, some of whom are closely connected with the Educational Department and the Universities and who would like to limit the number of graduates who receive their diplomas annually from the Universities. What is often believed to be at the back of their minds is that the number of University graduates should not exceed what can be absorbed in such professions and public appointments as are open to the people of the country. Otherwise, they apprehend that either the opportunities for a career must be widened or discontent will spread in the land. It is perfectly true that the careers open to educated Indians in this country are very limited and I believe it is also indisputable that this fact has been a fruitful source of discontent. But it need hardly be said that the remedy is not to narrow the sphere of higher education, or to reduce the number of persons qualified for a public career. Such a notion is of course impossible of being entertained by the Government. My reason for mentioning it is that there are large sections of the people who believe that some such idea underlies the criticisms that are constantly levelled at our educational system, and at the educated classes generally. I believe the Government realises the necessity for opening further careers for the people of the country. But this is not the occasion for discussing that question. While I am the last person to suggest anything which might even remotely be understood to minimise the importance of that national problem, I believe you will agree with me that amongst Muhammadans and the Hindus, love for learning and culture is not actuated mainly by utilitarian motives. The spiritual, moral, and social value of higher education is in

fact more predominant in the eyes of the Indians than with the Europeans. It has often struck me as a curious irony of fate that Europeans should now and then come forward to instruct us in the nobleness of loving learning for learning's sake. We would all contemplate with unmixed satisfaction the day when, by a rapid process of widening, the field of higher education would embrace every class of Indian population and permeate occupations and walks of life now supposed to lie beyond its scope. Until in fact the stage is reached when every class is enabled to contribute its own contingent of talented youths to the cause of sciences, literature and arts, it cannot be said that India has been given a full opportunity to make a proper contribution towards the advancement of knowledge commensurate with her past traditions and present capacity. For this purpose you must cast the net of higher education far and wide.

ENHANCED STANDARD.

Another class of measures of which one hears widespread complaint are those by which the standard required of Indian students both in the schools and colleges and for the University examinations is being incessantly raised. The fallacy which lies at the root of these measures is, that by sufficiently stiffening the process of selection you could unerringly discover those worthy of receiving higher education, and eliminate only the unworthy. It is well-known that in many men their faculties develop later than in others and history shows that the world of culture would have been a serious loser if the slower men were rejected as unfit at a stage when their blossom of promise was still imperceptible to the schoolmaster. The conviction is growing stronger every day that under the new regulations the Indian boys are made to do far more work than is good for their physical or mental growth. It is a fact that by the time the educated Indians reach an age when intellect generally attains full maturity and experience ripens, they are mostly

incapacitated for any strenuous work by some fatal ailment. A large proportion of them die an untimely death. Among the numerous cases that will occur to you I will mention one, the most recent and conspicuous, that of Gopala Krishna Gokhale whose revered memory and sacred ashes will endow with fresh fame this delightful city of Poona. It is difficult to estimate what India may not have gained if Gokhale had lived in full health, say for another 10 years. I can vividly recall the occasion when a little more than two years ago, while he was in the grip of a mortal malady, how pathetically he mourned over the physical deterioration of the western educated countrymen of his. I feel sure that, if an enquiry were instituted on this subject, facts would be forthcoming showing that we are confronted with something like a national danger. Bear in mind that what I have said applies to the condition of those who were educated under the old regime when much less was expected of the boys than at present. It is alarming to think what effect the new system will have on the rising generation for whose welfare we are directly responsible. It cannot be good to overdrive immature boys and youths. You never know what hidden spring may not snap without its being discovered for years. It is true that now-a-days more attention is paid to out-door games and physical training. This feature of the new regime has, I am sure, the entire approval of the Indian public and it may be hoped that it will in some directions alleviate the situation. But here again it must be remembered that intense physical exertion is not a remedy for the evils of mental overstrain. In fact, the two when combined may often result in a greater harm. It should in fairness be recognized that it is difficult for European educationists in this country, who were brought up in a more vigorous climate and were themselves educated through the medium of their own mother-tongue, to fully realise the effect of a too great mental pressure on Indian youths in the

enervating and uncomfortable climate of the plains. Many of the Indian students are ill-fed, ill-housed and ill-clad and all have to receive their education in a language which is quite foreign to them and which they seldom have an opportunity of speaking or hearing spoken. After all, an average Indian graduate, so far as academic knowledge goes, does not compare at all unfavourably with an average English graduate. An English University graduate, I believe, is possessed of a larger fund of general useful knowledge. But this advantage of his over the Indian graduate is due to his surroundings and not to any greater capacity for industry.

ENHANCED FEES.

The subject of the fees levied at the schools, colleges and Universities is also greatly exercising the minds of those who are anxious that the spread of higher education in the country should pursue a normal course of expansion. These fees, I have been told, are higher than in many educational establishments of Great Britain, the wealthiest country in the world. India is admittedly a very poor country and the general result of enhanced fees will inevitably be to shut out a large proportion of poor students, however deserving they may be. It is in fact argued that higher education is intended only for the well-to-do classes. This however is a notion entirely foreign to us. In the East, learning has never been considered as a privilege of the rich. In fact, the possession or pursuit of riches has only in rare cases been found consistent with the acquisition of great learning or culture. The history of learning in the East, at least in one respect presents a difference from the history of the West. Here learning has always been held in the highest respect, while in the West not very long ago the pursuit of learning was often associated with humiliating conditions. The station of scholars was not much above that of the menial dependants. By our religion and law, the learned are given the most powerful voice in the State polity. The

Classes that have inherited literary traditions and instincts are certainly not the rich among us, but that middle class which is known as the *shurafa*. Unless that class is enabled to supply boys fit to receive University education, the prospect of the community will be poor indeed. It is this middle class which in the pre-British days supplied officers for the Civil, Revenue and Military administration of the country, and produced Statesmen and Historians, Poets and Philosophers and Artists and Engineers. These families, as is well-known, have become entirely impoverished; and our every endeavour should be to see that the recruits to higher education from this source are not shut out for want of means. A matter connected with the administration of the Universities which is the subject of frequent complaints in the community is the inadequate number of its representatives in the Senates, the Syndicates and the Faculties. The special attention of the authorities should be invited to this question.

May I ask those who regard higher education mostly from the utilitarian standpoint to reflect for a moment what the fate of human civilization would have been if their theory was ever acted upon to its logical conclusion. At the present day in Great Britain the scholarship system has been organized on such a comprehensive scale that most boys of more than average capacity, however poor, have a fair chance of receiving the highest education. In India and this part of the East generally, one inherent feature of the old indigenous system was the provision of special and abundant opportunities to poor students. Under the new conditions of life, that system has been swept out of existence; and if its provision for the poor students is not generously reproduced under the new regime, I have great fears that the fame for learning and higher culture which India has always enjoyed from the very dawn of history will soon be lost to her.

SCHOLARSHIPS.

Especially for us, Muhammadans, the necessity

for a large and comprehensive system of scholarships is paramount; and I know of no other method which ranks higher in importance. We want a generous system of scholarships which will extend right through the Primary, the Secondary and University stages. We must so organize scholarships that we should be in a position to select the poor but deserving students as well as the best that are available, from the Primary grade on to the Secondary school and from the Secondary school to the Universities. We are also in need of liberal scholarships, to help competent students to go through the various professional and technical courses. No part of the educational course is so expensive as the technical and professional courses; and unless we are in a position to establish systematic aid by means of scholarships, I fear there is little prospect of the growth among us, in the near future, of sciences like Medicine, Engineering, Agriculture and Mining, Forestry, Geology, Veterinary and the like. Imagine what a loss it is to the community that these lucrative careers should be practically closed to Muhammadans. I think you will agree with me that we should place scholarships in the forefront of our programme. We can fairly ask the Government to contribute towards this object much more than it does at present. We should endeavour as far as possible so to organize our charities that endowments for scholarship should receive a proper support from all well-to-do members of the community.

GOVERNMENT EXPENDITURE.

It is incumbent upon us to acknowledge with gratitude that during His Excellency Lord Hardinge's Viceroyalty grants on a much more liberal scale than in the past have been ear-marked for educational purposes, both of a recurring and non-recurring nature. The object is to advance a more generous scheme of education in the country. Latterly, however, rumours have been afloat to the effect that the expenditure on education is likely to be curtailed

EDUCATION OF WOMEN.

The subject of women's education as you know by experience is beset among us with the greatest difficulties. Though the quantum of such difficulties varies in different Provinces, everywhere alike it is in the first place the lack of competent women teachers that stares us in the face. One necessary measure, therefore, that we have to adopt is to train teachers; and until that is done the advancement of women's education must be extremely slow. We must aim at securing an adequate number of Muhammadan women teachers; but the difficulty at present is to obtain persons who are willing to pursue the profession of teaching. I take it that we shall have to draw upon the class from which the *Ustans* used to be recruited and induce them to receive proper training. In order however to give them training, you would require both teachers and pupils. For the one we must, to begin with, rely upon non-Muhammadans, either Brahmins or Christians. I am afraid that the work must be necessarily slow. But it has to be faced with considerable perseverance and concentrated effort. Already Her Highness the Begum of Bhopal has taken a large step in this direction. Mr. Syed Karamat Husain has established a *Purdah School* at Lucknow. A similar school has been established at Aligarh. Two enterprising and enlightened Muhammadan ladies have founded girls' schools at Calcutta and they are doing well. The Punjab, I believe, takes the foremost place in this respect and I have no doubt that Bombay will not long lag behind. The *purdah* system as prevalent here admits the possibility of young girls receiving a fair amount of education. Madras, I regret to confess, is not making much headway, though there is an excellent institution there called 'The Hobart Training School.' But hitherto its resources have been utilised more or less for elementary instruction among a limited class of the poorer members of the community. There should be little difficulty in supposing that the Government are well-disposed

by reason of the war. The existence of this rumour has already caused considerable uneasiness in the public mind. If I may make so bold as to suggest, the Government should reassure the public on the point. The people want to be told definitely that by whatever other ways and means the Government may meet the necessity for curtailing public expenditure, the Department of Education at least should not suffer and it should be allowed to carry out the more liberal programme which has been recently inaugurated.

EDUCATION IN FOREIGN COUNTRIES.

There is another very important question which deserves your vigilant attention; it relates to the opportunities which our young men have of completing their general, professional or technical education in Europe and America. It is common knowledge that Indian students in Great Britain complain bitterly of the difficulties which they have to encounter there. Restrictions which were unknown before have been imposed on Indian students, and many of them find it impossible to obtain admission to Universities like Oxford and Cambridge and in some large hospitals where medical students are trained. I do not wish to suggest to you that the question is easy of settlement, but it is of the highest importance from many points of view that it should be settled. I believe greatly in the liberalising effect which education in Europe has on Indian students. Western education cannot have its full significance in many cases unless an opportunity is afforded for the completion of that education in the midst of western conditions of life. Besides, for many branches of professional and economic sciences adequate facilities are admittedly not available in India at the present day. And the people are entitled to expect that so long as western education in the country, general, technical and professional, has not reached the highest level of efficiency, our young men should be encouraged to go to Europe for the purpose of necessary training.

towards the cause of women's education. At the present moment, we may be satisfied with asking the Government to make liberal grants to such private institutions as now exist and to establish in each Province at least one Purdah school to teach up to the secondary standard. It may be that the classes may take a few years to fill up, but the cause is worth a little waste of money in the inception. And of course we must have schools for training women teachers in each Presidency.

MUSLIM UNIVERSITY.

The question of the Muslim University, as you are aware can only be settled by the University Association in consultation with the Government. What this Conference or I as your spokesman can do is to help the public in understanding the situation as it is, and to make such suggestions as in our opinion will best advance the interests of the community. You are familiar with the history of the movement and I need not repeat it. It is not long ago that the idea was hailed all over India and Burma with universal enthusiasm and supported with a single-minded earnestness of purpose for which I find few parallels in the latter day history of the Muhammadans of India. Now, however, that the question has reached a stage when it is left with the Government to decide to what extent and in what form their wishes and hopes in this connection should be fulfilled, an unmistakable feeling of depression and pessimism has seized the community. Enthusiasm seems to have disappeared from the breasts of all. Some indeed—I believe they form a decidedly small minority—having regard to what has happened, would definitely and once for all forego the scheme. They would devote the University Fund to other educational purposes likely, in their opinion, to yield as good if not better results. I may be permitted to say that I fully understand this point of view, but I must at the same time candidly point out that it is not open to us to act upon any such idea unless we obtain the sanction of the

donors. There are many men who doubt if we can secure such sanction; but it is hardly necessary in my opinion to contemplate the contingency. I may however say that I have much too high an opinion of the magnanimous spirit of the donors to fear that, if the representatives of the community either unanimously or by a majority decide that the money that has been collected should be devoted to educational purposes other somewhat different from those originally in view, any of them would seriously think of attempting to withdraw their gifts. The well-known saying of the Prophet that a man who retracts a gift is like one that swallows his own vomit emphatically describes the unmitigated abhorrence in which such conduct is held in Islam. I am convinced that it is still the general desire of the community that we must strive to secure an University which will be in conformity with the main outlines of our long-cherished expectations. To put the matter very briefly, what we wanted was an independent self-governing University whose centre would be Aligarh, but which should be capable of directly serving the community in other Provinces as well. We had been already in negotiation with the Government for some time when the Hindu University movement came into being. But the question is, now that the Benares Hindu University Act has been passed what is our position? First of all, is there nothing more for us to say and has the Benares Hindu University Act settled the matter finally for us as well?

I have studied with some care the Benares Hindu University Act and the correspondence on the subject of the Muslim University. The difficulty of the present position to my mind has arisen mainly from some unfortunate expressions in a letter addressed by Sir Harcourt Butler to the Rajah of Muhammadabad on the 25th of September last. They were to the effect that he would meet a Deputation of the Muslim University Foundation Committee, only if they contented themselves with making a formal repre-

sentation, simply applying for a charter on the basis of the decisions on the questions of principle settled for the Hindu University. That has been understood to mean that although the Muhammadans were no party to the negotiations between the Promoters of the Hindu University and the Government, although they had been moving for an University long before the Hindus appeared on the scene and the interests that would be affected in their case as represented in the Aligarh College were larger and more deep-rooted than those of the Benares College, they had to submit themselves unconditionally to the terms of the Benares Hindu University Act, so that the sections of the Act might be bodily transferred into the Muslim University Act. The position being so understood, the representatives of the community thought that they had been treated with scant consideration and were naturally reluctant to appear before the then Education Member with their lips sealed and their hands and feet bound. After that letter I believe there has been no further correspondence between the Foundation Committee and the Government. It may perhaps be doubted if Sir Harcourt Butler intended to take up such an inaccessible and immovable attitude. If that be the attitude of the Government of India, I am afraid an overwhelming body of public opinion would be opposed to such an absolute surrender. I do not believe however that the Government of India desire to assume an uncompromising attitude. I do not see any reason why the Government should say that the door for further parley is closed. It is highly desirable that a settlement should be arrived at if possible, and as soon as practicable. There can be no question of a settlement unless both the sides are in a mood to give and take.

Now, what have been the community's expectations? You may remember that from the very outset it has been working for an University which should have the power to affiliate Colleges other than the Aligarh College, that is, an University based to that extent on the model of the existing

Universities. Aligarh was to be the centre and the Aligarh College would have been the principal and for sometime at least the only affiliated College. All the advantages which a residential and teaching University offers would have been available in their fullest measure at Aligarh. They expected that, when other Colleges were ready to be affiliated, conditions relating to residence and teaching similar to those that obtained at Aligarh would as far as possible be enforced under the supervision and direction of the University. That is the development which the community had before its eyes when the scheme for an University was launched. Such an University would have partaken of the character of a residential and teaching University more than of the merely examining Universities such as the Government Universities. People of all parts of India enthusiastically contributed to this scheme in the expectation of having an University whose jurisdiction might be extended in suitable circumstances beyond the limits of Aligarh. It is largely believed that the expectation was to a great extent encouraged by the Government. However that may be, the reason does not seem to be clear why the Muhammadans or the Hindus when they came forward to establish Universities at their own expense should be told that they were to have a charter, only, if they conformed rigidly to the Oxford and Cambridge type and not to the type hitherto recognised by the Indian Government. I can quite understand that beyond certain limits the affiliation of distant Colleges may not be desirable; and it is a reasonable matter for consideration how far the jurisdiction of an University which has its centre at Aligarh should extend. I do not see any good ground why negotiations should not take place with the Government on that basis.

As for the constitution, the Hindu University itself whose powers of affiliation are limited to Benares has been described by Sir Harcourt Butler as an All-India University and he

stated the reasons which in his opinion justified the description. The University at Aligarh must also be an All-India University open to students drawn from schools and colleges from all parts of India, controlled by representatives of different Provinces and guided by men who need not necessarily be residents of Aligarh. I take it that the best men of the community from all parts of India will be represented on its Court; its Vice-Chancellor, Pro-Chancellor and perhaps also the Chancellor may be men who reside at places other than Aligarh though in its neighbourhood, and it is also very likely that a number of members of its Senate and Syndicate will be men belonging to Allahabad, Lucknow, Delhi, Bankipore and even Lahore and Calcutta, if not elsewhere. I expect that men of the highest position in the community, of intellectual and literary attainments, officials and non-officials, men whose sagacity, good faith and loyalty cannot for a moment be doubted, will be represented in the University. The position however of the Government, as I understand it, is that as it is asked to recognise the Degrees of the University and as it will also make a liberal grant, it should have certain powers of intervention so as to ensure that a proper standard is maintained. I am aware that the argument is open to the objection that in fact the Government does recognise the Degrees of Universities over which it exercises absolutely no control. However, it may be conceded that the attitude of the Government in this respect is reasonable and I venture to submit to you that you should accept the position that the Government should retain certain powers of intervention for the purpose of keeping up the standard to the desired level. The practical question relates to the extent and form of that control and surely we are entitled to be heard in the matter. There also prevails, I believe, a general apprehension that private educational institutions are liable to be made disseminating ground of sedition, unless they are subjected to official control and supervision. I do not know if

any such notion influenced the Government in reserving to itself the powers of control as provided by the Benares Hindu University Act. I need hardly say that such an apprehension is baseless in connection with an institution like the Benares Hindu University or what we are asking for, a Muslim University. If the class of men who would be responsible for the government of these Universities be capable of countenancing sedition, then to my mind the word sedition has no meaning. But still I am prepared to accept facts as they are. I know the apprehension does exist in certain quarters. But here again it is possible to provide adequate safeguards without resorting to such drastic measures as those of the Benares Hindu University Act.

I believe you will find no difficulty in accepting the assurance that neither the Lieut.-Governor nor the Government of India is likely in practice to exercise the large powers which have been reserved to them. In fact it is impossible to conceive that any occasion will ever arise when they will find it necessary to interfere with the proceedings of a University constituted as the Hindu and Muslim Universities will be. But the danger which we apprehend is of a more subtle character and largely inherited from the past history of the Aligarh College. There are a few men—and they will be represented on the University—who are apt to make differences of opinion matters of personal grievance and it is feared that such men will not loyally abide by the proceedings of the governing bodies if they knew that there was a higher authority which could set them aside. Whatever power of control it may be deemed necessary to reserve in the Government it should at least be in such a form as to make it difficult of being put into operation by persons of the class I have indicated.

We all know that the Lieut.-Governor of the United Provinces is an extremely hard-worked dignitary and the result of vesting him with such

wide powers as in the Benares Hindu University Act would either be infructuous for any good purpose or they will be exercised in actuality by the usual departmental machinery of a Local Government, the Collector, the Commissioner and the Secretariat. And their action will be founded on the report either of subordinate officials or of dissentient Members of the Senate, the Council or the Court of the University. Apart from any question of an undue exercise of the visitors' or the Government of India's powers, is it in keeping with the dignity of an University that its proceedings should be liable to be set at naught at the absolute discretion of an outsider? Besides, having regard to the fact that it will be an All-India University, is it not more appropriate that the faculty of control should rest in the Head of the Government of India? There are also important questions relating to the constitution of the Court, the Council and the Senate and their respective functions which have to be considered in the light of the special circumstances of the Muhammadan community and the Aligarh College. I have indicated to you the general lines on which we should frame our representations to the Government of India. The new Education Member will not be hampered in dealing with the situation by every past incident. My further advice to you is that we should try our best to reach a settlement during the Viceroyalty of Lord Hardinge. He has already acquired the confidence of the people and it will be in the interests of the community that you should make every possible endeavour to obtain a charter before he leaves us. We may request the Education Member to receive a deputation so that it may discuss with him the situation with a view to a settlement. The Committee cannot yet commit itself to a decisive course of action, but when it has ascertained from the Government of India its final decision on the proposals that you may make, it will be in a position to advise the Muslim University Association in the light of what transpires.

I need hardly say that if we are able to make any suggestions acceptable to the Government of India, which will be an improvement on the present Benares Hindu University Act, it will be open to our Hindu brethren to avail themselves of those suggestions, if they so desire.

Let us hope that a proper charter will soon be granted for a Muslim University at Aligarh, for there can be no doubt that education in the community will from thence receive a fresh and very powerful impetus. That University however will mostly serve the Upper India. It is a sign of happy augury that the Government of Mysore has recently launched a scheme for a separate University. For many years, the Muhammadans of India have been looking towards Hyderabad for a similar movement, and I can think of no other measure which would be so well calculated to advance the educational interests of the community in Hyderabad itself and generally in the south and the west. The matter should be properly and respectfully impressed upon the attention of His Highness the Nizam's Government.

GENERAL.

I have now dealt with what in my opinion are the more urgent and salient features of the educational situation. You can well realise that we are confronted with vast and difficult problems upon whose adequate solution depends largely the future of the Muhammadan community and the entire country. We are at the very threshold of our task. Time has arrived when we must organize our efforts on a far larger and more comprehensive scale than hitherto. In every Presidency Town we want a Central Organization which will be in a position to look after the education of the community by means of local agencies to be established throughout the Presidency. It should be competent to give weighty advice to the Government after focussing public opinion of the entire community. Such Associations would enroll in their membership all the influential and leading

men of the community and secure their active sympathy and co-operation. There should be different sections dealing with particular branches of education such as I have indicated, and the Conference Committee at Aligarh must be in constant communication with the provincial bodies. In every large city, Committees have to be formed in each *mahalla* on which the influential residents of the *mahalla* will be fully represented and it should be the business of this Committee to look after the needs of primary education in the locality. Similarly, there must be Branch Associations in the District towns and sub-divisions extending at least to every village where there are Muhammadan boys to be educated. The rudiments, but only bare rudiments, already exist of such a national educational organization in several Presidencies, as in Madras, the Punjab and the United Provinces. But if we are really to work out a wide reaching programme of education, the existing Educational Associations and Societies will not only have to be much extended but must be made far more active and alert. Then I need hardly mention that the needs and the capacities of the Provinces differ in many respects. For instance, if we are to select for experiment a province best suited for commercial education, I would unhesitatingly select Bombay, whose people possess such a remarkable gift for business. Similarly, the industries vary in different provinces and different programmes will have to be chalked out in respect of each province suitable to its needs and requirements.

CONCLUSION.

In short, this is almost a limitless field for national labour. But, may I not say that it is one worthy of your past traditions. Remember that the achievements of the Muslims in all parts of the world have seldom been surpassed either in magnitude or in magnificence. Wherever they went, they have left behind them monuments which are among the greatest productions of

human genius. Some of the most wonderful and most beneficent creations of men were theirs. It was always some great idea which attracted and stimulated their energies. They lived for great deeds and the whole history of Islam shows that its success was achieved by constant striving after something noble. Here is a noble cause, indeed, worthy of a magnanimous ambition, the uplifting of your community from the depths of ignorance and poverty to which it has been reduced, to knowledge, power and prosperity. May God give us all strength to do our duty.

REPORT OF THE JOINT EXAMINATION BOARD COMMITTEE, BOMBAY.

The Committee was appointed jointly by Government and by the University to consider Sir Alfred Hopkinson's suggestion that a Board of 12 members, consisting of representatives of the University, representatives of Government, and co-opted members chosen from the leading school-masters, should be entrusted with the whole conduct of the Matriculation and School-Final examinations, including the nomination of examiners; along with the recommendations of a committee appointed by the Syndicate, (a) that such a Board might conveniently consist of four representatives of Government, four of the University, and four gentlemen chosen from leading school-masters, two nominated by the University and two by Government, (b) that no changes should be made in the constitution of the Board except with the joint consent of the University and of Government, (c) that the Board should be given full control of an examination so arranged as to serve the purpose of both the present Matriculation and the School Final, (d) that the subjects at present prescribed for Matriculation should be retained, and (e) that the examiners should be nominated by the Board.

2. The Committee met several times between December 1914 and September 1915. The Honourable Sir Pherozesha Mehta, a representative of the University, was able to attend only the first meeting. Professor G. Anderson, a representative of Government, was transferred to Simla in June and ceased to attend the meetings.

3. The Committee have considered the suggestions referred to them, and are of opinion that it is both feasible and desirable to institute a Joint Board for the examination of schools and the issue of School-Leaving certificates which will serve the purpose of both the Matriculation and School-Final examinations.

4. In place of a number of recommendations the Committee beg to submit draft regulations covering the principal points of the scheme. These do not profess to be a complete body of regulations, but they will serve to give a concrete idea of the nature of the proposed Board and its operations. The Committee think that, if the principles involved in these regulations are accepted by the University and by Government, it will be easy for the Registrar's office to fill in the remaining details.

5. The conditions proposed for the registration of schools are the same as those at present laid down by the University, with the addition of the rule about leaving certificates laid down in the Grant-in-Aid Code, which will enable the Board to check unfair dealings as between school and school.

6. The maintenance of a school record for the last two years of school life is recommended in deference to the policy of the Government of India, which we understand to be binding upon the local Government in respect of any school-leaving certificates which they are to recognize. In view, however, of the variation of standard in different schools the majority of the Committee are opposed to the idea of this record being utilized in any way by the examiners in connection

with the results of the examination. They think that it will suffice if the Board scrutinize the records with a view to checking any marked vagaries on the part of individual schools.

7. The other novel features of the scheme are the proposals (a) that all the pupils of the highest class should be examined together, each school being furnished with a report on the general character of the work done, and (b) that the examination should be held as far as possible in the school itself, or at any rate in the same town. The Committee are aware that these proposals involve considerable difficulties of organization, but they are of opinion that these are not insuperable, and that if they are overcome, not only will there be no further need for *mandaps* and large accumulations of candidates, but the examination itself is likely to exercise a most beneficial and salutary effect upon the highest classes of the schools.

8. A candidate who passes even in one or two subjects only will be able to obtain a certificate which may be of some service to him; but the certificates will not serve the purposes of the present Matriculation and School-Final certificates unless they conform to the conditions at present attaching to those examinations. In this connection, however, the Committee venture to recommend the restoration to their former place in the examination for Matriculation of the subjects of geography, vernacular (or its equivalent), and science, as it seems to be agreed that the omission of these subjects from the examination has led to their being comparatively neglected in the schools. The Committee, however, hope that it will be found possible to deal with science in such a way as not to impair the practical turn which is being given to the work in this subject.

9. In the case of the subjects which are to be recognized as equivalent to the present School-Final examination the Committee recommend a reversion to the former practice by which of the

mathematical subjects only arithmetic was made compulsory, as it is understood that the transfer of algebra and geometry from the optional to the compulsory list has practically killed the other optional subjects.

10. The Committee have recommended the holding of the examination twice a year, the main examination being in March. They recognize, however, that in view of the large amount of organization required it may be found desirable to postpone the introduction of the October examination until the Board has perfected its organization and made sure of an adequate supply of competent examiners.

11. The Committee have no changes to propose in the syllabus at present laid down for the various subjects under the Matriculation and School-Final rules respectively. The subject of "domestic science," however, is a new one, for which a syllabus will require to be prescribed. The introduction of this subject will, it is hoped, be a convenience to schools desirous of preparing girls for an examination which will correspond to the present Matriculation standard without including exactly the same subjects.

12. It is impossible at this stage to forecast the expenditure involved in these proposals, though it may be expected to exceed to some extent the present cost of the Matriculation. The Committee have indicated the financial provision that might be made at the outset, the Board being left to apply to the University or to Government for more funds if required. The University at present makes a profit on the Matriculation of twenty thousand rupees, or even more, a sum which it can ill afford to lose. The Committee suggest that the University should approach Government with a view to securing a guarantee against pecuniary loss if the present proposals are carried out.

13. The Committee consider that the Board may be left to determine what shall constitute

passing and passing with distinction in each subject, the University only laying down from time to time the standard of attainment which it regards as the minimum for the purpose of Matriculation.

14. The Committee consider that the prizes and scholarships at present attached to the Matriculation might continue to be awarded by the University on the strength of information to be supplied by the Board; but they feel that this is a subject on which legal advice must be sought.

W. H. SHARP.

D. MACKICHAN.

J. N. FRASER.

G. N. KHARE.

R. P. PARANJPE.

HAROLD H. MANN.

JOINT EXAMINATION BOARD FOR THE ISSUE OF SCHOOL-LEAVING CERTIFICATES.

(DRAFT REGULATIONS.)

1. The Board shall consist of thirteen members, viz., a chairman and four members nominated by the University, four members nominated by Government, and four representatives of the schoolmasters of the Presidency, two of whom shall be nominated by the University and two by Government.

2. The chairman shall hold office for four years, and shall be eligible for re-appointment.

3. The members shall also hold office for four years, and shall be eligible for re-appointment. At the end of two years after the constitution of the first Board one half of each group of four members shall retire by ballot, but shall be eligible for re-appointment; thereafter one half of each group of four members will retire regularly every two years.

4. There shall be a salaried Secretary to the Board, with a suitable office establishment.

5. Subject to such rules as may from time to time be approved by the University and Government jointly the Board shall conduct examinations for the issue of school-leaving certificates. The appointment of examiners and all the arrangements for these examinations shall be controlled by the Board.

6. A sum of money shall be placed at the disposal of the Board each year by the University and by Government, equivalent to the provision ordinarily made by them for the present Matriculation and School Final Examinations respectively, or such further amount as experience may show to be necessary. Any profits accruing from the examination shall be made over to the University.

7. The examination shall normally be held in the months of March and October, the date and programme being notified in due time each year. But any prizes or scholarships attached to the examination shall be awarded on the results of the March examination only.

8. The Board will keep a register of schools permitted to present candidates for this examination. Applications for registration should be addressed to the Secretary to the Board, and accompanied by such information as may be prescribed by the Board. The conditions which shall ordinarily qualify for registration are—

(i) that the school supplies a want in the locality in which it is situated;

(ii) that the management is so constituted as to offer a reasonable prospect that the school will be well conducted;

(iii) that the teaching staff is sufficient and sufficiently qualified;

(iv) that the school is housed in suitable buildings and adequately equipped;

(v) that the resources at the disposal of the managers are such as to afford a reasonable expectation that the school will be efficiently maintained;

(vi) that the school maintains regular classes from the fourth standard upwards;

(vii) that no pupils are admitted without a leaving certificate in the prescribed form from the last school attended by them, and that all such certificates are filed upon the school records.

Any change in these conditions must be approved by the University and Government jointly.

9. Every registered school must undertake—
(a) to supply the Board with such returns and information as it may require;

(b) to afford facilities for inspection to the members or representatives of the Board;

(c) to maintain a school-record in the prescribed form for every pupil in the 6th and 7th Anglo-Vernacular standards (or those corresponding to them in the case of other schools);

(d) to present all the pupils who have spent one school year in the 7th (or highest corresponding) standard for examination, except such as may be debarred by illness or other cause which may in the opinion of the Board be adequate.

10. Any registered school desirous of presenting candidates for the next ensuing examination must communicate to the Secretary to the Board not later than ——— months preceding the examination the subjects in which candidates will be presented, and the approximate number of candidates in each subject.

11. Applications for admission to the examination must be made in the prescribed form, and must be accompanied by the school record (in duplicate) and by a fee of Rs. 12, which will in no circumstances be refunded. The latest date for sending in the applications will be duly notified.

12. A candidate who has appeared for the examination, but failed to get a certificate fulfilling the requirements of rule 22, may appear again on a subsequent occasion, on payment of a fresh fee, in the same or other subjects. If he

has ceased to attend school his application must be forwarded through the headmaster of the school from which he originally appeared.

13. In cases of *pouit fide* transfer (i.e., transfer from one school to another in accordance with the rules of the Educational Department) during the period of attendance in the 6th and 7th standards the certificate in Form — must be signed by the respective headmasters.

14. The subjects of examination are the following:—

1. English.
2. The vernaculars of the Presidency (Maráthi, Gujaráti, Kánarése, Sindhi, Urdu and Portuguese), or an additional course in English.
3. Additional languages (Sanskrit, Pali, Avesta and Pahlavi, Arabic, Persian, Hebrew, Latin, Greek, French, German).
4. Mathematics (Arithmetic, Algebra, Geometry).
5. History and Geography.
6. Elementary Science.
7. Drawing.
8. Manual Training.
9. Book-keeping and Commercial Correspondence.
10. Short-hand and Typewriting.
11. Domestic Science (for girls).

The Board will have power to add other subjects from time to time. A candidate may be presented for examination in any number of subjects.

15. A syllabus showing the nature of the examination in each subject will be published for the guidance of teachers. Great importance is attached to handwriting, spelling, accuracy and neatness of work; and deficiency in these respects may entail the failure of the candidate.

16. Questions in History, Geography, Sanskrit, Arabic, or Persian may be answered either in English or in Maráthi, Gujaráti, Kánarése, Sindhi, Urdu at the option of the candidate, provided

that such option is previously declared at the time of filling up Form —.

17. As far as possible the examination will be held in the school presenting the candidate, or in any suitable centre in the same town.

18. A list will be published in due course giving the names of the successful candidates together with the subjects in which they have passed.

19. The certificates granted to the candidates will show the subjects in which they have passed, or passed with distinction. Each certificate must bear the holder's signature in English. These certificates will be issued through the heads of the schools from which the candidates appeared.

20. A certified copy of his school record will be granted to any candidate who applies for it.

21. The Board will require the examiners in each subject to submit a detailed report on the work of the candidates examined by them, which will be circulated to the schools. The Board will compare the general results of the examination in each school with the records of the candidates, in order to determine whether a reasonable standard is maintained in the school. A school which persists in sending up candidates a large proportion of whom is, as shown by the results, below the standard of the examination, may be removed from the register.

22. The School-Leaving certificate will be accepted by the University of Bombay as equivalent for all purposes to its Matriculation certificate, provided that the candidate has passed at one and the same examination in English, a vernacular (or an additional course of English), an additional language, mathematics, history and geography, and elementary science, according to the standard in each subject to be fixed from time to time by the University; and provided that he completes 16 years of age on or before the 1st of August in the calendar year in which the examination is held.

N. B.—The standard recommended for the present is 40 per cent. of the full marks in English, 33 per cent. in other subjects, and 40 per cent. of the total.

23. The School-Leaving certificate will be accepted by Government for all purposes for which the present School-Final certificate is accepted, provided that the candidate has passed at one and the same examination in English, a vernacular (or its recognized equivalent), arithmetic, history and geography, and one of the following:—Additional language, algebra and geometry, elementary science, drawing, manual training, book-keeping and commercial correspondence, short-hand and typewriting, or (in the case of girls) domestic science; and provided that he completes 16 years of age on or before the 1st of August in the calendar year in which the examination is held.

24. The school record shall be maintained from the beginning of the next school year, viz., June 1916, and the first examination to be conducted by the Board shall be in March 1918. The Board should be constituted not later than April 1917, and the necessary financial provision should be made for the year 1917-1918.

25. If a candidate desirous of appearing at the examination has not attended a registered school in the 6th and 7th standards, he must apply direct to the Secretary to the Board, stating all the circumstances; and the Board will decide whether and under what conditions he shall be admitted to the examination, and at what centre.

26. On the occasion of the first examination to be held by the Board the school record may show the career of a candidate for two years in the 7th standard instead of for one year in the 6th and one in the 7th.

27. The Board shall have power to frame by-laws and rules for itself and for the examiners appointed by it.

Instructions for filling up the following School Record form.

1. In Anglo-Vernacular standards VI and VII progress should be tested by periodical examinations, preferably weekly, in one subject at a time, to be held usually on Saturdays and never on Mondays. An oral test should from time to time be included in these examinations.

2. The papers after being marked by the class-master should be checked by the headmaster or another assistant, and the marks recorded systematically.

3. The 6th standard should have an annual examination, the marks of which should also be recorded. The maximum marks for the weekly examinations in the second term should be reduced to an equality with the maximum marks for the annual examination.

4. For each term the marks gained by the pupil at the weekly examinations (and at the annual examination when held) should be reduced to a percentage for each subject, and entered in the proper space in the record, together with the average marks of the class. The marks entered should be whole numbers only.

5. In the case of pupils absent on medical certificate, or on leave duly sanctioned, the percentage should be calculated on the maximum possible to them, i.e., excluding the marks given during their absence.

6. Provision is made for 4 years to allow for cases when the pupil is detained in the same standard. If still more space is required an additional form should be used.

7. The second term of any year is that which terminates in the annual School-leaving Certificate Examination.

PROPOSED FORM OF SCHOOL RECORD.

Record of School work in Anglo-Vernacular Standards VI and VII.

Standard.	Year.	Term.	Percentage of marks in each subject together with class-average.								Attendance.		Conduct.	Special aptitudes : Proficiency in games, etc.
			English.	Vernacular.	Second language.	Arithmetic.	Algebra and Geometry.	History.	Geography.	Science.	No. of school days.	No. of attendances.		
	1st	Percentage ...												
		Class-average...												
	2nd	Percentage ...												
		Class-average...												
	1st	Percentage ...												
		Class-average...												
	2nd	Percentage ...												
		Class-average...												
	1st	Percentage ...												
		Class-average...												
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		Class-average...												
	1st	Percentage ...												
		Class-average...												
	2nd	Percentage ...												
		Class-average...												

REVOLUTION AND SECONDARY EDUCATION.

There have been two chief reasons why public education in England has reached a stage when a drastic revolution is necessary if the nation is to renew and magnify its Imperial life after this war. Those reasons can perhaps be most easily understood by a brief reference to the historical events that gave rise to them. The conclusion of the Napoleonic wars found England practically illiterate and yet in a position to control the trade of the world. Education in England was perhaps at its lowest level when the terrible wars that raged from 1756 to 1815 first smote the land. It was towards the end of this period that the dire necessities of the country in the matter of education became apparent to all observers. In 1815 State aid for the new and struggling Monitorial Schools was still eighteen years away, and the aid when it came was very small and quite irrelevant—save in so far as it made religious teaching more possible—to the deepest needs of a nation. We have to remember that those sixty years of war had given England the control of the trade of the world. How was she to exercise that control when her people, her workers, almost without exception, were uneducated and untrained? There is no more saddening story in the history of economics than the record of the way in which England played her part in the new industrial age. The reports of the school Inspectors in the mid-nineteenth century show us such a mad industrial extravagance in child-life, such a total inappreciation of the future of the race and the nation as to make it a matter of surprise that England has won through at all. The Education Act of 1870 and compulsory education were an expedient to meet the most terrible social situation that any nation has had to face. It was a poor expedient, but it at any rate secured the preparatory elements of educational progress for practically all children.

The legislators of 1870 and 1876 were obsessed with the notion of education that seventy years of voluntary effort had promulgated. The primary conception of education crystallized in the Act of 1870 was stamped into the mind of Parliament and became the guiding light of the Education Department. This conception has been one of the chief reasons why we are faced with our present problem. So long as the Central Education Authority thinks in the terms of the Act of 1870 and of the policy of which that act was the crown, so long will educational and, therefore, national progress be impossible. The second reason why a revolution is necessary is the conception of the scope of education held by the education authorities. The country cannot escape from the limitations imposed by the

educational ideas that are enshrined in the Acts of 1870 and 1876 until it has learnt to think of education, not merely as a means for conveying to the masses of the people a certain minimum measure of book-learning, but as a biological process for supplying to every child an outfit for life. We need a revolution in the conception of education in its relation to the life of a people, and we need machinery that will make the new conception operative. Now what in fact has gone on during the long educational struggle of the last half century has been the endeavour to adapt old machinery to new needs without realization of the fact that the new needs imply a new principle. New wine is poured into old bottles, and nothing but economic loss is the result. The struggle of the great School Boards to extend the significance of elementary education; the growth of evening schools; the development of what may be called intermediate education on lines unrelated to primary education; the determined attempt by and under the Acts of 1899 and 1902-3 to unify the various grades of education by administrative process—these efforts, which prove not only that educational progress is intensely desired by both political parties, but that central and local administrators are prepared to spare no efforts to make the machinery meet the need, have led only to failure. We have to-day two million children between the ages of twelve and seventeen years who are passing or have passed through the educational machine and are doomed to lifelong failure. It is the principle that is wrong. No modification of the primary ideal can save the situation. Whether it stands alone or is supplemented by extensions representing other ideals, it has failed to supply the children of the nation with an outfit for life.

We have suggested that the bold adoption of the principle of compulsory secondary education for all will give what forty years of compulsory primary education has failed to give. Various critics of the proposal condemn it on the ground that secondary education, as that term is understood by many persons, is, even if available, inadequate for the purpose in view. It is important to try and arrive at a clear definition of the significance of the term "secondary education" as we understand it in connexion with the present proposals. We do not understand by it, so far as curriculum is concerned, merely the grammar school teaching of old days or the highly specialized classical teaching which has played and to some extent still plays a great part in the education of the well-to-do classes. But such teaching, in so far as it is properly carried out, contains the educational element which entirely distinguishes primary from secondary, or, we should prefer to say, intermediate, education. The goal of such teaching, as of all

true secondary teaching, is that training of the mind and personality in concentration, alertness, individuality, precision, taste, which results in the assimilation of knowledge and the formation of character. The classical training is but one of a hundred ways of achieving the same end, but in the hands of a skilled teacher it is a valuable way, for it brings the scholar's mind into direct contact with the genius of the great writers of great ages. But, nevertheless, it is the teacher, not the way, that really matters. If the scholar has mastered his tools in the way of a thorough knowledge of reading, writing, and arithmetic and has been trained in discipline, then when the secondary teacher takes him or her in hand the goal will be reached, whatever the way chosen may be, and the way can be varied to suit both the capacity and the possible future of the child. Mr. Matthew Arnold, in an interesting passage, declares that:—

The idea of a general, liberal training, is to carry us to a knowledge of ourselves and the world. We are called to this knowledge by special aptitudes which are born with us; the grand thing in teaching is to have faith that some aptitudes of this kind everyone has. This one's special aptitudes are for knowing men—the study of the humanities; that one's special aptitudes are for knowing the world—the study of nature. The circle of knowledge comprehends both, and we should all have some notion, at any rate, of the whole circle of knowledge.

Mr. Arnold goes on to point out that after the beginnings of a liberal culture are acquired, a period of bifurcation comes according to the child's aptitudes and aims; "either the study of the humanities or the study of nature is henceforth to be the predominating part of his instruction." This was written many years ago and was apparently intended only to apply to the middle classes, as was the following remarkable passage:—

If secondary instruction were organized on a great and regular scale, if it were a national concern . . . its greatest boon to the offspring of these classes would be its giving them great, honourable, public institutions for their nurture—institutions conveying to the spirit, at the time of life when the spirit is most penetrable, the salutary influences of greatness, honour, and nationality—influences which expand the soul, liberalize the mind, dignify the character.

The gospel which the great Apostle of Culture preached to the Philistines, that we declare to the Gentiles also. It is true that we venture to enlarge his definition of secondary education and to generalize for all classes and all ways of education the principle which he limited to one class and to two great groups of subjects. We claim that when once the child has had a thorough prepara-

tory training—such a training up to the age of eleven as he has now—he shall have for four years a liberal training in a school that uses hand as well as brain for the acquisition of knowledge of himself and the world and that then there shall at the age of fifteen be not merely bifurcation, but branchings off in such directions as the experience of skilled teacher during four years shows to be the direction for this or that child—for one group continued school life, with special training in humanities, or in higher mathematics, or in applied science; for another, apprentice work in industrial, or agricultural, or mercantile life, but with some hold still retained, some claim still, on the child's daylight time till the seventeenth year is reached, if it be but two mornings or afternoons in the week. Experiments in these directions are now being made in the case of boys employed in the Post Office and with the best results.

Our conception of secondary education is neither narrow, limited, nor Utopian. Our demand that it should be universal has the support of Dr. Monroe, a great American educational thinker. He declares that in America "there is a dawning perception that secondary education must become universal," first as a matter of expediency in securing social service and efficiency, and then as a matter of necessity as political, economic, and social problems become urgent. Here and now they are urgent to a degree that will be displayed with terrible reality after the conclusion of peace. It is for this reason that we stand for universal secondary education and gladly welcome the volume of criticism as well as conviction which has met our proposals. We think that we have, in the general remarks and doctrines laid down above met most of the criticism. We agree that in some rural districts the preparatory education is not up to the standard of the great towns, but we believe this to be exceptional. While the theory of teaching in the secondary schools is admirable, yet we are not prepared to deny that there is too much memory work, and that the teachers are apt to leave too little to the initiative of the child. This is the great danger of modern methods. Mr. J. B. White, of Bristol, in a recent debate on our proposals, thinks that we have not sufficiently recognized the great changes wrought by the Board of Education during the last ten years. We have always recognized the splendid efforts made by the Board; our point is that they have been ineffective, and must continue to be ineffective while the Board stands for a primary system patched with new cloth. The criticisms aimed at our proposals convince us more than ever that an educational revolution is necessary.—*The Times Educational Supplement.*

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THE HISTORY OF THE PALLAVA DYNASTY.

SECTION II.

THE PERIOD OF PRAKRIT CHARTERS.

TAKING up the history of the first period, the period of the Prakrit Charters, the first thing which strikes us is the singular uncertainty of its chronological beginning. The compiler of the *Madras Manual* quotes the Buddhistic records of Ceylon to prove that the Pallava Kingdom existed in B. C. 157. The holders of the Persian theory, on the other hand, assign the middle of the second century A. D. as the earliest limit, while a third school trace the dynasty direct from Śālivāhana, the founder of the era of A. D. 78. Lastly, there is the view of Venkayyah that the settlement should have been at the end of the third century. In any case the Pallavas, when they first appear in records and charters, occupy a position far more weighty, and a territory far more considerable, than that

which they possessed in the later days of their career. They had, for instance, seats of government in such distant places as Bādāmi (18), Vengy and Early Pallava territory. Conjæveram, the centres respectively of what were later on the Canarese, the Telugu and the Tamil languages and peoples. The possession of Vengy in the East coast and of Bādāmi in the West, right across the Peninsula, is an evidence, moreover, of the Pallava inheritance of the Andhra provinces of the South, while the occupation of the lands from the Krishna to the Palar was evidently an independent achievement of their enterprising arms. The lands which were in their possession, in other words, included those which were later on to be under the sway of the Chalukyas, western and eastern. It will be seen from this that, curiously enough, the history of the Pallava dynasty

(18) See *Ind. Ant.*, IX, 99, where Dr. Fleet publishes a Pallava inscription on a rock at Bādāmi.

begins with the history of an extensive region stretching practically from coast to coast and from the Kṛishṇa to the Pālār; but becomes, as time goes on, the history of a narrower region, in consequence of the separation of the Canarese and Telugu areas under different and independent lines of chiefs and kings. Apparently this loss is a sign of weakness, but in reality it is indicative of strength and prosperity. For, it removes the anomaly of a single government over peoples speaking different tongues and pursuing different habits, and of an incongruous union of what, nature, language and customs, in reality, separated. At the same time the loss of the West and North leads to the Pallava expansion in the South, in the lands of the Chōlas, Pāṇdyas and Chēras, so that it comes to include, in course of time, the whole Tamil land. The loss of the Canarese and Telugu areas was thus, as we shall see later on, a blessing in disguise.

It is difficult to say what the condition of South India was at the time when the Pallavas began their rule. From the valuable researches of the late Mr. Kanakasabhai Pillai we understand that a time of apparent inactivity had just followed a time of feverish activity in the three sister kingdoms of the south. The Chōlas, who had been ruled by Perunarkilli till A. D. 150, and who had exercised a sort of supremacy over their neighbours (as is evident from the presence of the Chēra and Pāṇdyan kings in the *Rājasūya yāga* which that king performed) seem to have experienced a check, the nature

Condition of South India at the time of Pallava Settlement.

of which is quite unknown, but which, it is certain, was effective enough to throw them into obscurity. The same fate had

overtaken the Pāṇdyas, the last of whose kings, Nanmāpau, had been the contemporary of Perunarkilli. Further west the Chēras, or rather the Koṅḡas, are indeed said by the *Kongudēs'arājākkal* (18a) to have been a prosperous people in this period; but it is doubtful whether we can accept its account as genuine. The last of their kings about whom we have any information, Perunj-Cheral-Irumporai, lived, according to Kanakasabhai Pillai, between 120 and 150 A. D. We are not told what happened after him, but we have reasons to believe that the country was conquered by the Gaṅgas, a tribe who occupied a large part of Mysore and the region dividing Koṅḡu from Mysore. Even the *Kongudēs'arājākkal*, with all its inaccuracy, seems to prove this. For, it says that in the first two centuries of the Christian era there were a succession of seven solar kings in Koṅḡu and that the last of these was succeeded in A. D. 178 by Koṅḡunivarma, the founder of a new dynasty called the Gaṅga. Dr. Fleet indeed throws (19) the whole account into disrepute and shows that Koṅḡuni-

(18a). This chronicle has been fully summarised in J. R. A. S. VIII, pp. 2-6 by Prof. Dowson, and translated by Rev. Taylor in M. J. L. S., XIV, (Jan.-June 1847). The MS. itself can be read in Taylor's *Rest, Mack, MSS.* Vol I, 5-47, in the Government Oriental MSS. Library. The epigraphical authorities for the dynasty are the Markara copper plates (*Ind. Ant.*, VII, 101-12), the Nāgamangalam plates (*Ibid.*, I, 381-6; II, 155; III, 152, 262; V, 139), and those published by Rice in M. J. L. S., 1878, p. 188. The whole subject can be thoroughly studied in Foulke's *Salem Manual*, Fleet's *Dynas, Cana. Dts.* Rice's *Mys. Gazr.*, I, Sewell's *Antiquities*, II, p. 189, *Rais Catal.*, III, 38-4.

(19) See *Dynas, Cana. Dts.*, pp. 11-14 where he shows that the Markara plates are forgeries and that, so far from being thrown back to the beginning of the Christian era, they lived in the 10th century. A brother of the 3rd king Harivarma, for example, gave a grant in 988.

varman could not have lived before the 10th century. But the doubtful wisdom of any dogmatic assertion on the question is shewn by the fact that the discovery of a Gaṅga record (20) at Penukonda in 1913-4 led to the revision of Dr. Fleet's opinion and carried the Gaṅga chronology, at one stroke, to the fifth century A. D. Indeed, Mr. Lewis Rice is of the opinion that the Gaṅgas were a power (21) as early as the second century. Their territory proper, the Gaṅgavāḍi 96000, he points out, was identical with the Southern and Eastern districts of that State and bordered the Koṅḡu country. They had, he further continues, for their earliest capital the well-known Kuvalāla or Kolar, but when their victorious arms soon encountered, with success, the valour of the Koṅḡu kings and established their supremacy over them, they transferred their seat of government to Skandapura, "which is supposed to have been at Gajalhatti, on the

The Kongu country. The Kongu country. Moṃār, near its junction with the Bhavāni," and west of the famous fort of Satyamaṅgalam. This account (22) is entirely in keeping with that of the *Kongudēs'arājākkal*, and though the latter is not always correct in its list of kings and its dates, there is no strong reason to dispute our dictum that the early Koṅḡu kings were overthrown by the Gaṅgas some time in the latter part of the 2nd, or the early decades of the 3rd, century,

(20) See J. R. A. S., Jan. 1915.

(21) See, for example, *Mysore Gazr.*, II, p. 223.

(22) *Salem Manual*. It may be pointed out here that Foulkes, on the whole, is supported by Rice. Much of Foulkes' chronological discussions is out of date and unsupported by inscriptions as Dr. Fleet shews; but while agreeing with the latter in regard to particular kings, we can believe that the Gaṅgas, as a tribe, were supreme over Kongu by the 2nd century A. D.

that is, just about the time when the Pallavas settled, according to Venkayyah, in the Tondamaṇḍalam country.

It will be seen from this that when the Pallavas found themselves at Conjeeveram they probably encountered two tribes or rather kingdoms to stem the tide of their progress. In the south, across the Pālār, in the lands now forming South Arcot, they must have met the Chōlas; and in the west, along the mountains which divide the uplands of Mysore from the coastal plain, they must have come into conflict with the Gaṅgas. Further north, in the districts which now form northern Mysore and southern Bombay, were another ruling race, the Kadambas. The situation of these Kadambas naturally made them formidable enemies of the Pallavas and we shall see later on that they were the first to attempt at throwing away their yoke, to seize Badami itself and to confine their adversaries to the eastern plain, —from the Gōdavari to the Pālār and from the sea inland to the slopes of the upper Karnāṭaka.

While this was the situation of the midland and the east of the peninsula, the west had been shaping its destiny in its own way. Kanakasabhai Pillai indeed shows, from contemporary literature, that Kēraḷa, like Koṅḡu, was subject to the Chēra kings; that Chēra and Kēraḷa were, in other words, identical in the first two centuries of the Christian era. But when the Chēra country proper came into the hands of the Gaṅgas at the end of the 2nd century, Kēraḷa seems to have been left to itself, its peoples and its rulers. An impenetrable darkness unfortunately pervades

the subsequent history of the land. The only chronicle purporting to deal with it, the *Kēralōt-patti* (23), is a veritable mass of absurd and incredible legends. Its lack of historic veracity is amply proved by the fact that it does not even mention the Chēra rulers who, Tamil literature tells us, were the suzerains of Malabar. It however gives us certain facts which, even if confused and perplexing, seem to state historic truths. It seems to show that, by the end of the 2nd century, the people of Malabar had become constituted into those classes and communities into which we see them divided later on. The conversion of the alien Brahmanical immigrants (21) into permanent colonists by regulations regarding their tuft of hair, the period of their boys' Samāvartana, the recitation of the Vēdas, the wearing of the Yagnōpavīta, the marriage of the eldest son alone, and the position of women, had probably become complete by this time. The Nāyars, identified by tradition with the indigenous Nāgas of the land, had come to assume their singular position of subordination, to the Brahmins and superiority to the rest of the Sūdras. The undisputed owners and rulers of the land, the Brahmins first tried an oligarchical government of a singular type. They rested it in "a sort of hierarchical Senate formed of the Brahmins of the 64 districts, into which they parcelled out the country; the land they rented to people of inferior castes, reserving to them-

(23) See *Res. Mack. MSS.*, Vol. I, pp. 345-427 for the original copy of this MS. It has been practically translated by Shungoony Menon in his *Hist. of Travancore* and fully utilized by Mr. Nagam Aiyar in his *Travancore Manual*. Full reference to it is also contained in Logan's *Malabar Manual*; *Madras Manual*, I, p. 128.

selves the right to property in the soil, and the management of public affairs. The defence of the whole or the use of weapons, was entrusted to ten divisions and a half, out of the 64, and the executive Government was confined to one individual, and a council of four others appointed (24) by the Brahmins of the 64 villages for three years each." Finding this a failure they "assembled and appointed a 'Protector' from each of the four villages selected, to hold office for three years and assign to each Protector one-sixth of all the land for the support of himself and his staff. This institution too did not work well and the people were oppressed by the Protectors, who sought to make the most of their opportunities during their short terms of office. So the Brahmins assembled at Tirunavoyy, resolved to appoint a king and empowered the four selected villages to choose a 'king.' Their first choice fell on 'Keya Perumal' of Kēyapuram in the country east of the Ghants. He was brought to Kēralam and installed as the first of the Perumāls in the year of the Kali Era, *Bhūman bhūpoyam prapya*, (25) corresponding to A.D. 216." Thus came into existence the celebrated dynasty of the Perumāls who, we are told, ruled the land till the 5th century. The Perumāls, we are further told, were sometimes scions of the Chōlā family and sometimes of the Pāṇḍyan. This appears to warrant the inference that their government was an alternative government of

(24) Wilson's *Descriptive Catalogue of Mack. MSS.* 1882, edn., p. 57. The *Madras Manual* (p. 128) says that the divisions of the country here detailed "were very probably anterior to the arrival of the Brahmins."

(25) See Nagam Aiyar's *Travancore State Manual*, I, 214-5. The tradition, says the *Madras Manual*, "indicates the domination of the original and more southerly Chēra kingdom, which appointed local governors or Permauls," (p. 128).

the Chōlās or the Pāṇḍyas, as the former or the latter were the masters, for the time being, of the land west of the Ghants. The arrangement seems to have been a sort of understanding between the Brahmins and the rulers of the east by which the latter were to send a military Governor and the former to retain "in consideration of their sacred character, and actual privileges, substantial influence in the internal administration of the Government."

Such was the political condition of South India at the time when the Pallavas settled in Tondamandalam. Everywhere there was dislocation and disorganization. The local kings seemed to have lost that wonderful energy, that wonderful activity, which had lent so much glory and so much halo to their reigns two or three generations previously. The whole peninsula presented an aspect of discord and of

exhaustion which afforded every temptation and every opportunity for the aggrandizement of a new, a younger, and a stronger power. The religious condition was equally chaotic and invited similar interference. The Buddhist and the Jain were in the palmy days of their greatness and spent their time and their labours in a keen and tumultuous competition. The Hindus were fast awakening and organizing themselves into aggressive and living sects which, while competing with one another for supremacy, combined together in their opposition to the heretic faiths and endeavoured to oust them by imbibing their spirit, adopting their principles, acknowledging their dogmas, and avoiding their evils. Adjustments and readjustments of views and religions in consequence went on in full swing, and while many things of old

were passing away, new ones were taking their place. A similar restlessness was seen in society. The Brahmins were regaining the position and the prestige they had lost in the throttling atmosphere of the Jain-Buddhistic activity, and society was reconstituting itself into castes and classes in accordance with Brahmanical ideals. The Vellālas and Pallis, the Kūḷas and Maravas, were settling to the positions which they were (26) to occupy later on and the various communities were organizing themselves into two grand parties, the champions or opponents of the Brahmanical organization and ideals, the right and left-hand castes. The relation between the Aryan and the Dravidian was becoming, in other words, definitely fixed, and society was undergoing an organization characterised by the structural details of a later age.

It was at such a crisis that the Pallavas became the masters of the whole country from coast to coast and from the Godavari to the Palar. We have unfortunately no materials which enable us to describe the careers of the early kings of the line. All that we, till very recently,

The early Kings. knew was that between (27)

A.D. 100 and 300, there were four kings of the names of Mādhava Varma, Kulakēṭana, Nīlakaṇṭha and Mākuntya Pallava; that the last of these was a promoter of Brahmanical colonization of the country and the builder of the celebrated Amarāvati tope and that after him, between 300 and 400 A.D., there were the five kings—Chandrarvarma, Vijaya Nandivarma, Vijaya Buddhavarma, Skandavarma, and Trilōchana Pallava.

(26) The whole question is discussed later on.

(27) *Madras Manual*, pp. 129-30.

—the last of whom was deprived of all his western possessions by Vijayāditya, the Chālukyan invader. The Prakrit grants, on the other hand, three of which have been thus far discovered (28), give a different list of five kings. The earliest of them, Bāppadēva, has been attributed by Mr. Vincent Smith to the middle of the second century A.D., and by Venkayyah to the end of the third century. The second of the line, S'ivaskandavarman, dubbed in one grant Yuvamahārāja and in another Mahārāja, was, we infer, the maker of Pallava greatness. The inscription represents him as a great conqueror, and as an orthodox Hindu who performed the sacrifices generally associated with victorious monarchs. The great success of his arms and the extensive nature of his kingdom are proved by the fact that he addressed his charter from Conjeeveram, the capital, to the Governor of distant Danakada (28a) or Amarāvati in the modern Gunter district. The charter, in other words, shews that, in the time of S'ivaskandavarman, the Pallava kingdom extended not only over the Tamil country of Tondamandalam in which the capital was situated, but also over the Telugu country as far as the Krishna. Extensive as it was, the kingdom seems to have been well organized for administrative purposes and divided into provinces, districts and minor divisions, as

28. One of these was discovered in the Krishna Dt. "The finding place of the other two is not known" (Venkayyah). Burnell attributes one of these inscriptions to the 4th century. (See *S. Ind. Paleography*, p. 185). See also Sewell's *Antiquities*, I, p. 211 and *Ind. Antq.* V, p. 175, where Fleet edits one of these inscriptions. The Pallavas are here referred to as belonging to the Sālavākāyana gōtra and not Bhāradvāja.

28a. See Beal's *Records*, II, p. 221, for the importance of this place and the history of research in connection with it. It will be seen later on that Hsien Tsiang notes its prominence and gives a detailed description of it.

the king's reference in his address to "lords of provinces, royal princes, generals, rulers of districts, custom-house officers, prefects of countries and others" amply testifies. As a sign of his 'universal dominance,' S'ivaskandavarman celebrated the As'vamedhayaga to which he added the less imposing Agnishtōma and Vajapēya sacrifices. S'ivaskandavarman seems to have been succeeded by the three kings referred to in the 3rd Prakrit grant. Nothing therein shows that they were his immediate successors, but from the similarity of the royal names and the character of the charters we can be almost sure of their immediate succession. These three kings were Vijaya Skandavarman, his son Vijaya Badavarman and his son Buddhayankura.

The value of the Prakrit charters lies not only in giving us the names of these early monarchs, but also in their enlightening us on the wise and enlightened administration of which they evidently laid the foundations. Endowed with the power of organization, they, as has been already mentioned, divided the kingdom into various administrative divisions or were wise enough to adopt those which had been already in existence. They seem to have had a well-organized system of finance also. S'ivaskandavarman, for instance, is said to have exempted the in-

habitants of a village "from taxes.....from the taking of sweet and sour milk, from troubles about salt and sugar, from forced labour, from the taxing of oxen in succession, from the taking of grass and wood, from the taking of vegetables and flowers." As Venkayyah observes, the special exemption of the people from the payment of these contributions to the State is an evidence of their

general existence. The inscriptions further imply the existence of a penal code and prescribe corporal punishment for those who broke the royal order. They further tell us that the spirit of administration was good. One of the kings, for instance, was wise and generous enough to encourage agriculturists by presenting as many as 100,000 ox-ploughs and to relieve the poor by charities amounting to 'crores.' There is no doubt that this is an exaggeration; but the mere fact of exaggeration is an evidence of the existence of such a policy. It shows moreover that the new conquerors evidently adopted the system of government already in vogue.

Nothing else is known about the kings of the Prakrit period. From what has been said it will perhaps be agreed that they ruled in the third and fourth centuries A.D. To the same period, but somewhat later, must be assigned the king of the name of Vishnugōpa who, according to the Allahabad (29) inscription of the famous conqueror Samudragupta, was ruling at Conjeeveram in the middle of the 4th century, and who was evidently vanquished by the great Gupta emperor. And it is equally certain that the kingdom of the Dakhan which Fa Hian refers to, was, as Foulkes says (30), the Pallava kingdom.

Fa Hian himself did not visit the country, but he gives an account of it, necessarily very brief and very defective, from hearsay (31).

(29) V. A. Smith's *Hist. Ind.*

(30) *Ind. Antq.*, VII.

(31) See Beal's *Buddhist Records of the Western World*, Introdn., LXVIII. An evidence which shews the unreliable nature of the report on which Fa Hian based his account, may be seen in his mention of people who could fly! He narrates a story according to which the inhabitants of a village expressed wonder at the fact that the Buddhist pilgrims who frequented the Dakhan did not fly, while all the other religious people thereabouts were able to do so, and that the Buddhists explained the deficiency on the ground that their wings were not yet perfectly formed!!

The government, according to him, was not efficient enough to safeguard the security of person and property. He considers the country to be precipitous and the roads dangerous. Fa Hian's contemporary description of the Dakhan country "Those who wish to go there," he says, "even if

they know the place, ought to give a present to the king of the country, either money or goods. The king then deputed certain men to accompany them as guides, and so they pass the travellers from one place to another, each party pointing out their own roads and intricate by-paths." This description might have been true, of the northern-most part of the Andra territory, but probably not of the interior parts. In regard to religion the traveller makes us believe that the religion of the Buddha was still vigorous enough, though its old prosperity had perhaps to a large extent vanished. A remarkable monastery he describes is singularly informing. It was a Sanghārāma of the former Buddha Kāsyapa and constructed out of a rock, hollowed to the proper shape. "The building has altogether five stages. The lowest is made with elephant figures, and has 500 stone cells in it. The second is made with lion shapes, and has 400 chambers. The third is made with horse shapes, and has 300 chambers. The fourth is made with ox-shapes, and has 200 chambers. The fifth is made with dove shapes, and has 100 chambers in it. At the very top of all is a spring of water, which, flowing in a stream before the rooms, encircles each tier, and so, running in a circuitous course, last arrives at the very lowest stage of all, where, flowing past the chambers, it finally issues through the door. Throughout the consecutive tiers, in various parts of the building, windows have been pierced

through solid rock for the admission of light, so that every chamber is quite illuminated and there is no darkness. At the four corners of this edifice they have hewn out the rock into steps, as means for ascending." Fa Hian notes a remarkable fact about the mendicants who occupied it, and that is that they were of small stature and ascended the ladder and reached the top in the usual way unlike the tall men of old who reached it with one foot! The whole building was called *Poloyu*, an Indian word signifying 'pigeon' and ever full of Arhats. But that its influence on the population was not very great is evident from the fact that, not far off from it, were villages inhabited by heretics who had no religion of their own and who knew nothing of the land of the Buddha or Sramanas or Brahmanas.

We now come to the second period of Pallava history, the period of Sanskrit charters, and the next section is devoted to it.

V. RAMACHARIAR.

A meeting of the Senate of the University of Madras will be held on Friday, March 3, at 4-30 P.M. The following subjects will be brought up for consideration:—Appointment and duties of University Professors, Dravidian Philology, Division at meetings, The L. T. Degree Examination, Ordinary University Lectures, Law Examinations, Senate meetings, Election of the Syndicate, work of University Professor of Philology, Special University Lectures, further study in Colleges, and a new Faculty of Science.

SLAVES TO SPELLING?

WHENEVER the thorny question of English Spelling rises to my mind, a quatrain from Edward FitzGerald's *Omar Khayyam* haunts me like a weird tune heard in the mad dance of a midsummer-night's dream. It runs as follows:

Oh, Thou, who didst with Pitfall and with Gin
Beset the path I was to wander in,
Thou wilt not with Predestination round
Enmesh me and impute my Fall to Sin?

But is this not exactly what English Orthography does? Does it not beset our path "with Pitfall and with Gin" and attribute our "Fall to Sin?" Does it not set night-lines for the unwary pounders and very often catch five-pounders—not to say fifty-pounders? The truth seems to be that English Spelling is no respecter of persons. It makes the high and the low, the young and the old, the weak and the strong, the crowned king, the mitred bishop, the lordly noble and the lowly labourer bow before it and acknowledge its world-wide supremacy. In an age which boasts of "Reason," it perpetrates and perpetuates unreason. In a land of democracy, it rules with all the rigour of an autocrat, only combined with all the savageness and frightfulness of *Kultur*. In "the home of the free," it stands as a menace to the long-cherished liberty, as much as, if not more than, the "militarism of Central Europe." It has, in fact, forged fetters for the "sons of sires that baffled crowned and mitred tyranny"—fetters not infrequently invented by foreign scribes and false philologists and riveted by ignorant type-setters and plodding dictionary-makers. If the freedom-loving peers who fought for and won for their sons and daughters Magna Charta, the Great Charter, could hear what

shackles have been, in the name of culture, forged in the last two centuries, would they not turn in their graves? Will not the British people, then, who have so ruthlessly fought against and banished slave-trade from their Empire, rise against this slavery within their very kingdom and show to the world, as indeed they do show in the battlefields of Europe, that

"the folk of the Ocean
Are free as the waves?"

Will they not also bear in mind that this war is as much an empire-war as the war which began in August 1914? Signs are not wanting, however, to indicate that the mighty conflagration in Europe will burn down more tyrannical edifices than many people can think of.

That English Spelling is quite a wandering "maze without a plan," with ambushes laid at every step, has never been gainsaid. A few instances, however, of the traps set with a cunning device not unworthy of the arch-fiend, may be ventured. Consider the following list of words, which though by no means exhaustive can show with sufficient clearness how English spelling is a veritable "hell let loose." Good, food, brooch, flood; plaister, plaid, paid, said; glove, stove; sew, sow (verb), sow (feminine of boar); hurry, bury, busy, hurrah; fate, ate; barge, targe, target; once, only, nonce; lays, says. The list can easily be extended indefinitely. Consider again how very common words like of, often, quite, quiet, sponge, museum, alien, was, is, as, has, women, waistcoat, quinine, business, cook, Wednesday, lieutenant, quay, choir, Thomas and smooth are very often mispronounced. The perfectly innocent-looking letter *a* has at least eight different

values, as may be seen from the following nonsense-sentence:

There was rarely, if at all, any lazy lad in the class.

The more innocent-looking letter *o* has at least nine different values:

The shortest of the women working near the tomb brought down two old wolves at one shot.

As for *oo* and *ou*:

The foolish brooch fell on the floor of the blood-stained room,

And

'Pour some of your sour soup', shouted the young soul!

The monstrous *ough's*, however, refuse to be so brought together into a sentence however nonsense it may be, but we shall take the following for want of a better one:

Hough fought a tough fight against hiccough, though he could not reach through the boughs the trough of hough (wine).

Reversing our process, we find, for instance, that the sound *u*: (the long vowel sound in food) is expressed in at least fourteen different ways:

A shrewd fellow of the rude group, who through rheumatism was in no mood to join in the manœuvre, loosened a blue canoe and crossing the sluice moved on to find out the truth for himself.

The * *æ* sound (the vowel sound in man) tells us of:

The salmon who guaranteed to have all lads in plaid well threshed.

The *a*:-sound (the first, long vowel sound in father) will cry:

Hurrah to the artless aunt of the heartless clerk, who asked the bazaar-man for a balm and a plaister!

* *æ* = *ae* (diagraph)

Not to be nauseated anymore by these nonsense sentences, we may put the whole matter in a nut-shell by pointing out that in English we have the curious phenomenon of twenty vowel-sounds (including the diphthongs) being represented in at least two hundred and ten different ways; and further that we have a similarly wonderful phenomenon of twenty-four consonant sounds (including the compound sounds ordinarily represented as *ch* and *j*) being represented in at least a hundred and eighty different ways. And summing up the results, forty-four sounds (made out of thirty-seven simple sounds) are represented in the current spelling in not less than three hundred and ninety different ways, the average working out to nine ways of representing each sound. We may cry out, "Monstrous! Prodigious!" but there is the cruel fact staring at our face. No wonder, therefore, that it has been computed that not less than a year of the English child's school life is wasted in this drill in unreason. And if this is the case with the English child, what shall we say of the waste of time in the case of a child whose mother-tongue is not English?

Very often the reformers are asked the question: "What can poor India do in the matter of English Spelling Reform? The reform should come to us as a settled fact and then we will surely accept it. It must come from the top,"—whatever the last sentence may mean! To this question there can be but one answer and a very brief one, too: *England's war* (both literally and metaphorically) is *our war*! India may be for the present labouring under certain disadvantages and disabilities, but, to borrow our poet-laureate's words, "through fire, air and

water" her sins of past ages will be cleansed and when the dawn of peace comes, she will be found to have walked considerably towards "Salvation," towards "Beauty, through blood." Her fair name will be written not merely in the History of England, but in the everlasting Book of Truth. Meanwhile it is the duty of every Indian, whatever disabilities he may be for the present labouring under, to stand by England, shoulder to shoulder, and fight for Truth and Light—in all their aspects.

It is true that in this hour of storm and stress no body will immediately turn to the reform of English Spelling. But it is well to remember that the reformers are fighting a fight, not the least important because it is not fought in Flanders or in the Balkan Peninsula. And when the day of settlement comes, their victory should be as decisive and complete as the victory of the Allies. Just now the Simplified Spelling Society is collecting signatures for the following petition which will speak for itself:—

To

The Rt. Hon. The Prime Minister.

The Humble Petition of the undersigned Teachers and others interested in education
SHEWETH AS FOLLOWS:—

(1) The irregularities and inconsistencies of English Spelling involve a deplorable waste of time and mental energy in education, without any compensating gain;

(2) No philologist or student of language of any eminence is opposed to the more or less complete removal of these anomalies, and many are strongly in favour of reform;

(3) The adoption of a rational spelling, by removing a serious hindrance to the spread

"INSCRIPTIONS AS ORIGINAL SOURCES FOR TEACHING INDIAN HISTORY."

of English within the British Empire and as a world-language, would be productive of great intellectual and commercial advantage.

Your Petitioners therefore earnestly pray that you will be pleased to advise His Majesty to appoint a Commission, which should include scholars, teachers, men of letters, and men of business, to consider the whole question, to report whether reform be practicable, and, if so, to indicate what ought to be its nature, and how it may best be introduced.

* * * *

Be it noted that the signatories do not commit themselves to any particular scheme of reform, but that they merely ask for a reform. Members of the Simplified Spelling Society and all those who are in sympathy with the movement are urged to apply for a free supply of the petition forms—and also of S. S. S. literature—to the Honorary Secretary, Simplified Spelling Society (South Indian Branch), Govt. College, Mangalore. It is to be devoutly wished that the present poet-laureate would soon publish a companion poem to his *August, 1914*, beginning perhaps with the following stanza.

Thou careless, awake!
Thou Reformer, fight!
Stand, England, for freedom
And God guard the Right!

T. A. RAMAIA.

MUCH, but not overmuch, has been written of late about our present unsatisfactory mode of teaching Indian History in High Schools, and various suggestions have been made with a view to removing the defects. But very little seems yet to have been done towards effecting a real improvement, so as to make its study less neglected and more interesting. It seems to be generally accepted that it is profitable, if not essential, to introduce in our schools the study of what are known as original sources to explain and elucidate the text-book. With this view several essays have appeared from time to time in this journal and elsewhere attempting to point out the value of these sources, and also to indicate how the different classes of these materials may be made use of for the benefit of the student. A similar attempt will be made in the present article with the same object, but so restricted in its aim as to take note only of the immense mass of inscriptions brought to light by the labours of the Archaeological Department in British India as well as in some of the Native States. Nothing is indeed more striking to the antiquarian than the abundance of inscriptions in this country which, though not avowedly historical in purpose, are yet of incalculable value to the historian. Epigraphy is the firm bed-rock upon which all historical research relating to ancient India has to take its stand. It is the ultimate authority which alone controls and regulates the contribution of other recognised sources to historical knowledge. The problems connected with the study of Indian Epigraphy are varied and numerous

and give rise to an irreconcilable variety of opinions among specialists. Nevertheless translations of carefully selected inscriptions can be made to serve the simple ends of the school room and to tell their tales to the juvenile student in a direct and impressive manner. We shall here specify and illustrate a few of the lessons which they can be made to impart, if they are only skilfully presented.

(a) First and foremost the geographical value of inscriptions needs to be thoroughly understood. The historical maps drawn by the student will be more accurate and less wayward in point of topography, if he is acquainted with the inscriptional basis for the correct identification of ancient sites. Many incorrect conjectures held the field before the evidence of inscriptions could be drawn upon to determine the exact sites of such historic cities as Sagala, Tagara and the unnamed capital of ancient Kalinga. But we do not intend to suggest that an examination of these questions should be introduced into the school curriculum of Indian historical study. All that is proposed is that in locating ancient towns and cities in the outline map of India the teacher may acquaint the student, wherever possible, with the authority for each location. To cite only a few well-known instances closely connected with Buddhist tradition; Asoka's Rummendei pillar inscription* discloses the exact spot of Buddha's birth, the famous Lumbini garden; the Piprawa vase inscription locates Kapilavastu, the paternal home of the great Teacher; the Kasia clay seals appear to mark the site of Kusinara, where Buddha died and was cremated; and the Set-Mahet inscription seems to give conclusive evidence as to the

position of the ancient city of Sravasti, renowned in Buddhist church history.

(b) A few inscriptions on stone and copper-plate contain succession lists of powerful royal dynasties, and these lists may appropriately form the starting point of a study of their history, each additional item of correction and amplification being referred to its authority. Such are the genealogies furnished by the Large Leyden Grant for the Cholas, by the Vakkeleri or Salliyur plates for the Chalukyas of Vatapi, and by the Vallimalai inscription for the Western Gangas. This method of study has the inestimable advantage of introducing the student to the exact manner in which the historian sets about his work of constructing a finished narrative from a confusing heap of records of all kinds. But it is obvious that the exigencies of school-work, the imperative duty of "doing the whole portion" will not allow of such a detailed scheme of study, unless the class is merely content with preparing one or more special periods.

(c) Yet another way of turning inscriptions to account in the class-room is as corroboration of information for which the primary authority is tradition. In this way the student would be introduced simultaneously to two of the most abundant classes of original sources, in such a manner that he would readily perceive their relative importance as historical material. For instance: the Dipavamsa records the despatch of a Buddhist mission, comprising 5 bhikshus, to the Himalayan regions, in the time of Asoka Maurya, differing from the Mahavamsa in one particular regarding the name of the leader of the mission. Now we find that certain names inscribed on a few relic-vases discovered in

two stupas at and near Sanchi not only establish the historicity of the mission, but confirm in a most unexpected manner the version of the Dipavamsa as against that of the later chronicle in the sole point of disagreement between them. [It must here be pointed out that Mr. V. A. Smith considers the Moggaliputta Tissa of the chronicles to be identical with Upagupta, the preceptor of Asoka, and to have no connection with the Mogaliputta of one of the Sanchi relic caskets, which latter identification is however accepted by Dr. Fleet and Prof. Rhys Davids.] Another example is furnished by an epitaph of a Jain teacher inscribed on the Chandragiri hill in Mysore which commemorates the migration of the Digambaras to Southern India at some remote period, thus confirming the testimony of Jain literary tradition. [In this connection it may be stated that Mr. Rice and Dr. Fleet are at variance regarding the allied question of the abdication of Chandragupta Maurya and his retirement to Sravana Belgola after adopting the robes of a Jain monk. In support of the tradition, Mr. Rice adduces epigraphic authority, which is however called in question by Dr. Fleet. [Mr. V. A. Smith, who discarded the legend as unhistorical in the two earlier editions of his work, has changed his view in the third and the latest, definitely accepting Mr. Rice's position.]

(d) There are a few inscriptions which are plainly historical in purpose, having been incised with the principal object of leaving a record of some noteworthy event or an illustrious reign. To the former class belong the magniloquent eulogy of Yasodharman inscribed on two pillars of victory at Mandasor, the Mehrauli pillar inscription and the

supplementary record on the Atakur stone. The first of these is important only as mentioning the crushing defeat sustained by Mihiragula at the hands of the central Indian power, a fact which obtains confirmation from the testimony of Hiouen T'sang, though the record as a whole must be dismissed as the extravagant boasts of a local chieftain, having but a slender basis in fact. The second is a short charming poem which briefly alludes to the conquest of Vanga and the Vahlika country by the Emperor Chandra, who has been identified on sufficient grounds with the second Gupta King of that name.* [In the third edition of the 'Early History of India' Mr. V. A. Smith has given up this identification in favour of another by M. M. H. P. Sastri, who identifies him with an earlier king of a merely local dynasty.] Apart from the inscription, the pillar itself, which is of iron, is highly interesting as furnishing indubitable evidence of the remarkable advance made by the ancient Hindus in metallurgy as early as the 5th century A.D. The third and last attests to an act of treachery committed by a Western Ganga prince, who murdered a Chola King in the act of embracing him, when the Chola and the Rashtrakuta forces stood facing each other in the field of battle. The Hathigumpha cave inscription of King Kharavela of Kalinga, and the Allahabad pillar inscription of Samudragupta are on the other hand detailed records of a number of years extending over a great part of the reigns of these monarchs. Considering that Indian tradition is remarkably silent regarding the greatest conqueror known to Ancient

* Vide J. R. A. S., 1897, p. 1. and "The Indian Review," March, 1914.

India, and does not even so much as preserve his name so shall be able to recognise truly the real value of the archaeological authority for his reign. Harisena's poetical eulogy of his royal patron may well form the text of the class-lesson on Samudragupta.

(e) If it be true that the history of a nation is not merely the connected account of the political transactions of the rulers—the rise and fall of dynasties and military triumphs and disasters—but must also reveal the life of the people in all its numerous aspects, social, economic and political, the teaching of Indian history in our schools has yet to adapt itself to this truer and larger conception of historical study. Our boys now read of little else than the restless ambitions of countless monarchs, great and small, with all the fateful consequences thereby engendered. When they think of ancient India, they only imagine a vast stage on which a few mighty men trod with giant strides; and the great mass of humanity which is the real maker of history counts for little in their calculations. Yet the fault is not the student's, nor even entirely the teacher's, who, as he is at present circumstanced, cannot, even if he have the inclination, undertake historical research on an extensive scale. The most pressing need of the hour is that there should appear among us a Green to write an authoritative and comprehensive history of the Indian peoples. Meanwhile our teachers will do well to extend their historical outlook and recognise that it is germane to their work to concern themselves with such questions as the price of food, the rate of interest, the means of communication, the sources and incidence of taxation, the administration of temple funds, the deliberations

of the village assembly and others more intimately connected with the welfare of the nation than annexations of territory or even foreign invasions. In the numerous volumes published by the Archaeological Department will be found a large number of inscriptions which throw a flood of light on these matters. An inscription at Virinchipuram,† for example, lifts the veil of oblivion over the past for one brief moment, and gives us a glimpse—what an interesting glimpse it is!—into the social life of a Brāhmin community. It shows the prevalence of the evil of *Kanyasulkam* among them and their invocation of State aid in suppressing it. Another inscription at Kittur furnishes an important record of a trial by ordeal in a dispute between two priests. A series of inscriptions at Ukkal gives a clear account, complete in all details of village administration, of local self-government in the Chola Empire. There are others which give an interesting insight into the administration of criminal law in the twelfth century and which also appear to recognise a system of trial by jury. A large number of inscriptions deal with the activities of guilds, corporations and other local bodies which played a very prominent part in the national life. That documents of the kind described above may be used with profit in the class-room is proved by the inclusion of Nos. 11, 28, 36 and 47 in Mr. Colby's well-known publication.

We shall next turn our attention to one unique historical document, in the class of inscriptions, for which in point of interest and importance it is hardly possible to find an equal. By themselves, the Edicts of

† Vide S. K. Aiyangar's "Social Legislation under Hindu Governments."

Asoka present a fascinating portrait of a monarch who knew no other luxury than that of doing good to his subjects, and who "did his days in imperishable stone." A transcript of any complete recension of the edicts together with their translation into English must be placed in the hands of every student, and he must be invited to study the document with care and discover for himself Asoka's conception of the Dhamma, the lofty ideals of the royal evangelist and the measures he adopted to achieve his object. The 7th Pillar Edict is a very valuable inscription, and is, in a sense, the most important of the whole series, as it contains a succinct summary in his own words of his religious policy. A mere study of the edicts will enable the student to draw several conclusions of a simple, but by no means unimportant character. He will readily infer the extent of Asoka's empire, by considering the limits of distribution of the Asokan edicts of all classes—Rock, Pillar and Cave. Mr. R. E. XIII. will initiate him into the mysteries of ancient Indian chronology. The language of the inscriptions and the varieties of script employed are full of suggestions to the inquiring mind. The student may also be asked to test the truth of several Buddhist monkish traditions regarding Asoka in the light of the evidence afforded by the edicts. Finally no amount of lecturing or text-book explanation can offer the same direct revelation of the supremely interesting personality of the monarch, who declared in ever memorable words that all his endeavours had the one object of rendering his subjects as happy as possible here below and of showing them the way to obtain happiness hereafter in heaven. It is not this pious declara-

tion that is remarkable in itself, but the strenuous exertion with which he worked all his life to realise his noble ideal, and of which his numerous records on stone are so many eloquent witnesses.

"Numerous particulars of the civil and ecclesiastical organisation of the Empire are revealed by close examination of the Asoka inscriptions" (V. A. Smith); and it may not be irrelevant to, briefly summarise in this place the historical facts to be gleaned from them. They constitute so many records of the indefatigable efforts of the Emperor to impose the religion of Gautama upon his subjects, having been written, as he avows, "for the welfare and happiness of mankind, with the intent that they, giving up their old courses, might attain growth in piety." (Pillar Edict, VI). In this endeavour Asoka trusted mainly to exhortation and his personal example to effect his object. The primary interest of the inscriptions is thus religious and evangelical and their political importance is only secondary. The subject matter of these documents divides itself into three well-defined directions of royal activity intended to procure great spiritual benefit to the King and his subjects. The first of these comprises the sinful practices forsworn by Asoka and the pious deeds performed by him that he might work out his own salvation and that his example might be followed by the people at large. To this class belong his resolution to wage no war after the thirteenth year of his reign (Rock Edict, XIII), his abolition of the royal hunt, which had been the great delight of his ancestors, and the substitution of "tours of piety" in its place (R. E., VIII), the prohibition of animal slaughter for the royal kitchen (P. E., I), the provision of

medical aid for man and beast (R. E., II), and the special attention paid to the comfort of travellers (R. E., VII). The second division is particularly concerned with the propagandist work of the Emperor, and comprises in the main of the sending out of a number of missionaries to foreign countries (R. E., XIII), the creation of an imperial ecclesiastical department, independent of the civil bureaucracy and exercising jurisdiction over three classes of ecclesiastics, viz., the diocesan, the endowment-holder and the missionary (R. E., V), and the organisation of quinquennial circuits of subordinate officers for the promulgation of the Buddhist doctrine (R. E., III). Asoka himself played the role of a preacher in his inscriptions, inculcating the three cardinal virtues of truthfulness, kindness to animals and reverence to parents, teachers and elders, and explaining at length his views on True Ceremonial, True Glory, True Charity, True Conquest and the need for self-examination (R. E., IX, X, XI and XIII and P. E., III). He further exhorted his people to lead lives of "Right Exertion" and commended to their earnest attention some select passages from the canonical scriptures, as being of especial merit (The Bhabra Edict). In spite of the lofty ideal of tolerance which he preached, Asoka was not content with these measures of persuasion, but proceeded to drive the thin end of the wedge into the prevalent Brahmanical religion by issuing a number of ordinances penalising the slaughter of animals and cruelty towards them (P. E., V). While the general spirit underlying these "pious regulations," as he called them, was no less acceptable to the Brahmanical than to the Buddhist system, their particular enforcement, which was the thing

Asoka specially had in mind, was intended to lay the axe at the root of the former. The interdiction in the same breath of animal sacrifices and "duelling *samajas*," as opposed to non-duelling ones or "single-performer chows (Mr. K. P. Jayaswal's rendering of "*ekatya samaja*" in R. E., I), while it was calculated to remove all suspicion of persecution and disarm opposition to the King's policy, placed the hated sacrificers under the ban of the law. Still more vexatious must have been the attempts of the restless monarch to restrain the freedom of the individuals composing the royal household, in the matter of private morals and almsgiving, by the appointment of two classes of officers (P. E., VII), viz., the Censors or Superintendents of morals, working in conjunction with the Censors of the women (R. E., XII), and the Almoners or directors of charity.

Incidentally the inscriptions also afford valuable information regarding the administrative machinery of the Mauryan Empire, when it was at its greatest extent. The whole kingdom was divided into a number of provinces, of which there were probably four (the Kalinga Provincials' edict and the Brahmagiri text of Minor Rock Edict, I), the eastern division or the home province being governed by the Central Government from the imperial capital, and the outlying ones being placed under the charge of provincial Viceroys, who appear to have been princes of the blood royal, and with whom were perhaps associated ministerial councils, similar to the one at Pataliputra. The central region was probably co-extensive, as Mr. Vincent Smith supposes, with the area of distribution of the inscribed pillars. The general administration was in the hands of a bureaucracy con-

trolled by an imperial council or "*Parishad of Mahamatras*" (R. E. III). There were two classes of officers, superior and subordinate, styled respectively *Mahamatras* and *Yuktas*. The former were officers of the highest rank and appear to have comprised the various heads of departments at the imperial and provincial capitals, who composed the different councils, as well as administrators of remote frontier provinces, known as "*Anta Mahamatras*" (P. E. I), who had naturally to be men of great ability and experience. The *Yuktas* comprised the two classes of local officers, *Rajukas* and *Pradesikas* (R. E. III), about whose functions there exists some difference of opinion. Mr. Vincent Smith considers them to have been executive officers corresponding to the present day Collectors and Commissioners in British India, while Mr. Jayaswal holds the opinion, which he comes to by a reference to the *Artha-Sastra*, that they were judicial officers, *Pradesikas* being Subordinate Magistrates, and *Rajukas* "a class of Judges, who entertained both civil and criminal cases." In the capital cities, and perhaps also in all other principal towns in the Empire, there were special judicial officers, known as *Nagara-vyavaharikas*, who administered justice to the townsmen (the Kalinga Provincials' edict). So anxious was the king that these officers should not abuse their powers, and so eager that they should temper justice with mercy, that he appointed circuiting commissions, once in five years, to induce the city-judges to discharge their duties agreeably to the king's will. A most important branch of the public service was composed of a numerous class of *Prativedakas*, who were a host of royal agents, newswriters or spies. R. E. VI contains a reference to reporters,

that were stationed in the imperial capital itself. Others were scattered throughout the length and breadth of the extensive empire, being charged with the work of reporting to the King every noteworthy occurrence in the provinces, and in this way they must have formed an effective check on the insubordination or autocracy of local authorities. Asoka at first attempted to make use of the ordinary administrative machinery of the realm as a propaganda for the faith he had embraced, but met with unexpected resistance. He hoped at least to force them into silent acquiescence of his policy, even if he could not secure their sympathetic co-operation. But the large body of his officers showed no courtier-like readiness to follow the royal example or even to carry out his orders in religious matters. Rock Edict III informs us that the King required the imperial council and the subordinate officers under its direction to promote the missionary work, which he was organising; in addition to their ordinary duties. But we learn from the VI Edict that the council adopted a strongly hostile attitude towards these proceedings, and even made bold to raise objections to the King's lavish prodigality towards members of the Buddhist church. This state of frequent disagreement between the King and his ministers must have continued for some time, before the former was driven to the necessity of creating, as already stated, a special ecclesiastical department, whose extensive powers are enumerated in Rock Edict V.*

It is apparent that to adopt in any degree the suggestion made in this article would require a much larger expenditure on the

* The foregoing sketch is based upon Mr. K. P. Jayaswal's translation of the first seven rock-edicts, and Mr. V. A. Smith's translation of the rest.

historical section of the school library than is at present incurred. The library would have to be furnished with the countless publications of the Govt. Epi. Dept., that are yearly increasing in number, and also with the special journals dealing with Indian historical research like the *J. R. A. S.* and the *Ind. Ant.* This additional outlay must however be no cause for discontent, as History has hitherto been incomparably the least expensive of all branches of study. Secondly our Indian History teachers must strive to be scholars in their own subject. I desire not to be misunderstood as making any complaint against the present-day teacher; I only deprecate the tendency to entrust Indian History to any available person, even if he had no previous acquaintance with the subject. Thirdly there must be a readjustment of the school curriculum. In the two lower forms of the High School a complete course of the subject must be finished, and in the highest form only a special period must be chosen for detailed study. The position which Indian History occupies in the S. S. L. C. scheme is, in one respect, a cause for unmingled satisfaction. Relieved of the untended attention of the Edu. Dep., the school management is at liberty to organise its study with sole reference to the needs of the country. In view of the University's attitude towards the subject, which is one of cold neglect, the authorities of our schools, at least such as are not in missionary hands, must feel glad that it is in their power to shoulder, to a slight extent, the burden so ignobly discarded by others, and to attempt at least a partial remedy of the situation. A great call is made on their patriotism, and, we may feel sure, the call will not be unheeded.

N. KALYANASUNDARAM.

A UNIVERSITY FOR MYSORE

SO far the discussions which have appeared in the Press on the above subject may be grouped under two heads:—(i) Those referring to the linguistic character of the University and (2) those relating to the necessity or otherwise for founding one. The suggestion of a Vernacular University is not within measurable distance of realisation, for the advocacy of vernaculars as the chief media of instruction in all our academic organisations involves political issues of far-reaching consequence. A purely Vernacular University without a *Vernacular Government* is hard to conceive, let alone other considerations whether for instance whether the Dravidian group of languages in their present stage of evolution can be used as an instrument for the imparting of scientific and technological instruction; and, if supposing they are adapted immediately, whether they have the genius to give that impulse to original investigation in the different branches of knowledge; and, if assuming such investigations are possible, at least in the humanistic departments, how far the vernacular researches will influence the course of, or derive inspiration from, contemporary methods. But all are agreed that the movement must tend in the direction of ultimately adopting the vernaculars as the chief language of our Universities, Government Courts, business concerns, and the Press. And the only demand, that can be made at present in any new foundation, seems to be to ask for equal claims for Oriental learning with the Western languages, and allow, with the necessary safeguards, the principle of the survival of the fittest to operate as in the organic world.

From the view point of a certain section of

critics, a University for Mysore is all too premature and in their opinion the founding of one will make the educational edifice so top-heavy that it will, after completion, collapse like a house of cards. Arguments based on comparative statistics of educational progress are not likely to convince them; but it may be asked, what was the educational progress made by the three Presidency towns at the time the three older Universities were established? And what is it that has been responsible for the amount of literacy that exists in the land at present? Is a University to be the culminating stage of educational activities or is it the stimulating agent for the diffusion of enlightenment? If the Presidency Universities which began almost with the beginning of education in India, have promoted directly the advancement of elementary, secondary and collegiate education in the other provinces, could it be maintained that the Mysore University would discover a perversity to produce the opposite process? If in 1857 Madras or Bombay or Calcutta had made out a claim to demand a University, the case on behalf of Mysore in 1916 is unimpeachably strong. There does not seem to be much logic in the argument that the University must wait till a certain stage of educational progress is attained, which by the way, has not been clearly defined by any critic. On the other hand if faith is developed in the teaching of the past, we have to admit that a University is bound to help the course of progress of both secondary and elementary education in Mysore. All talk about lowering the standards of education in the University is beside the mark, for the task of preparing the courses of studies must naturally be entrusted to the Boards and the Syndicate and whatever may be the motives

of Government, they need not be allowed to influence the judgments of the University and the college authorities. A University is going to be what the Professors are going to make it and in an academic corporation endowed with a certain amount of autonomy, the chief interest of Government will be merely financial.

I should therefore suppose that no special pleading is necessary on behalf of a University for Mysore with English as the chief medium of instruction in all the scientific, humanistic and technological branches of studies, with Oriental learning on a position of equality with the purely formal studies of Western languages. As the entire scheme is still in the confidential stage, nothing more need be attempted here, than to indicate in broad outlines the principal features of the type of the proposed University, such as may occur to any intelligent person.

The Indian Universities are not rotten bodies as some critics would have us believe, they have done immense service in the past for the spread of sound education and under the impulse of the University Act of 1904, all of them have opened a new chapter, in their activities. Perhaps they are too vast in their structure, and too complex in their interests to admit of educational suppleness. These functions have been limited to the setting up of certain standards for the various examinations, prescribing courses of studies and permitting or refusing to permit a college to submit its pupils to the University tests. The result has been to make the colleges independent units devoting much of their time in the preparation of material for periodical University examinations. The chief defects of

such an organisation are that the colleges are encouraged to give only superficial training in their attempts to pursue rather an ambitious curriculum, and apart from the University they could undertake no initiative to co-ordinate the higher collegiate work. The University as it is too busy in tabulating, with a sanctimonious subtlety, the standards of knowledge presented by the candidates, is not left much time to think of initiating new literary or scientific pursuits. The public could hardly appreciate the difference between Collegiate and University education. In India there is only Collegiate education, and the University has only assumed the task of issuing a College-Leaving Certificate which it has designated by the title of Diploma. Naturally therefore all the recent University movements in India have been directed towards securing the more distinguishing marks of a teaching University to their foundations and the superior qualities of a true University education for their alumni. In constructing a scheme for Mysore, one can refer to the older types on the one hand and on the other to the new models proposed for the various provinces in Northern India.

Almost every year a large body of young men leave the State for other Presidency towns chiefly owing to the incompleteness of studies adopted in the 1st Grade State Colleges and if after graduation they do not come back, the State is annually losing a portion of the youth of the country. A University, if organised on modern principles, will prevent this efflux by offering adequate inducements to the student population. Then we should have a sufficient number of young men trained in the best and most up-to-date methods of

higher instruction always available to meet the growing demands of the State.

It is realised that a University has not only to direct and control higher education but also share in it, and concern itself with the social and physical welfare of its students and in certain departments of knowledge initiate original enquiries. In determining a type most suitable for Mysore, we have to bear in mind the stage of educational progress reached in the Province and our obligations to the past. It is however, certain that we cannot have a completely centralised University like Cambridge or Oxford, although the advantage of such concentration every one will readily admit. Perhaps as a measure that will provoke minimum opposition, one may suggest the founding of a Residential type of University in Mysore with the College in Bangalore affiliated to it.

A proposal such as this would appear to make the new University partake the objectionable features of an older type of examining University, but a scheme can be developed by which it may become possessed of functions and responsibilities of the Residential type. It must embrace within its activities several departments of study in the lower courses, for instance, agricultural, commercial, engineering courses for which the State has only provided schools, besides providing for post-graduate studies in arts and sciences. Through the colleges the University must exercise its influence over secondary education and thus establish a close relation between the two grades which now under the S. S. L. C. Scheme stand divided. To enable the University to exercise its control most efficiently over secondary education, without allowing the examination

to dominate the school work, the S. S. L. C. Examination must be abolished and the old Matriculation, with such modifications as will bring it in line with the spirit of reform, should be revived. The reason for such a proposal is mainly to enable the University to lay down the standard of knowledge in the candidates aspiring for a University education and at the same time to secure a proper sifting without introducing any of the anomalies of the S. S. L. C. system. The experience of College Professors in recent years is that they have found it somewhat difficult to find themselves in substantial agreement with the S. S. L. C. Board of Examiners who annually declare a certain percentage of candidates as fit to enter upon a course of collegiate education. To what results such disagreement has led must be apparent to every one who is watching, perhaps with painful interest, the recent educational developments in the neighbouring province. The chief departments of the University at the stage of inception would perhaps comprise scientific and humanistic branches including teaching concentrated in Bangalore and Mysore respectively, with Diploma courses for such technical branches for which schools exist. In the higher courses, research laboratories may be opened under the supervision of distinguished University Professors; and the activities should be so directed as to create conditions favourable, in the course of a very short time for the institution of other professional and technical colleges, such as *Law, Medicine, Agriculture, Engineering, and Technological Colleges*. It must be said that the process of hastening the founding of such a net-work of institutions will chiefly depend on the character and work of the proposed University.

The subject of the *site and location* will have to be largely determined by the Government, for obvious reasons. However, a few observations may be made. The site selected will depend on its capacity to admit of extensions for the increasing demands of the University. It must be aloof from the town and its contaminating influence, and yet be within easy access and the selection of the area need not involve any violent changes in the existing conditions.

The importance of concentrating the colleges and residential quarters in one area can hardly be over-estimated. The peculiar conditions and circumstances of the Hindu mode of life may not permit of making the colleges residential as has been suggested in Dacca and Nagpur. At present the residential and tutorial buildings may be separate though not far removed. I should suggest that a fairly large area in the centre of the grounds should be reserved for the colleges to spring up with the students' quarters all round within measurable distance. Thus the students of Mysore and those of Bangalore when they come here for inter-collegiate lectures will reside in the University premises, be amenable to its discipline and derive from it all the moral, social and physical advantages which the University can offer. Those that do not reside within the University area must be compelled to join the University institutions and to participate in all the phases of their activities. Thus will develop a feeling of comradeship and love for the *Alma Mater* which will be of great service in after-life.

The element of tutorial method must be largely employed in the mechanism of University instruction, setting free the professors to undertake investigation work. The old

world method of instruction adopted in the colleges, viz., attendance at colleges for a few hours, the leisure being spent in transcribing notes or preparing home exercises, is not calculated to stimulate originality, though it may widen the receptive powers of the students. The evil which perhaps accounts for the utter barrenness of intellect, should be remedied in the proposed University, by limiting the number of lectures to be delivered by the College Professors; they should be supplemented by the coaching of tutors. If the ideal of the University is to develop an all-round efficiency in its *alumni*, the development of character ought to be placed in the forefront of the conception of a modern University. Indeed the very fabric of life will be pulled to pieces if that cementing element were wanting and nothing is more conducive to its formation than the Residential system. The premises of the college must be regarded as a centre of social, moral as well as intellectual influence and a continuous residence will naturally produce feelings of association of a permanent character, besides contributing towards building a University tradition. The

full advantage can be derived only by those who actually reside within the college precincts and the scheme should provide for participation in them by even non-resident scholars. The University should see to it that the life of such non resident students outside the class-room is not neglected and regulations must be devised for effective supervision by the College authorities.

A modern University life would be incomplete if provision were not made for medical inspection and physical education of which all the students ought to be able to take advantage. The University must contain a department of physical education whose functions should include the medical examination of all the students on admission to the University and the provision of a course of theoretical and practical instruction in physical development.

Other matters relating to the organisation of the new University will take one into figures and technicalities referring to constitution, finance, administration and so forth and they need not be entered into here.

C. R. N.

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(Continued from page 691, Vol. XXI.)

Outline.	Subject-matter.	Reference.
29. Silicon and its chief compounds.	<i>Occurrence</i>:—One of the most abundant elements in the earth's crust. Its oxide—Silica—occurs as quartz or rock crystal, sand is quartz. Flint, agate and chalcedony are the several forms of silica—Silicic acid and silicates—Glass—complex silicate of sodium and calcium—Kinds of glass:—(a) Crown or window glass; (b) Soft glass; (c) Hard or Bohemian glass used for making flasks, combustion-tubes; (d) and Flint glass used in making optical instruments. <i>Coloured glass</i>:—Made by adding small quantities of various metallic oxides which form coloured silicates. Porcelain, clay and earthenware are mainly composed of silicates of Aluminium.	Books for reference. (1) A complete School Chemistry by Oldham. (2) A School Chemistry by Wilson and Hedley. (3) A First Book of Chemistry by Whitton.
30. The Alkali metals: Sodium and Potassium and their common compounds.	Sodium. <i>History</i>:—Discovered by Sir Humphrey Davy in 1807. <i>Occurrence</i>:—As chloride it is present in large quantities in sea-water and in rock-salt. As nitrate in Chili saltpetre. Study of its properties:—action of the metal on water. <i>Compounds of Sodium</i>:—to be studied: Common salt, sodium carbonate, sodium acid carbonate, sodium hydroxide and sodium-sulphate. <i>Sodium chloride</i>—common salt or table salt, Obtained (1) from sea-water by evaporation, (2) from salt mines—by filling the mines with water which dissolves the sodium chloride. The solution is pumped up and evaporated. <i>Properties</i>:—Action of heat; action of sulphuric acid. <i>Uses</i>:— <i>Sodium Carbonate</i>:—Washing soda or soda crystal—Obtained by two processes: (1) Leblanc process 3 stages (a) salt is heated with strong sulphuric acid. (b) The salt cake is mixed with charcoal and limestone and heated. (c) Water is added to the black-ash in which carbonate alone dissolves. (2) Solway or Ammonia Soda Process:—Saturating brine (a saturated solution of common salt in water) with ammonia and forcing carbon-dioxide under slight pressure through the solution.	Oldham, Chapter XXII, Wilson & Hedley, Chapter XIX Whitton, Chapter XV. Oldham, Chapter XXXI, Wilson and Hedley, Chapter XXV.

Detailed Syllabus in Chemistry—C. Group, S.S.L.C. Scheme.—contd.

Outline.	Subject-matter.	Reference.
	<i>Properties</i>:—Efflorescent—solubility rises with the rise of temperature. <i>Uses</i>:—used in the manufacture of soap and glass and for softening "permanently" hard water—hence the name washing-soda. <i>Sodium-acid carbonate</i>:—sodium-bicarbonate or baking soda— Prepared by passing carbon-dioxide into a saturated solution of washing soda. <i>Sodium-hydroxide or Caustic soda</i>:—Prepared by warming a weak solution of sodium-carbonate with slaked lime—<i>Properties and uses</i>:—strongly alkaline—Deliquescent—On warming liberates ammonia from ammonium salts. TEST FOR SODIUM—FLAME TEST. Potassium—Study of the chief properties and compounds of Potassium. Potassium hydroxide (caustic potash), Potassium-chlorate, Potassium nitrate (Nitre or Saltpetre.) TEST FOR POTASSIUM—FLAME TEST. Alkali metals— Sodium and Potassium are the best known metals; the other metals belonging to the group are lithium, caesium, rubidium. All these metals have similar properties. Calcium:—Typical of the group. <i>Occurrence</i>.—as carbonate is abundant in nature as limestone, marble, chalk, egg-shell, sea-shell; as sulphate in the form of Gypsum. <i>Compounds of Calcium</i>—Calcium-carbonate, Calcium-oxide and hydroxide, Calcium-chloride, Bleaching powder, and Calcium-sulphate. <i>Calcium carbonate</i>—Various forms of calcium-carbonates and their chief properties:—action of heat and action of acids—Preparation of pure calcium carbonate from limestone. <i>Calcium-oxide (Lime or quicklime)</i>—How obtained in kilns—properties—action of heat, action of water and action of acids. <i>Calcium-hydroxide (or slaked lime)</i>—lime-water—milk of lime—mortar and cements. <i>Calcium chloride</i>— Deliquescent substance—Much used for drying gases.	Oldham (7th edition) Chapter XXXII.
31. Metals of the Alkaline earths and their common compounds.		Oldham, Chapter XXXII. Wilson & Hedley, Chapter XXVI. Whitton, Chapter X.

Detailed Syllabus in Chemistry—C. Group, S.S.L.C. Scheme.—contd.

Outline.	Subject-matter.	Reference.
	Bleaching Powder—Prepared by passing chlorine over slacked lime for some time. <i>Properties and uses</i>:—A good oxidising agent—when lead-nitrate and manganese-sulphate solutions with caustic soda and treated with Bleaching powder, lead-peroxide and manganese-dioxide are respectively formed. Bleaching powder is used for bleaching cotton goods and paper, etc. Calcium-Sulphate—(Gypsum. Plaster of Paris.) <i>Properties and uses</i>. <i>Hardness of water</i>— Temporary hardness of water, permanent hardness of water—Temporary hardness of water is due to the presence of Calcium and Magnesium by carbonates in solution—Action of soap—Temporary hardness can be removed (1) by boiling or (2) by adding limewater. <i>Permanent hardness of water</i>—due to the presence of sulphates and chlorides of calcium and magnesium—action of soap—can be removed by adding sodium carbonate which precipitates insoluble magnesium carbonates. <i>Tests for calcium</i>— (1) Flame test—red colour. (2) A solution of calcium salt—made alkaline with ammonium-hydroxide and ammonium-chloride gives a precipitate of calcium-carbonate with ammonium carbonate solution. (3) Solutions of calcium salts give no precipitate with calcium sulphate solution. <i>Metals of the Alkaline earths</i>—are calcium, strontium and barium—they have similar properties. <i>Occurrence</i>—Never found in the free state combined, it exists as carbonate (Dolomite and Magnesite); as sulphate—Epsom salt. <i>Properties and uses</i>—action of air, water and acids—action of heat, used for making alloys. Chief compounds:— Magnesium oxide (Magnesia). Magnesium carbonate (Magnesite). Magnesium sulphate (Epsom salt).	Wilson and Hedley, Chapter XXVII.
32. Magnesium and its chief compounds.		

Detailed Syllabus in Chemistry—C. Group, S.S.L.C. Scheme.—contd.

Outline.	Subject-matter.	Reference.
	Compounds of lead:— Oxides— $\left\{ \begin{array}{l} \text{Lead monoxide.} \\ \text{Red lead.} \\ \text{Lead peroxide.} \end{array} \right.$ Lead chloride, Lead nitrate, Lead carbonate and Lead sulphate. Lead Monoxide:—(Litharge, massicot) obtained by heating the metal strongly in air or by heating Lead carbonate or Lead nitrate. Properties and uses:—Basic oxide—used for making flint glass and for the preparation of other compounds of lead. Red Lead. (Minium or tri-plumbic tetroxide)—obtained when Lead monoxide or Lead carbonate is heated in air for a long time to a very high temperature ($450^{\circ}\text{C}.$) Properties and uses:—Action of heat—action of acids—formation of Lead Nitrate and Lead peroxide with dilute nitric acid—used for making flint glass—used also as a pigment. Lead peroxide.—obtained as a dark brown powder by treating red lead with dilute Nitric acid. Properties and uses:—Action of heat (evolution of oxygen and the formation of Lead monoxide.) Action of acids—especially strong sulphuric and hydrochloric acids—a powerful oxidising agent. Lead Nitrate: Obtained by dissolving lead, the monoxide or carbonate in nitric acid and evaporating the solution. Properties:—Action of heat—decomposition of the nitrate into monoxide, nitrogen peroxide and oxygen. Lead chloride.—obtained as a curdy white ppte. when hydrochloric acid or a solution of a chloride is added to a solution of a lead salt. Properties: The ppte. dissolves in hot water and gives a solution which deposits sharp needle-shaped crystals of lead chloride (a test for Lead). Lead Sulphate.—obtained as a white insoluble ppte. when dilute sulphuric acid or a soluble sulphate is added to a solution of lead salt—Properties: Soluble in strong sulphuric acid and in solutions of ammonium salts or caustic Alkalies. (A test for Lead). Lead Sulphide.—a black ppte. obtained when Hydrogen sulphide is passed through a solution of Lead salt. Lead carbonate. (White Lead) study of its preparation, properties, and uses.	

Detailed Syllabus in Chemistry—C. Group, S.S.L.C. Scheme.—contd.

Outline.	Subject-matter.	Reference.
37. Tin.	Tests for Lead. 1. Hydrochloric acid precipitates Lead-chloride (a white ppte. soluble in hot water) with Lead salts (<i>Vide</i> Lead chloride). 2. Dilute sulphuric acid gives a white ppte. (insoluble)—soluble in Caustic Soda. (<i>Vide</i> Lead Sulphate.) 3. Potassium iodide gives a yellow ppte. of Lead iodide—soluble in hot water. 4. Potassium chromate gives a bright yellow ppte. of Lead chromate, soluble in caustic soda. 5. Lead salts heated with sodium carbonate on charcoal before the blow pipe, yield beads of lead. Occurrence. Tin dioxide or Tin stone is the common ore of Tin. The ore is found in Cornwall, Australia, Saxony, Bohemia and the Malay Peninsula. Extraction. The ore is first broken into small pieces and washed with water to get rid of earthy impurities; the heavy tin stone sinks and the water carries away the lighter impurities. Next, the ore is roasted to drive out sulphur. Then it is mixed with coal and strongly heated in a reverberatory furnace. The carbon combines with the oxygen of the ore, setting the tin free. Properties and uses. Not affected by air or water and so does not tarnish, hence used as a protective coating for other metals—tin, plates—used for alloys. Action of acids:—Hydrochloric acid acts slowly giving hydrogen and stannous chloride. Hot sulphuric acid gives stannous sulphate, sulphur dioxide and water—Nitric acid also acts readily with tin. Chief compounds to be studied. Oxides of Tin—Stannous oxide and Stannic oxide. Stannous chloride—Stannous sulphate. Tests for Tin:— (1) Hydrogen sulphide precipitates brown stannous sulphide from stannous salts and yellow stannic sulphide from stannic salts. (2) Mercuric chloride with excess of stannous salts gives a white ppte. of mercurous chloride which gradually changes on boiling to a grey ppte. of mercury. No reaction with stannic salts. (To be continued.) E. NARASIMHAM.	Oldham, (7th edition), Chapter XLIII Wilson and Hedley, Chapter XXX Whitton, Chapter XIV

elevation of a people, the men who long ago stood in this same place to receive their degrees as these young men have done to-day? We gratefully recognise that in faculties that are concerned with the scientific professions there has been a marked advance arising from progress in teaching and equipment in these faculties. In the Faculty of Arts, however, which covers the largest portion of the field of our activity, can we say that the products of to-day stand above those of the earlier time or as far above them as we might in reason have expected?

It is not easy to give a simple answer to this question. In those early days it was the few, the select spirits of the time, who sought admission to the University; to-day it is the ambition of almost every one who has enjoyed the benefits of an English education to enter the University. We have no right to expect therefore that we should have the same proportion of outstanding men. The Telange and Ranades and Mehtas of that time were towering personalities in a very limited group. The successors of these men are to-day a small group amid a great multitude. My own conviction is that we have still among our graduates men of the same high order. We send to the West graduates capable of winning the highest honours in the University of London and we still furnish to Cambridge a Senior Wrangler or his modern substitute, as has been seen again this year in the distinction won by our Government of India scholar. But such outstanding successes now represent a small proportion of the men of our University. If we are to institute a comparison it ought to be based not on the exceptional achievement of the few but on the general result of the system as a whole.

I am afraid we must confess that, judged by this test, the amount of progress that has been achieved falls far short of our reasonable expectation. It is the duty of every one, who is devoted to the interests of this University and desires to serve it, to endeavour to discover the cause of the slowness of our progress. The reason is not far to seek. It is not to be found in any specific defects in our curricula of study; nor is it due to any lack of ardent students, earnest in the pursuit of knowledge, ready to make every kind of sacrifice, of comfort, ease and even of health in order to achieve their purpose. Students more willing to be taught and guided, young men and young women more eager for success are not to be found in any of the Universities of the world. The reason of which we

are in search lies elsewhere; it is to be sought in the process through which these students are made to pass on their way to the goal which we have set before them. It is because we as a University have been too forgetful of the fact that our University system is dependent for its efficiency on the kind of education which precedes the entrance of the student into the University. We have an excellent, well-organized system of elementary education and a University with syllabuses and curricula which, if adequately carried out, would place our graduates in high academic rank; but unfortunately the intermediate stage, the High School preparation, is entirely and practically our University standards are being lowered to meet this inadequate preparation.

University reform in any other sense is not one of our crying needs. What the University needs is, *well-prepared students*, students so thoroughly equipped with a knowledge of the language that is to be the sole medium of their future studies, so well-grounded in the fundamental branches of a sound general education, that the courses prescribed by the University may become a reality and may prove to the men who enter on them a means of growing knowledge and expanding joy. The University requires such an improvement in the quality of the students who enter it, that the life of these students shall not be one of overwhelming strain, ending too often in disappointment and failure, and such that the professors in our Colleges shall find it possible to give them of their best and assist them in becoming intellectually strong and free. To me it has long been manifest that except in the case of a few specially gifted young men the standard of preparedness on which the University insists under the present system fails to secure this; with the result that a student's first year at College is spent in carrying on a course of study which could have been pursued under far more favourable conditions and with far better result in school. It is a year misplaced and the consequences of this misplacement dog the unfortunate student all through his University career. The simple remedy is to place it where it ought to be and to begin the College course where this first year College course or, what it really is, this closing year of the school, ends. I suppose there are few who have had any experience of College work who would not endorse the conviction, at which many of us arrived long ago, that the Previous Examination as it used to be held by the University marked the real beginning

of College study in any proper sense of the term and that this was the real Matriculation Examination in our University. Increasing experience has driven this conviction further home and to many of us it has become a settled conviction which leaves no room for even the shadow of a doubt that this is the point at which admission to the University should take place.

The acceptance of this position, no doubt, involves a considerable task of reconstruction in our Secondary Education. It is a task which must be resolutely and courageously faced, in which Government and the University must heartily co-operate, if this University is to fulfil worthily its high function. To re-organize University courses is a comparatively simple process; to make these real and fruitful by increasing the efficiency of the education that is preliminary to them is a task that requires the patient remodelling of many agencies. The former is perhaps a more imposing process; but it is a thing of emptiness unless the latter is also faithfully performed. The attempt to accomplish the former without having first attended to the latter (and this is a view which I have often pressed in the meetings of our Senate) is as ill-considered as that of the builder who lavishes skill and expenditure on the upper structure which greatly impresses the onlooker, but neglects the lower parts of his fabric which, though they may not appeal so powerfully to the passer-by, are regarded by all who know as the things of chiefest moment. Such mistakes have been made in the history of this University. They can still be corrected by again looking to our foundations. And this we must do if our life and the lives of our students are not to be spent "in shallows and in miseries."

If any should be disposed to doubt the urgency of this need, let him peruse the reports of our Examiners which are in the hands of many of us and have been recently commented upon in the public press. I shall not quote here the indictments contained in several of these reports submitted by European and Indian Examiners, the most severe being those offered by an Indian who is himself a graduate of this University. I would only say that they support every word of my contention. They shew that only in the case of a limited number of our students, principally, though not exclusively, those who go in for Honours, are the performances of the candidates of high merit, while great numbers give unmistakable evidence of carelessness and inaccuracy due to the imperfect education with which they approached their University studies.

There is one class of remark, which frequently recurs in these reports, which seems to invite a deeper consideration of the methods of instruction pursued in our schools. These reports complain of a want of originality in the answers of candidates and allude to the prevalence of what is described as "unintelligent cram." Personally I should feel disposed to condone this alleged want of originality, for originality is scarcely to be expected in the ordinary student at this comparatively early stage. If by "cram" is meant the memorizing of results at which we have arrived by processes thoroughly understood, then "cram" is something practised by all men and not confined to the candidates at University examinations. It is essential to all progress for we cannot be always retracing our steps from the beginning. The mathematician must carry in his memory numerous formulæ every one of which he ought, however, to be able to re-discover whenever it may be necessary. "Unintelligent cram" is, I take it, the loading of the memory with propositions which are not understood, the very terms of which may be unintelligible to the user.

If this kind of "cram" is so prevalent as these reports seem to indicate, there must be a reason for it which ought to be inquired into. The conclusion at which I have arrived is, that it is intimately connected with the fact that so much is taught and attempted to be learned at too early a stage in a foreign tongue. When any subject has to be studied through the medium of a language not yet understood the tendency to "unintelligent cram" is inevitable. The case of such a student is like that of the youth without mathematical understanding who is being initiated into the mysteries of Euclid. If he has no conception of the things contained in these propositions and cannot think them out for himself he can at least commit Euclid's words to memory and in his despair he falls back on a power which all his young life he has learned to trust. He takes upon himself the dreary task of committing all these strange things to memory. His faith in the great geometer is unbounded and he learns to repeat his mystic statements from memory, with the result that he learns nothing of geometry except to hate the very name of it. Is there not a danger that the same thing may happen in regard to many other subjects besides mathematics? Unless the first conceptions are really grasped and clearly understood all real progress becomes hard, becomes indeed impossible.

quickened and rendered incomparably more accurate. An education in Drawing conduces to make men more certain and correct in what they do. It encourages a habit of neatness, correctness and order and gives a taste for innocent and intellectual amusement. The study of Art possesses this great and peculiar charm, that it is, absolutely unconnected with the struggles and contests of life. Though Drawing should be learned in youth, it may form a pleasant and useful study at any period of life. It is a power of expressing forms accurately, and in daily life is far more valuable than words. Drawing, in general education, is the most potent means of developing the perceptive faculties. The beauties of nature can be more thoroughly appreciated when the eye is trained by the practice of Drawing. It gives children a better use of their hands and eyes, and trains them to observe in a way they never did before. It teaches the students to see correctly and to understand what he sees. To be able to depict what the eye sees or the mind conceives, is to possess a rare and valuable faculty. There are few avocations in which a knowledge of decorative laws cannot be utilized. Much employment is given by the decorative arts, so in this practical age the beautiful has a commercial value. Art is able to exercise and to gratify both the nobler and the softer parts of nature. That decoration be beautiful, it must be appropriate and unobtrusive. Inappropriate decoration will spoil the best designed and best executed construction. By private interests, by political questions, men are divided; but they are attracted and united by a taste for the beautiful in Art. To be able to sketch from nature is to bring the pleasure of travel to those who are compelled to remain at home.

The qualities of mind required to produce a work of Art are two—the power of design and the power of imitation. Truth is the essential of beauty—truth in Art, is the power of realizing the beauties of nature to the utmost. It is the love and appreciation of what is truly beautiful in nature that makes the great artist. Eminence in Art is not to be attained without time and energy. Drawing is best learned in youth, but it is never too late to learn something of this charming art.

In the teaching of other subjects, Drawing plays an important part. There is no subject in the school curriculum which does not require the help of Drawing. I can boldly say that no teaching will be effective if schoolmasters do not use, at least, a certain amount of Drawing. The History teacher must often draw sketch maps, pictures and other things connected with Drawing to make his teaching impressive. The Mathematics master will have to draw diagrams, geometrical figures, &c. The English lecturer will find it very useful in places where his explanation or description fails. It need not be said that it is indispensably necessary in the teaching of Science where experiments and illustrations form the chief factors. To teach the subjects of the lower classes, namely object lessons, kindergarten, story-telling, hygiene, geography teaching, clay-modelling, &c., Drawing is quite essential. In any case to be a successful teacher, one must know something of Drawing. A good amount of energy spent in explanation could be saved and the teaching made vivid, by means of illustration Drawing. *An atom of Drawing is worth a ton of preaching.*

From this I do not mean that Drawing is useful to school masters alone, but it gives a

valuable help to all, after school life. Every profession in life makes use of it, in some way or other. It is extremely useful to lawyers in the preparation of plans, &c. The officers in the Public Works Department, cannot do anything without the help of Drawing. Much of their work is Drawing and nothing else. Students seeking admission into the Engineering College are often refused admission on the simple ground that they are weak in Drawing. Now-a-days, even the higher grade Police officers find they cannot do without it. Sub-Inspectors and Prosecuting Inspectors have to prepare plans, &c. of the spot where crimes are committed. All officers in the Revenue Department especially Village Officers, Revenue Inspectors, Tahsildars and Survey Officers have to produce good certificates in Drawing before they are entertained in the Department. So, if our boys wish to come out successful in their after life, they cannot do so without having some grounding in Drawing. From my own personal experience, I find that even among carpenters, goldsmiths, blacksmiths, potters, those who have some taste in Drawing, are considered to be the best workmen. So from all these, we must understand that Drawing is not only an essential qualification to the Drawing-masters, but it is useful, in several ways, to other men also. We have reasons to think that such an important subject does not find a prominent place in the public examinations. Does not matter. Geography, Indian History, and Elementary Science, all these also, are not included in the public examination. From this, it does not mean that these subjects should be neglected.

Having said so much about the value of Drawing, I shall now try to give a few im-

portant points in connection with the teaching of the same. As in the case of other subjects, Drawing also requires careful preparation beforehand. The prevailing opinion that the Drawing hour is a leisure period both to teacher and the taught, is absurd. Without preparing the subject previously, the lesson can, in no way, be made interesting and instructive. The teaching of Drawing, just like other subjects, has different stages. The subject may be divided under the three general heads, namely:—

1. Imitation or Copy Drawing which is to receive the method, reveal the principle, to show how to use the medium and the various mechanical devices.
2. Perceptive or Object Drawing which is to give ideas of form, color, relation, relative size, proportion, construction and to form and correct the mental image.
3. Imaginative and Memory Drawing which is to give power to do, to express thought and impart ideas. To turn perceptive knowledge into conceptive knowledge, and to make the mechanical processes largely automatic. It will be seen from the above that in all Drawing, the object is the source, the copy is the how and the memory is the test. Generally these three classes of Drawing should go hand-in-hand, each supporting, helping, and explaining the others. Of the three main heads, much importance is attached to Object Drawing. Drawing-masters should always try, as far as possible, to take the objects selected for the day's work to the class. The various parts of the object with regard to its form, relation, relative size, different proportions and construction should be explained. The teacher of Drawing must always be earnest and enthusiastic about his work. This is the most important qualification.

tion of a Drawing-master in addition to his technical and general qualifications. The students should be encouraged to use always good and long pencils for this purpose. The quality of the materials goes a long way towards good Drawing. The students must be insisted upon not to use too much rubbing. In making simple sketches of familiar objects, they should never be allowed to use scale. The teacher must create an interest in the minds of the little children. The teacher should see that students draw the figure bit by bit.

LOWER PRIMARY CLASSES (INFANT, I & II.)

In the Lower Primary classes, the most simple form of very familiar objects to our children, should be taught. If unfamiliar objects are taken, they will not take any interest in the subject. The duration of a period for Drawing in these classes should not be more than 30 minutes. It is enough if two such periods for Drawing are set apart in one week. In some schools, the period covers 50 minutes and the little children cannot bear the strain put upon them. This is very objectionable. It is the duty of the Drawing-master to bring such points to the notice of the Headmasters. In the Infant class, the pupils should be insisted upon bringing squared slates and long slate pencils for Drawing. The Drawing-master must always be cheerful and active in the presence of the pupils. The little children will take a pleasure and interest in the subject if the teacher begins the lesson by telling a simple story about the particular object he is going to teach. The main object of telling the story must be to bring out the importance of Drawing. The form and size of various parts of the object should be explained before he goes to draw it and simple and interesting questions may be put to the students.

UPPER PRIMARY CLASSES (III & IV.)

In the Upper Primary classes, familiar objects of a more difficult nature should be selected. The duration of a period in this Department may be 45 or 50 minutes. There is no harm if 2 such periods are given in a week. In teaching the students of these two classes, they should be first taught how to observe the different parts of the object. In some schools, the Drawing on paper is begun from the 3rd class upwards, and in other schools, it is begun from the 4th class upwards. It is my humble suggestion to begin to draw on paper from the 3rd class as the pupils have gained experience in the free movement of their hands by writing often in the Lower Primary classes. The only disadvantage that I can point out is that the students will have a tendency to press their lead pencil too much. This practice should not be tolerated as it is a very bad one. To prevent this, the boys may be required to bring long lead pencils and to hold them a little more than an inch above the mending of the pencils. If they are taught to hold their pencils in the beginning like this, they will write an excellent hand and draw very neat sketches.

LOWER SECONDARY CLASSES (FORMS I, II & III.)

Simple designs suited for decorative purposes must be taught in addition to the objects given in the curriculum. If the objects are not available for the time being, the various parts of the figure of such objects, may be drawn separately on the black board and the students may be asked to combine them as one. In some cases, they may be asked to draw the figure direct from the object. In other cases, they may be asked to draw the figure from memory. The power of observation is the most important thing to be taught in these forms. If the students are able to observe a thing very minutely, they

are able to draw it direct from the object or from memory. In this connection, I should like to point out that model Drawing—an important part of the subject—is totally neglected. A careful study of the Code Curriculum shows how essential it is. The teacher should explain to the students the principles of model Drawing at least in Forms II and III. Some Drawing-masters are of opinion that this method of teaching is not necessary in these forms for the only reason that the pupils are not appearing for Government examinations. Unless the instructions on Model Drawing are given, I do not know how my friends will teach the figures given in the curriculum. Model Drawing is the grammar of Object Drawing. When the Drawing-masters were instructed that much weight should be attached to Object Drawing, they totally neglected the most important part of the subject namely Model Drawing. They threw this into the background as English Grammar was done when the direct method of teaching English was introduced. As the English teachers have begun to feel the necessity for Grammar, the Drawing-masters also are crying for including Model Drawing. From this I do not mean that the students should be asked to bring plumb-line and other materials for this purpose. It is enough if the teacher shows practically the various methods of obtaining different forms of an object placed in different views. If 3 or 4 objects are dealt with, the pupils will have no difficulty whatever to draw objects placed in different positions. If this is done, I am sure our pupils will be able to observe most of the objects seen around us and to draw at least simple sketches of what they observe.

One reason that my friends give out for their impossibility to teach Model Drawing is that there are no facilities for our work. It

is true that we the Drawing-masters with the exception of two or three are working under the greatest disadvantages.

Another reason urged by the teachers of the subject, is that the time is insufficient. This is also true. We hope that the Department will give us every facility to teach this important subject. The defects may be remedied by bringing these difficulties to the kind notice of our Headmasters and Inspecting officers who are always ready to lend us a helping hand.

UPPER SECONDARY CLASSES (FORMS IV, V & VI.)

The pupils in these forms should be taught how to draw an object from different positions. Our science-master will be too glad to lend us objects from the Science Laboratory. If we begin with these things, they will take a real interest in the subject as it is very useful in their science lessons. If the pupils are able to draw simple objects in different positions, they will find no difficulty in drawing the complicated arrangement of experiments. In some schools this important subject is arranged in the time-table, to be taught in the VI Form, after school hours. It should be arranged during class hours.

In concluding this essay of mine, I feel that it is my bounden duty to express my thanks to one and all of you, Gentlemen, for patiently and attentively listening to my remarks on the subject and as I do not wish to tire your patience any longer, I have not dealt fully with the details for carrying out my plans for the effective teaching of the subject.

THE INDIAN SCIENCE CONGRESS AND EDUCATION.

SIR,

May I request the courtesy of your columns for the publication of this letter whose object is to place before the leading educationists and scientists, the suggestion of including education in the annual deliberations of the Indian Science Congress? The British Association for the Advancement of Science on the model of which the Indian organisation is founded has recognised the scientific basis of pedagogy by the institution of Section L. and that a similar position may be created for education in the Indian Science Congress is a proposition on which there may not be any difference of opinion. It is this position that Sir James Meston emphasised in his opening address at the Lucknow Session, in which, while indicating the numerous directions in which the help of scientific thought was indispensable, he very rightly gave the foremost place to education. His Honour observed, "we want your psychology in what is possibly the most important and the greatest of all our problems, the problem of Education,"—and this utterance is no mere effusion of rhetoric but is a powerful plea for the help of sciences like Applied Psychology, Heredity and Sociology in solving the Indian Educational problems. The administrator is at every turn confronted with those larger issues of education, the satisfactory solution of which ought to be based upon the data derived through observation of the educational phenomena in the class-room by the teacher, supported by the investigations of the students of social sciences, as otherwise education has little chance of being rescued from the empirical state in which it has been suffered to

remain rather too long. No one would question the progress which has been made in education during the past fifty years: but one may justly enquire concerning the efficiency of the work that has been done from the standpoint of the money spent and the effort and devotion of those engaged in teaching, and at present we are not in a position to attribute the failures to their right causes such as lack of the economical use of funds, an inefficient system of organisation or an unintelligent practice in method. In all the progressive countries whose educational systems we admire and in a measure adopt, the pedagogical enquiries wherever possible are built on the results of original investigations in the psychological laboratories or are tested by the statistical methods before they are organised into any schemes of public utility. The Indian Educational problems are at once delicate and difficult and the deliberations of an expert body of educationists will lend authoritative support to their satisfactory solution. Take, for instance, Female education. This is a subject on which the authorities feel themselves brought up against a dead wall and the educationists have maintained a solemn silence now and then broken by a few general utterances. But has the administration at its disposal any material which is the result of the actual study of the needs and scope of such education from the several view points of the peculiar circumstances surrounding it, and of discussion of the subject by those who are competent to pronounce an authoritative opinion, such as would form a basis for a policy of wide-spread beneficence. The importance of the problem is realised, especially with reference to India, when we recognise that the third day's discussion a

EDUCATION IN THE MAGAZINES.

Industrial Schools.

Mr. K. Srinivasa Raghavachari, Head Master, Government Commercial High School, Bangalore, writes to the *Karnataka* :—

The Government of His Highness the Maharaja of Mysore have sanctioned the establishment of some more Industrial Schools in certain District Head-quarters.

There are two distinct views expressed on this subject. Some educationists, especially those of America, say, that these schools should be branches of High Schools intended for imparting instruction in general or, in what are known as liberalising subjects. Under this system, it is required that Industrial subjects should be taught in High Schools as optional subjects, in the same way as those of group (c) are in accordance with the School-Final Scheme, the passing of a satisfactory public examination in these subjects being rendered necessary for those who take them up, to complete the certificate. Certain Commercial subjects are at present treated in this way.

The other view expressed on the subject of Industrial Education is that separate schools well staffed and equipped should be established and into these, only those who have successfully completed their School-Final course should be admitted. This view is prominent in England and in some countries on the Continent of Europe. In this scheme, efficiency is aimed at; for "any school founded, manned and equipped to do a single thing and minister to a single interest gains much in directness by its simplified problem and by the direct method it naturally employs." The number of students that are likely to attend these schools would perhaps be small, for, many who have attained the standard required for entrance to these schools may prefer collegiate courses, but the products which these schools turn out will be highly efficient.

If Practical Instruction classes are established in connection with Vernacular and Anglo-Vernacular schools similar to the one established at Anekel, the advantages expected of the scheme in accordance with the first of the views expressed would be partly realised, if not in full. The Mechanical Engineering School and other branches of Technological study intended to be established in connection with it, would share the nature of special schools under the scheme fore-shadowed in the second of the views noticed above. Thus, in the natural order of things, the

the British Association recently held at Manchester was devoted entirely to the "Education of Girls with special reference to their careers," and there are many more questions of equal importance, in which there is scope for original enquiry and useful discussion both of which provide fresh stimulus for increased activity and investigation, without which it is feared education will go on making more mistakes and achieving little success. The results obtained at the psychological and pedagogical laboratories in which the psychical functions are attempted to be measured in anthropometric or pedagogical or psychological terms, have completely altered the face of education and the value of such results both in the theory and practice of education becomes enormous; firstly in securing economy in time, effort and money, secondly, in preventing wastage of mental energy, improper classification and rate of promotion, and overloading of curriculum, and thirdly in pointing towards the attainment of a scientific and rational method tending towards the realisation of the ideals of education.

C. R. NARAYAN RAO.

elevation of a people, the men who long ago stood in this same place to receive their degrees as these young men have done to-day? We gratefully recognise that in faculties that are concerned with the scientific professions there has been a marked advance arising from progress in teaching and equipment in these faculties. In the Faculty of Arts, however, which covers the largest portion of the field of our activity, can we say that the products of to-day stand above those of the earlier time or as far above them as we might in reason have expected?

It is not easy to give a simple answer to this question. In those early days it was the few, the select spirits of the time, who sought admission to the University; to-day it is the ambition of almost every one who has enjoyed the benefits of an English education to enter the University. We have no right to expect therefore that we should have the same proportion of outstanding men. The Telange and Ranades and Mehtas of that time were towering personalities in a very limited group. The successors of these men are to-day a small group amid a great multitude. My own conviction is that we have still among our graduates men of the same high order. We send to the West graduates capable of winning the highest honours in the University of London and we still furnish to Cambridge a Senior Wrangler or his modern substitute, as has been seen again this year in the distinction won by our Government of India scholar. But such outstanding successes now represent a small proportion of the men of our University. If we are to institute a comparison it ought to be based not on the exceptional achievement of the few but on the general result of the system as a whole.

I am afraid we must confess that, judged by this test, the amount of progress that has been achieved falls far short of our reasonable expectation. It is the duty of every one, who is devoted to the interests of this University and desires to serve it, to endeavour to discover the cause of the slowness of our progress. The reason is not far to seek. It is not to be found in any specific defects in our curricula of study; nor is it due to any lack of ardent students, earnest in the pursuit of knowledge, ready to make every kind of sacrifice, of comfort, ease and even of health in order to achieve their purpose. Students more willing to be taught and guided, young men and young women more eager for success are not to be found in any of the Universities of the world. The reason of which we

are in search lies elsewhere; it is to be sought in the process through which these students are made to pass on their way to the goal which we have set before them. It is because we as a University have been too forgetful of the fact that our University system is dependent for its efficiency on the kind of education which precedes the entrance of the student into the University. We have an excellent, well-organized system of elementary education and a University with syllabuses and curricula which, if adequately carried out, would place our graduates in high academic rank; but unfortunately the intermediate stage, the High School preparation, is entirely and practically our University standards are being lowered to meet this inadequate preparation.

University reform in any other sense is not one of our crying needs. What the University needs is, *well-prepared students*, students so thoroughly equipped with a knowledge of the language that is to be the sole medium of their future studies, so well-grounded in the fundamental branches of a sound general education, that the courses prescribed by the University may become a reality and may prove to the men who enter on them a means of growing knowledge and expanding joy. The University requires such an improvement in the quality of the students who enter it, that the life of these students shall not be one of overwhelming strain, ending too often in disappointment and failure, and such that the professors in our Colleges shall find it possible to give them of their best and assist them in becoming intellectually strong and free. To me it has long been manifest that except in the case of a few specially gifted young men the standard of preparedness on which the University insists under the present system fails to secure this; with the result that a student's first year at College is spent in carrying on a course of study which could have been pursued under far more favourable conditions and with far better result in school. It is a year misplaced and the consequences of this misplacement dog the unfortunate student all through his University career. The simple remedy is to place it where it ought to be and to begin the College course where this first year College course or, what it really is, this closing year of the school, ends. I suppose there are few who have had any experience of College work who would not endorse the conviction, at which many of us arrived long ago, that the Previous Examination as it used to be held by the University marked the real beginning

of College study in any proper sense of the term and that this was the real Matriculation Examination in our University. Increasing experience has driven this conviction further home and to many of us it has become a settled conviction which leaves no room for even the shadow of a doubt that this is the point at which admission to the University should take place.

The acceptance of this position, no doubt, involves a considerable task of reconstruction in our Secondary Education. It is a task which must be resolutely and courageously faced, in which Government and the University must heartily co-operate, if this University is to fulfil worthily its high function. To re-organize University courses is a comparatively simple process; to make these real and fruitful by increasing the efficiency of the education that is preliminary to them is a task that requires the patient remodelling of many agencies. The former is perhaps a more imposing process; but it is a thing of emptiness unless the latter is also faithfully performed. The attempt to accomplish the former without having first attended to the latter (and this is a view which I have often pressed in the meetings of our Senate) is as ill-considered as that of the builder who lavishes skill and expenditure on the upper structure which greatly impresses the onlooker, but neglects the lower parts of his fabric which, though they may not appeal so powerfully to the passer-by, are regarded by all who know as the things of chiefest moment. Such mistakes have been made in the history of this University. They can still be corrected by again looking to our foundations. And this we must do if our life and the lives of our students are not to be spent "in shallows and in miseries."

If any should be disposed to doubt the urgency of this need, let him peruse the reports of our Examiners which are in the hands of many of us and have been recently commented upon in the public press. I shall not quote here the indictments contained in several of these reports submitted by European and Indian Examiners, the most severe being those offered by an Indian who is himself a graduate of this University. I would only say that they support every word of my contention. They shew that only in the case of a limited number of our students, principally, though not exclusively, those who go in for Honours, are the performances of the candidates of high merit, while great numbers give unmistakable evidence of carelessness and inaccuracy due to the imperfect education with which they approached their University studies.

There is one class of remark, which frequently recurs in these reports, which seems to invite a deeper consideration of the methods of instruction pursued in our schools. These reports complain of a want of originality in the answers of candidates and allude to the prevalence of what is described as "unintelligent cram." Personally I should feel disposed to condone this alleged want of originality, for originality is scarcely to be expected in the ordinary student at this comparatively early stage. If by "cram" is meant the memorizing of results at which we have arrived by processes thoroughly understood, then "cram" is something practised by all men and not confined to the candidates at University examinations. It is essential to all progress for we cannot be always retracing our steps from the beginning. The mathematician must carry in his memory numerous formulæ every one of which he ought, however, to be able to re-discover whenever it may be necessary. "Unintelligent cram" is, I take it, the loading of the memory with propositions which are not understood, the very terms of which may be unintelligible to the user.

If this kind of "cram" is so prevalent as these reports seem to indicate, there must be a reason for it which ought to be inquired into. The conclusion at which I have arrived is, that it is intimately connected with the fact that so much is taught and attempted to be learned at too early a stage in a foreign tongue. When any subject has to be studied through the medium of a language not yet understood the tendency to "unintelligent cram" is inevitable. The case of such a student is like that of the youth without mathematical understanding who is being initiated into the mysteries of Euclid. If he has no conception of the things contained in these propositions and cannot think them out for himself he can at least commit Euclid's words to memory and in his despair he falls back on a power which all his young life he has learned to trust. He takes upon himself the dreary task of committing all these strange things to memory. His faith in the great geometer is unbounded and he learns to repeat his mystic statements from memory, with the result that he learns nothing of geometry except to hate the very name of it. Is there not a danger that the same thing may happen in regard to many other subjects besides mathematics? Unless the first conceptions are really grasped and clearly understood all real progress becomes hard, becomes indeed impossible.

speaker said that they should prepare themselves for their duties in the future, and not go out into the struggle in the political life without training on the line in which they would have to act in the future. To say they should not think of politics in their student days was nonsense. If their study was to prepare themselves for the world when they were going out into the outer world they must study all things and of all studies they must study the condition of their country and the ways in which prosperity was to be brought to dwell in their land. That was the view of the English training. She had something personally to do with the training of young men in the Central Hindu College where she made the study of political questions part of the work of the young men. And with what result? Throughout those days of turmoil, those days of unrest when there was so much of disturbance in the outer world within their College they were free from it. They discussed all the questions. There was no secrecy, nothing kept back, no boy was obliged to keep out his political ideas. Nobody can help having political ideas, nobody can prevent them having ideas. But the danger is not that they should think, not that they should discuss, not that they should express their opinions even though those opinions should be immature, but that they should keep silent except among small groups here and there and vent their feelings in secret conspiracy instead of in open debate. In England it is considered that young men ought to take part in discussion of political questions. The unions in Oxford and Cambridge are political unions. They should discuss and argue and acquaint themselves with the conditions of the country. That was the way to grow into statesmen and become worthy to lead their country in the days to come. It is out of the College, out of one generation of College boys, that Gladstone and Disraeli and Winston Churchill came out.

But the relation of students to politics should be in thought and study, not in action. While in College they have to be under certain control and discipline which was a necessary part of the training of young men unless they learn to be under discipline and learn self-control there was danger when they grow into manhood and when there is no one to compel them to withdraw from this or that.

Their preparation should be of two kinds, one ethical and one practical. The ethical side was in the study of history and economics. By history she did not mean Roman or Greek history, but the history of their own country,

not history that they knew as the history of their country but the history of the past that lay behind them. The school histories that they had were simply absurd; they were only designed to misunderstand their country. The lecturer then said that the history they were taught commenced only with Clive. But they had a glorious history which they were not taught; and she pointed out how glorious and rich India was before and how different it is now from what it was and asked them to try and learn that. As regards economics also she asked them to study Indian economics and not to learn them based on principles applicable to different conditions. She impressed on them that agriculture alone could never make a country rich or prosperous. As regards the practical work they should learn, she suggested the sort of work done by the Social Service League and said they should try to learn the poverty of the people and its causes, move about the poor and submerged classes freely and show more sympathy towards them and learn their difficulties which would enable them to deal with such problems easily in after life. In conclusion she appealed to them not to make any difference between Mohammedan and Hindu history, but to cherish them both as their own.

Prof. C. V. Raman's Lectures at Benares.

Prof. C. V. Raman, at the invitation of the Foundation Stone Committee, gave two addresses at the Central Hindu College. The first was on Monday morning (the 7th inst.) and was of a general character. In this address Prof. Raman pointed out that the successful carrying on of important research work with the resources and under the auspices of an indigenous institution in India was already an accomplished fact. He referred to the activities of the Indian Association for the Cultivation of Science and pointed out that the publications of this Association which represented the results of scientific research carried on in India mainly by Indians had already attracted world-wide attention. He would refer in particular to a recent issue of one of the most important European scientific journals in which an eminent specialist had devoted no fewer than 17 full pages to a discussion of his (Prof. Raman's) research in one particular subject and its results. He hoped and believed that in due course the Hindu University of Benares would achieve great results in many directions. In his opinion it was no doubt important that we should revive the ancient learning of India in all its branches but it was even more important and necessary that Indians should devote a greater

part of their attention to the advancement of positive knowledge as it stood at the present day. He considered that the Hindu University should take steps to develop a strong mathematical faculty devoted to the active pursuit of mathematical studies and research. He quoted the names and careers of many Indians who had successfully carried out important mathematical research. In his own work in theoretical and experimental physics, he had been extremely careful at every step to verify his results by quantitative measurement and comparison with the results of mathematical theory.

On Tuesday evening (the 8th inst.), Prof. Raman gave an illustrated lantern lecture in which he described the results of some of his most recent researches, especially on the mechanics of the vibrations of bowed strings, a problem which had defined the efforts of some of the most eminent of mathematicians of the 19th century and which, as the result of about a year's steady work he had now, in great part, succeeded in elucidating.

The Empire of Vijayanagar.

A LECTURE BY PROF. S. KRISHNASWAMY IYENGAR.

On Monday, the 31st ultimo, Mr. S. Krishnaswamy Aiyengar, M.A., University Professor of Indian History, delivered a lecture on Vijayanagar, illustrating it with magic lantern slides in the Lawley Hall, Trichinopoly. After being introduced by the Rev. F. Bertram, S. J., Principal of the St. Joseph's College, the lecturer made the following observations:—

Father Bertram, Ladies and Gentlemen.—A lecture upon the history of Vijayanagar is too much to be compassed in a single lecture. It is more an exhibition of what the capital city of the Empire is as it appears at present 400 years after. But by way of introduction and in order just to enable you to understand what that means I shall have to devote a few minutes to a very cursory view of the origin and destruction of the Empire of Vijayanagar.

In the very best of its days, Vijayanagar embraced within itself all that is Madras Presidency at present together with the Native States of Mysore, Cochin, and not altogether a negligible portion of the Nizam's Dominions and the Southern Mabaratta country of the Bombay Presidency. In that extent it did not exist for long. The Empire came into existence not as an empire, but on a comparatively small foundation under circumstances which peculiarly

appeal to the Hindu population of this part of India.

Just about the commencement of the 14th century the political condition of South India was anything but encouraging, looked at from the standpoint of the Hindus. The Muhammadan power exercised its authority over Hindustan, had just penetrated the Narbadâ and the mountain barriers of the Vindhyas, and had carried successful incursions once or twice into one of the kingdoms of the South.

There were at that time five kingdoms worth the name in South India, the Yadavas, the Kakateyas, the Hoisalas, the Chola Kingdom which had broken up into two or three principalities and the ancient kingdom of the Pandyas. Disunited as they were they were unable to stand against the united forces of the Imperial resources at Delhi.

About the end of the 13th century they carried a successful raid against the nearest Hindu capital of the South, Deogiri. The enterprise was very tempting for most of the adventurous spirits, and there were not a few such in the Muhammadan army. Each raid only whetted their appetite, for, more and more raids were the order of the day, and the only safety for them lay in union. That sense came only after better experience. They found that the only terms which the Emperor was prepared to accept from the kingdom which wanted to surrender lay in the three alternatives—acceptance of Islam, surrender of all earthly belongings or putting the neck to the sword. These were the terms sent to the messenger of Pratap Rudra of Warangal. This indicated to them what Muhammadan conquest would exactly mean. But nobody need be under the impression that I am condemning their administration. The settled Mussalman government is one thing. When they carried raid into other people's territories, it is another story. I am speaking of the violence of the preliminary raids.

It was under these circumstances that the Hindu kingdoms understood that union was necessary to protect that which was cherished as their heir-looms, viz., the Hindu civilization in this corner of the country. This resulted in a temporary military union under the Hoisalas of Hallabi and the foundation of a frontier outpost for military purposes which developed in the course of a century of unremitting labour into the glorious city of Vijayanagar, and that Imperial capital was fully destroyed by a union of Mussalman States under the irritating circum-

stances of defeat and humiliation. The foundation of the city was laid at about 1330. It reached its maximum extent and glory under Devaraya in 1445. After the battle of Talikota in 1565 the Mussulmans carried on a systematic destruction, for 6 months, of the city which was the cause of so much humiliation.

If you tramp through the ruins of what was once the magnificent city measuring $13\frac{1}{2}$ and 12 miles diagonally, you will find there is no piece of art that has not suffered from the hands of one or other of the middle age vandals. The details of the history are being turned out every day. It was a "Forgotten Empire" 15 years ago.

When it was in a flourishing condition at about 1442-43 there happened to be a Mussalman messenger from one of the sons of Tamerlane. He has left a glowing description of what the city looked like. The main *pan supari* bazaar extended over $4\frac{1}{2}$ miles of length.

Then the lecturer mentioned the drains paved with stones to bring in pure water for drinking purposes from the Tungabadhra.

A question may be raised whether the city was built on principles of town planning architecture. It was thought that there was no town-planning and the city consisted of thatched houses. It all seems to be moonshine.

The Professor then illustrated with magic lantern slides, the magnificent ruins of the city, and showed how the city was originally built in a position quite unfavourable to cavalry operations in which the Mussulmans excelled, how the city had natural defences, and how the systematic vandalism had affected almost every piece of art in the city.

THE UNIVERSITIES.

CALCUTTA UNIVERSITY.

Annual Meeting, Jan. 29, 1916.

The following gentlemen were elected representatives on the Syndicate for 1916-17 by the Senate:—
Mr. H. R. James, M.A., Mr. C. W. Peake, M.A.,
The Hon'ble Dr. Nilratan Sarkar, M.A., M.D. and
Mr. C. J. Hamilton, M.A.

The Faculties for the year 1916-17 were then constituted.

It was then resolved that the annual report of the Syndicate for the year 1915 be adopted. The following extracts are taken from the report:—

The usual examinations were held during the year in Arts, Science, Law, Medicine and Engineering. The total number of candidates, who appeared at this year's examinations was 27,360 against 24,189 in the previous year.

The number of candidates registered for the Matriculation Examination held in March 1915, was 12,617, of whom 7,598 passed, 4,886 failed, 67 were absent, 9 were expelled, 32 had their admission cancelled and 1 was disallowed. Of the successful candidates 3,727 were placed in the First Division, 3,316 in the Second and 559 in the Third.

The number of candidates registered for the Intermediate Examination in Arts held in March 1915, was 5,871, of whom 2,952 passed, 2,534 failed, 198 were absent, 14 were expelled and 6 had their admission cancelled. Of the successful candidates, 937 were placed in the First Division, 1,638 in the Second and 877 in the Third.

The number of candidates, who, after having previously passed the I.Sc. Examination, sat for the I.A. Examination in special subjects was 167. Of the candidates, 155 appeared in one subject only of whom 121 passed, 27 failed and 7 were absent. The number of those who appeared in two subjects was 12, of whom 4 passed in two subjects, 2 passed in one subject and 6 failed.

The number of candidates for the Intermediate Examination in Science held in March 1915, was 1,035 of whom 612 passed, 296 failed, 21 were absent and 1 had his admission cancelled. Of the successful candidates, 482 were placed in the First Division, 124 in the Second and 6 in the Third.

The number of candidates, who, after having previously passed the I.A. Examination, sat for the I.Sc. Examination in one subject only was 5, all of whom passed.

The number of candidates, registered for the B.A. Examination held in March, 1915, was 3,006. Of the 3,006 candidates 1,428 or over 47 per cent, were successful, 1,422 or over 47 per cent, failed (135 were absent, 3 were expelled and 2 had their admission cancelled). Of the successful candidates, 1,143 were placed on the Pass list, 105 on the list of candidates who passed with Distinction and 180 on the Honours list. Of the latter 11 were placed in the First Division and 169 in the Second.

The number of candidates registered for the B.Sc. Examination held in March 1915, was 498, of whom 241 were successful, 224 failed, 25 were absent, and 3 were expelled. Of the successful candidates, 148 were placed on the Pass list, 33 on the list of candidates who passed with Distinction and 60 on the Honours list. Of the latter, 17 were placed in the First Division and 43 were placed in the Second Division.

The M.A. Examination was held in July 1915. There were 591 candidates for the degree, of whom 252 were successful, 268 failed, 1 expelled and 70 were absent. Of the 23 candidates who were placed

in the First Class, 2 in English (A), 1 in English (B), 1 in Sanskrit (B), 1 in Pali (A), 1 in Arabic, 3 in History, 2 in Mental and Moral Philosophy, 3 in Political Economy (A), 7 in Pure Mathematics and 2 in Mixed Mathematics.

The M.Sc. Examination was held in July, 1915. There were 127 candidates for the Degree, of whom 57 were successful, 56 failed and 14 were absent. Of the 21 candidates, who were placed in the First Class, 10 passed in Pure Mathematics, 4 in Mixed Mathematics, 2 in Physics and 5 in Chemistry.

The Examination for Licence in Teaching was held in March, 1915. There were 40 candidates including 4 female candidates, of whom 30 were successful, 8 failed and 2 were absent. Of the successful candidates, 9 passed with distinction.

The Examination for the Degree of Bachelor of Teaching was held in March 1915. There were 60 candidates, including 6 female candidates, of whom 48 were successful, 11 failed and 1 was absent. Of the successful candidates, 19 were placed in the First Division.

At the Preliminary Law Examination held in January 1915, there were 544 candidates, of whom 321 were successful, 173 failed and 50 were absent; 3 were registered for the combined Preliminary and Intermediate Law Examinations. Of the successful candidates, 12 were placed in the First Class and 309 in the Second Class.

At the Intermediate Examination in Law held in January 1915 there were 343 candidates, of whom 187 were successful, 64 were absent and 92 failed; 3 were registered for the Combined Preliminary and Intermediate Examinations in Law and 23 for the Combined Intermediate and Final Examinations in Law. Of the successful candidates, 18 were placed in the First Class and 169 in the Second Class.

At the final B. L. Examination in January, 1915, there were 159 candidates, of whom 47 were successful, 41 were absent, and 71 failed; 23 were registered for the Intermediate and Final Examinations in Law. Of the successful candidates, 1 was placed in the First Class and 46 in the Second Class.

At the Preliminary Examination in Law held in June 1915, there were 847 candidates, of whom 411 were successful, 192 were absent and 244 failed; 7 were registered for the Combined Preliminary and Intermediate Examinations in Law. Of the successful candidates, 27 were placed in the First Class and 384 in the Second Class.

At the Intermediate Examination in Law held in June 1915, there were 495 candidates, of whom 222 were successful, 101 were absent, 1 was expelled and 171 failed; 7 were registered for the Combined Preliminary and Intermediate Examinations in Law and 73 for the Combined Intermediate and Final Examinations in Law. Of the successful candidates, 9 were placed in the First Class and 213 in the Second Class.

At the Final Examination in Law held in July 1915, there were 431 candidates, of whom 213 were successful, 102 were absent and 116 failed; 78 were registered for the Combined Intermediate and Final Examinations in Law. Of the successful candidates, 16 were placed in the First Class and 197 in the Second Class.

There was one candidate for the D.Sc. Degree. The examiners have not yet submitted their report.

There were 11 candidates for the M.L. Examination in 1915. The results of the Examination have not yet been published.

At the Preliminary Scientific M. B. Examination held in April, 1915, there were 155 candidates, of whom 107 passed, 44 failed, 3 were absent and 1 was expelled.

At the First M. B. Examination held in April 1915, there were 171 candidates, of whom 62 passed, 102 failed and 7 were absent. Of the successful candidates, 60 were placed on the Pass list and 2 on the Honours list. Of the latter, 1 obtained Honours in one subject and 1 in two subjects.

At the Final M. B. Examinations, Part I and Part II, held in April, 1915 there were 18 candidates, of whom 11 appeared in Part I and 7 in Part II. Of the candidates who appeared in Part I, 7 passed and 4 failed. Of the candidates who appeared in Part II, 5 passed and 2 failed. Of the successful candidates in Part II, one obtained Honours in one subject only.

At the Final M. B. Examination, Parts I and II, held in April 1915, there were 99 candidates, of whom 35 passed, 63 failed and 1 was absent. Of the successful candidates, 32 were placed on the Pass list, and 3 on the Honours list. Of the latter 3 candidates, each obtained Honours in one subject only. Of those who failed 1 passed in Part I and 27 passed in Part II.

At the half-yearly Preliminary Scientific M. B. Examination held in November 1915, there were 46 candidates, of whom 32 passed, 13 failed and 1 was absent.

At the half-yearly First M. B. Examination held in November 1915, there were 123 candidates, of whom 40 passed, 78 failed and 5 were absent. Of the successful candidates, 4 were allowed to sit for the Honours Examination in Physiology and 2 in Anatomy and Physiology.

At the half-yearly Final M. B. Examination Parts I and II, held in November 1915, there were 41 candidates of whom 36 appeared in Part I and 5 in Part II. Of the candidates, who appeared in Part I, 23 passed, 12 failed and 1 was absent. Of the candidates who appeared in Part II, 3 passed, 1 failed and 1 was absent. Of the successful candidates in Part I, 1 was allowed to sit for the Honours Examination in Midwifery.

At the half-yearly Final M. B. Examination, Parts I and II held in November 1915, there were 38 candidates, of whom 20 passed, 18 failed.

There were 41 candidates at the Intermediate Examination in Engineering held in July 1915, of whom 15 passed, 25 failed and 1 was expelled.

There were 26 candidates at the B. E. Examination held in July 1915, of whom 22 passed and 4 failed.

On the invitation of His Excellency the Governor, of Bengal, the Hon'ble the Vice-Chancellor opened a University War Relief Fund. Principals and Professors of Colleges, Teachers of Schools and students responded to the appeal and a sum of Rs. 13,813-2-6 was raised and forwarded to the Secretary to the Imperial War Relief Fund.

The annual Budget was under the orders of the Senate for the first time placed before it, and was discussed and adopted at a meeting of the Senate held on the 21st August 1915.

BOMBAY UNIVERSITY.

Imposing Special Convocation.

The special Convocation of the Bombay University for conferring the honorary degree of the Doctor of Law to Mr. Dadabhai Naoroji recently was a simple but imposing function. Long before the procession of Fellows and Syndics entered, the hall was full in every part. It was a brilliant academic gathering of the best in the intellectual life of Bombay. When Mr. Dadabhai arrived, about 10 minutes before the procession of the Chancellor, the Vice-Chancellor and the dignitaries of the University entered the hall, he was greeted with rousing cheers from all parts. He was supported by his daughter and son-in-law and Mr. D. E. Wacha. Although feeble and old Mr. Dadabhai bore his years well. Dr. Mackichan, Vice-Chancellor, in presenting the Grand Old Man of India to the Chancellor for enrolment as an honorary graduate of the University in the Faculty of Law said, the University was always jealous and discriminating in selecting the recipients of this high honour. A few months ago they resolved unanimously to confer this on two of her distinguished sons, Sir Pheroz Shah and Mr. Dadabhai. Though the latter belonged to pre-University days he was the product of that renaissance that gave birth to the Bombay University. After deploring the death of Sir Pheroz Shah Mehta the Vice-Chancellor gave a rapid review of Mr. Dadabhai's life long activities. Referring in terse terms to his professoriate at Elphinstone institution, the impetus he gave to education, and more especially the education of women, his work in the field of politics, his membership of Parliament, his transparent honesty and simplicity of purpose in all he did, Dr. Mackichan drove home the point that although the heated air of politics was alien to the University what contributed more than all else to the success of his work in England was his blameless character. The British people were sensitive to character in public men and what enabled Mr. Dadabhai to so effectively represent in England the

needs and aspirations of India was the high quality of the life and the character he possessed.

The Vice-Chancellor proceeded to remark that Mr. Dadabhai represented the highest type of manhood to which India has yet attained, 'one in whom are joined in happy union a loyalty to British rule that had almost passed into reverence and a burning passionate love for India that is undaunted and undying.'

Continuing he said, 'For him the day of strenuous labour is over, the quite eventide of rest has come. The sword is put back into its scabbard and the eye of the warrior gazes now out into the future of his vision and his hopes. No one grudges him peaceful rest he has so fairly won and we of the University would not have dared to invade it even with this offer of such honour were we not conscious of the duty which we owe to one who was a pioneer of light and progress in a far past day, whose example has inspired the multitude of the educated in our generation and whose name will be held in loving reverence by generations yet unborn.'

The Chancellor, His Excellency Lord Willingdon, after conferring the degree, in the course of a brief speech said to Mr. Dadabhai: 'In this the evening of your life you may often look back of this occasion with keen satisfaction and with the knowledge that your unselfish and devoted labours for your country have gained you the gratitude and veneration of your fellow citizens and high honour from the great University of your native city.'

The Convocation came to an end.

Matriculation Examination.

At the adjourned meeting of the Senate of the Bombay University on the 7th inst. discussion on Mr. Sharp's motion to adopt the Report of the Committee's recommendation regarding a Joint Examination Board in the place of the University Matriculation and School Final Examinations was resumed. A heated discussion took place on Sir Narayan Chandavarkar's motion that the meeting be dissolved as the original proposition was opposed to the position of the University. The Hon'ble Mr. Sattalvad supported Sir Narayan's motion as the original proposition raised the question of jurisdiction of the Senate and justified a reference to the Government in view of the Government's attitude towards the Matriculation in recent years. He gave instances of Government interference in University examinations from 1907 onward.

Justice Beaman condemned the discussion in strong terms saying that it was unbecoming. They were not in the Senate of the University in two hostile camps nor were the Government nominees so many dummies. He characterised the opposition to Mr. Sharp's motion as idle and foolish and aimed at an imaginary danger.

Principal Paranjpye who is a signatory to the report said that he signed the report because Government could not change this attitude regard-

ing the School Final Examination and that Sir Pheroz Shah Mehta had urged Government to reconsider their position in view of the changed conditions produced by the war. He further pointed out that the motion was Mr. Sharp's and not of the Syndicate's and the question ought to come before the Senate in a better form.

Dr. Stanley Reed said that the proper procedure should have been for the question to come first to the Senate and then to the Syndicate; yet they would not throw out the matter on such a technical ground. He opposed Sir Narayan's motion as it would stifle all discussion. He himself was opposed to a Joint Board of examination and would prefer School Final Examination for those who would not care for University education. The motion was ultimately put to the vote and lost by 39 against 25 votes. The Senate referred the matter to a Committee in view of the fact that there was such strong opinion on the subject as indicated by the speeches and voting.

Reviews and Notices.

THE ORIENT PEARLS (INDIAN FOLKLORE), BY SHOVONA DEVI. (MACMILLAN & Co.). 2s. 6d. net.

This book contains 28 small folk-tales of Bengal which the author, the niece of Sir Rabindranath Tagore, heard from various illiterate folks. Many of these were narrated "by a blind man still in my service, with a retentive memory, and a great capacity for telling a story." The English translation is easy and elegant, and the whole affords a very pleasant reading.

MR. NATESAN'S PAMPHLETS.

We have received from Messrs. Natesan & Co. four pamphlets, namely, *Ten Tamil Saints, Warfare in Ancient India, India's Untouchable Saints* and *Vemana, the Telugu Poet and Saint*. The first of these, written by Mr. M. S. Purnalingam Pillai, gives in a short compass the lives and works of Gnanasambanda, Manickavachaka, Appar, Sundarāmurti, Kannappa, Karikalammai, Tiruvalluvar, Meykanda, Tayumanavar and Pattinattar. The second, by Mr. P. Jagannathaswami, is a good and interesting account of the law and method of warfare in Ancient India. It is divided into ten sections, the first of which deals with the materials, the second with the causes of war, the third on the sinews of war, the fourth on forts, the fifth on diplomatic agencies, the sixth on the army organization, and the next four respectively on weapons, the time of engagement, preliminaries to actual fighting and actual fighting arrangements. In *India's Untouchable Saints*, Mr. K. V. Rama-

sami gives short sketches of the lives of Nanda, Ravidas, Chokamela and Harijans. Ramakrishna Rao's treatise on Vemana is a short and valuable manual on the life and labours of that great Telugu literary luminary.

SRI SANKARACHARYA AND HIS KAMAKOTI PĒTHA.

This is a beautifully printed pamphlet on the life and activities of the great Advaitic philosopher by Mr. N. K. Venkatesan, of the Kumbakonam College. The account is both brief and substantial and the genealogy of the Kamakoti Pētha given in the latter part is useful. The author completely ignores modern scholars and argues that Sankara lived from B. C. 509 to B. C. 477. The pamphlet should be welcome to all students of History.

TALES AND LEGENDS OF ANCIENT BURMA, BY Mr. S. W. COCKS, I. E. S. (K. G. COOPER, BOMBAY). 4s. 12.

This book is a collection of 15 tales, some of which are adaptations from the current Burmese tradition and others the Jatakas of North India. The author justifies the inclusion of the latter on the ground that they, though the scenes are in the classic home of Buddhism, are as much the property of the Burman as early English legends are the property of the American from the United States. Mr. Cocks regrets that "much of Burmese folklore is marked by a Rabelaisian vein that renders it unsuitable for school purposes." The book would be a fine text-book for the boys of the School Final classes and, both for the language and the substance, deserves introduction into our schools. The illustrations are good and suggestive, and the get-up is excellent.

A FIRST HISTORY OF INDIA, BY H. L. C. GARRETT, 186 pp. (K. G. COOPER, BOMBAY). 4s. 12.

In this book the author aims at telling the complicated story of the History of India in its simplest form. "To this end the earlier chapters are written in a style in which an endeavour has been made to avoid difficult phrases and involved passages. They may thus be put into the hands of boys whose knowledge of English is not of an advanced nature. As the story progresses, the difficulty of the language has been deliberately increased. The author hopes that the whole may form a progressive text-book, presenting no difficulty to a student whose knowledge of English is

being increased by a study of that language in other directions." The illustrations form an attractive feature of the book.

EASY LESSONS IN GERMAN, BY J. BITHELL, M.A.
(LONDON: SIR ISAAC PITMAN AND SONS.)
1s. net.

This little book contains about 26 exercises intermixed with sufficient explanation of the elementary grammar of the German language. The book is intended to meet the needs of those who wish to learn by self-tuition as well as by those attending classes. As the German language is perfectly phonetic, a few clear rules are given indicating the phonetic value of each letter and of groups of letters. When this is once mastered, there will be no difficulty in pronunciation. Each exercise is intended to be worked by the students and those who are their own tutors are provided with the facility of correcting their exercises by means of the key at the end of the book. It seems to us that the book is well-planned and may prove quite an adequate introduction for the study of the German language which remains yet necessary for the study of Indian History, Philology, &c.

GENERAL PHONETICS, BY MR. G. NOEL ARMFIELD.
(WILLIAM HEFFER & SONS, LTD., CAMBRIDGE) 3s. net.

This little book has been prepared in the words of its author to help "language students, to enter their field of work with some means of coping with the difficulties they are likely to meet as regards foreign pronunciation." It is meant to be an introduction to the study of phonetics leading to a specialised study of the works that have a particular language or groups of languages for their subject by further study. It describes more or less fully something like 80 of the main types of human speech sounds and attempts to give some account of the chief phonetic phenomena. It proceeds from the standpoint of southern English sounds as the standard. The book seems well designed in our opinion to meet the wants of those who wish to make a study of this subject which is coming to occupy a more and more important place in the study of languages.

THE INDIAN HEROES, BY C. A. KINCAID, C. V. O.
(OXFORD UNIVERSITY PRESS, OXFORD).

This little book attempts to tell the story of the two great epics of India, the Ramayana and the Mahabharata, in the style of Charles Kingsley's *Heroes*. The author is a member of the Indian Civil Service and well-known as a writer of other works such as "the Deccan Nursery Tales," "the Tale of Tulsi Plant," &c., is up to his usual level in this abridged version of the two great national epics of India. He follows the originals closely enough for the purposes of the story but does make alterations of detail to bring it up to the literary level European readers would require. Sometimes he does not follow Valmiki but takes his tale from other versions of the Ramayana. These changes are very well illustrated in the following quotation of the outrage of Draupadi well-known to the readers of the classic equally with the listener to the popular story-teller.

"But Prince Dashasan ran after the Princess in a fury and, seizing her by the hair, dragged her back into the middle of the assembly room. And into his mind, because of the curse of King Drupada, there came an evil thought. 'I shall humble thee, thou proud Princess,' he cried. 'I shall strip off thy robes and set thee naked before all the nobles of Hastinapura'. And, as he spoke he seized Draupadi's garments and strove to tear them off her. But one of the kindly Immortals took pity on the sorrow of the dark Princess, and ordered it so that Prince Dashasan tore off her garments in vain. For as fast as he pulled them off, the God clothed her with fresh ones. At last Dashasan ceased and pushed her from him."

The book is admirably done and will realise the hope of the author "that in this little book my fellow officials may read and enjoy the summary of these Great Poems."

THE OXFORD STUDENTS' HISTORY OF INDIA, BY VINCENT A. SMITH, FIFTH EDITION, REVISED AND ENLARGED. (CLARENDON PRESS, OXFORD).

This little book which was originally designed "to meet the wants of students preparing for the Matriculation Examination of the Calcutta University, as defined in the latest syllabus" has now appeared again in a fifth edition indicating thereby that it clearly meets the need of a suitable text-book which had for long been a felt want.

This new edition is a complete revision and enlargement of the former ones and attempts to meet the wishes of experienced teachers "that the historical facts should be narrated in fuller detail, that the causes of important revolutions should be clearly explained, that the state of society in different periods should be described, that the story of India under the Crown should be told at greater length, that the narrative should be brought down to the present time, that a sketch of the nature of the sources or original authorities should be supplied, and that the number of maps and illustrations should be largely increased." This object has been attained by avoiding too much elaboration on the one hand and too much condensation on the other, special attention having been paid throughout to simplicity of language. The elaboration has been particularly in the Vedic age, in the Gupta period, in the History of Vijayanagar, the administration of Sher Shah, and various other subjects of later history which were treated with too much brevity in previous editions. In the Moghul period, the history of Akbar has been revised in the light of the Jesuit evidence, and that of his successors from the now accessible new sources of information. The book is, in its new form, quite a welcome addition to the available text-books on Indian History and, in spite of a few passages here and there where revision would seem called for in the light of new evidence, can safely be recommended for use in schools and even colleges.

THE LIFE OF THOMAS PITT, BY SIR CORNELIUS NEALE DALTON. (CAMBRIDGE UNIVERSITY PRESS). 1915. pp. x, 611. Price 15s. net.

To many of us Governor Pitt is no more than a mere name, significant only as the grand-father of the great Earl of Chatham and owner of the famous Pitt Diamond. Very few persons, and that only of late years, recognise the great value of the work done by Pitt; his successful completion of the fortifications of Madras, his development of the resources and trade of the settlement, and his heroic and successful resistance to the pretensions of the New Company and to the exorbitant claims of Daud Khan, the Moghul Fouladar of the Carnatic, his vigorous upholding of the prestige of his fellow-countrymen in the East—these entitle him to a more significant mention in the historical literature of British India. The scanty and indifferent references to him in Bruce's *Annals of the East India Company* (1810) and James Mill's *History of British India* are not

sufficiently atoned for even by later works like J. T. Wheeler's *Madras in the Olden Time* (1861). Mrs. F. Penny's *Port. St. George* (1900), Lawson's *Memories of Madras* (1905) and Colonel Love's ponderous tomes, *Vestiges of Old Madras* (1913). Sir Cornelius Dalton has worked up his biography from materials collected from Yule's *Hedges' Diary*, the *Dromore Papers* published by the Historical Manuscripts Commission and other un-published sources. He also counteracts the unmerited aspersions cast upon Pitt by the German biographer of Chatham (Von Ruville.)

The brusque and original personality of Pitt concealed qualities that stamped him as the ablest Englishman sent to India at this time. His interloping adventures at Balasore and elsewhere when "he paraded his trumpeters and red-coated guards on shore before the very walls of the Hughli Factory" made the Directors designate him as a desperate fellow, one that will not "stick at doing any mischief that lies within his power." Struggling for existence alike in Parliament and in the City, they came to terms with the Interlopers and appointed *Pirate Pitt*, Governor of Fort. St. George in 1698. By this time they seem to have lost all their former jealousy of his mercantile successes and reposed the greatest confidence in him. Nor did he fail to justify their trust. It was his characteristic that throughout his career, he never failed to serve his employers; whoever they might happen to be, faithfully and to the best of his great ability. His energetic and aggressive championship of the privileges of the Old Company, and his bold defiance of the representatives of the new were only equalled by his cordiality to the Directors of the latter, when the two were united. He wrote to them, "It was my Fate and not my choice that made me Your Enemy, and since you and My Masters are united, It shall be my utmost Endeavours to purchase Your Good Opinion and deserve Your Friendship."

The frequent caste troubles in the Black Town, which resulted in faction fights, disorganised trade and inconvenienced the English residents were quelled by Pitt with a firm hand, in spite of one section of his Council consistently thwarting his aims and efforts to bring about reconciliation. His negotiations with the Moghul Court in the days of uncertainty which followed the death of Aurangzib, as well as his diplomatic wrestling from the Nawab of the Carnatic the grant of the 'five towns' in the neighbourhood of Madras, "dimly shadowed forth the policy that conferred vast revenues and provinces on the English after

elevation of a people, the men who long ago stood in this same place to receive their degrees as these young men have done to-day? We gratefully recognise that in faculties that are concerned with the scientific professions there has been a marked advance arising from progress in teaching and equipment in these faculties. In the Faculty of Arts, however, which covers the largest portion of the field of our activity, can we say that the products of to-day stand above those of the earlier time or as far above them as we might in reason have expected?

It is not easy to give a simple answer to this question. In those early days it was the few, the select spirits of the time, who sought admission to the University; to-day it is the ambition of almost every one who has enjoyed the benefits of an English education to enter the University. We have no right to expect therefore that we should have the same proportion of outstanding men. The Telange and Ranades and Mehtas of that time were towering personalities in a very limited group. The successors of these men are to-day a small group amid a great multitude. My own conviction is that we have still among our graduates men of the same high order. We send to the West graduates capable of winning the highest honours in the University of London and we still furnish to Cambridge a Senior Wrangler or his modern substitute, as has been seen again this year in the distinction won by our Government of India scholar. But such outstanding successes now represent a small proportion of the men of our University. If we are to institute a comparison it ought to be based not on the exceptional achievement of the few but on the general result of the system as a whole.

I am afraid we must confess that, judged by this test, the amount of progress that has been achieved falls far short of our reasonable expectation. It is the duty of every one, who is devoted to the interests of this University and desires to serve it, to endeavour to discover the cause of the slowness of our progress. The reason is not far to seek. It is not to be found in any specific defects in our curricula of study; nor is it due to any lack of ardent students, earnest in the pursuit of knowledge, ready to make every kind of sacrifice, of comfort, ease and even of health in order to achieve their purpose. Students more willing to be taught and guided, young men and young women more eager for success are not to be found in any of the Universities of the world. The reason of which we

are in search lies elsewhere; it is to be sought in the process through which these students are made to pass on their way to the goal which we have set before them. It is because we as a University have been too forgetful of the fact that our University system is dependent for its efficiency on the kind of education which precedes the entrance of the student into the University. We have an excellent, well-organized system of elementary education and a University with syllabuses and curricula which, if adequately carried out, would place our graduates in high academic rank; but unfortunately the intermediate stage, the High School preparation, is entirely and practically our University standards are being lowered to meet this inadequate preparation.

University reform in any other sense is not one of our crying needs. What the University needs is, *well-prepared students*, students so thoroughly equipped with a knowledge of the language that is to be the sole medium of their future studies, so well-grounded in the fundamental branches of a sound general education, that the courses prescribed by the University may become a reality and may prove to the men who enter on them a means of growing knowledge and expanding joy. The University requires such an improvement in the quality of the students who enter it, that the life of these students shall not be one of overwhelming strain, ending too often in disappointment and failure, and such that the professors in our Colleges shall find it possible to give them of their best and assist them in becoming intellectually strong and free. To me it has long been manifest that except in the case of a few specially gifted young men the standard of preparedness on which the University insists under the present system fails to secure this; with the result that a student's first year at College is spent in carrying on a course of study which could have been pursued under far more favourable conditions and with far better result in school. It is a year misplaced and the consequences of this misplacement dog the unfortunate student all through his University career. The simple remedy is to place it where it ought to be and to begin the College course where this first year College course or, what it really is, this closing year of the school, ends. I suppose there are few who have had any experience of College work who would not endorse the conviction, at which many of us arrived long ago, that the Previous Examination as it used to be held by the University marked the real beginning

of College study in any proper sense of the term and that this was the real Matriculation Examination in our University. Increasing experience has driven this conviction further home and to many of us it has become a settled conviction which leaves no room for even the shadow of a doubt that this is the point at which admission to the University should take place.

The acceptance of this position, no doubt, involves a considerable task of reconstruction in our Secondary Education. It is a task which must be resolutely and courageously faced, in which Government and the University must heartily co-operate, if this University is to fulfil worthily its high function. To re-organize University courses is a comparatively simple process; to make these real and fruitful by increasing the efficiency of the education that is preliminary to them is a task that requires the patient remodelling of many agencies. The former is perhaps a more imposing process; but it is a thing of emptiness unless the latter is also faithfully performed. The attempt to accomplish the former without having first attended to the latter (and this is a view which I have often pressed in the meetings of our Senate) is as ill-considered as that of the builder who lavishes skill and expenditure on the upper structure which greatly impresses the onlooker, but neglects the lower parts of his fabric which, though they may not appeal so powerfully to the passer-by, are regarded by all who know as the things of chiefest moment. Such mistakes have been made in the history of this University. They can still be corrected by again looking to our foundations. And this we must do if our life and the lives of our students are not to be spent "in shallows and in miseries."

If any should be disposed to doubt the urgency of this need, let him peruse the reports of our Examiners which are in the hands of many of us and have been recently commented upon in the public press. I shall not quote here the indictments contained in several of these reports submitted by European and Indian Examiners, the most severe being those offered by an Indian who is himself a graduate of this University. I would only say that they support every word of my contention. They shew that only in the case of a limited number of our students, principally, though not exclusively, those who go in for Honours, are the performances of the candidates of high merit, while great numbers give unmistakable evidence of carelessness and inaccuracy due to the imperfect education with which they approached their University studies.

There is one class of remark, which frequently recurs in these reports, which seems to invite a deeper consideration of the methods of instruction pursued in our schools. These reports complain of a want of originality in the answers of candidates and allude to the prevalence of what is described as "unintelligent cram." Personally I should feel disposed to condone this alleged want of originality, for originality is scarcely to be expected in the ordinary student at this comparatively early stage. If by "cram" is meant the memorizing of results at which we have arrived by processes thoroughly understood, then "cram" is something practised by all men and not confined to the candidates at University examinations. It is essential to all progress for we cannot be always retracing our steps from the beginning. The mathematician must carry in his memory numerous formulæ every one of which he ought, however, to be able to re-discover whenever it may be necessary. "Unintelligent cram" is, I take it, the loading of the memory with propositions which are not understood, the very terms of which may be unintelligible to the user.

If this kind of "cram" is so prevalent as these reports seem to indicate, there must be a reason for it which ought to be inquired into. The conclusion at which I have arrived is, that it is intimately connected with the fact that so much is taught and attempted to be learned at too early a stage in a foreign tongue. When any subject has to be studied through the medium of a language not yet understood the tendency to "unintelligent cram" is inevitable. The case of such a student is like that of the youth without mathematical understanding who is being initiated into the mysteries of Euclid. If he has no conception of the things contained in these propositions and cannot think them out for himself he can at least commit Euclid's words to memory and in his despair he falls back on a power which all his young life he has learned to trust. He takes upon himself the dreary task of committing all these strange things to memory. His faith in the great geometer is unbounded and he learns to repeat his mystic statements from memory, with the result that he learns nothing of geometry except to hate the very name of it. Is there not a danger that the same thing may happen in regard to many other subjects besides mathematics? Unless the first conceptions are really grasped and clearly understood all real progress becomes hard, becomes indeed impossible.

should be attributed to four possible causes, plagiarism, independent parallelism, occasional contact, and a long and continued stay of the two nations in the same region, and he is in favour of the last view. The Sanskrit section contains two papers on Sanskrit studies in general and on *Āmatattvavivāhana*. The number contains also reviews and notes.

We wish the Journal a long and successful life, as it deserves to have.

PUBLICATIONS RECEIVED.

- The Boy Who Would Not Learn, by Herbert Strang. Oxford University Press. 6d.
 An Outline of Industrial History, by Edward Cressy. London: Macmillan. 3s 6d.
 Easy Conversational Lessons based on Aesop's Fables, by J. Parsons, B.A. Bombay. Cooper.
 Caesar and the Germans (Elementary Classics), by A. H. Davis, M.A. London: Macmillan. 8d.
 The Travancore Almanac and Directory for 1916. Govt. Press: Trivandrum.
 The Life and Adventures of Robinson Crusoe, abridged and edited by J. Hutchinson. London. Macmillan. 1s.
 Shakespeare's Winter's Tale, edited by A. J. F. Collins, M.A. London: Clive. 2s.
 A First Course of Geometry, by Charles Davison, Sc. D., Cambridge University Press. 1s. 6d.
 Selections from the Poems of Percy Bysshe Shelley, edited by A. Hamilton Thompson, M.A., F.S.A. Cambridge University Press. 2s. net.
 Books and Pamphlets from the C.L.S., Madras.
 Alfred the Great. 1a.
 Astronomy and Astrology in Telugu. 1a.
 William Ewart Gladstone. 1a.
 The Wonderful House I live in, in Telugu. 1a.
 Daily Light on the Daily Path, in Telugu.
 Books from the P. T. I. Book Depot, Bangalore.
 An Industrial Geography of Britain, by William J. Claxton. London: Harrap. 3d.
 Heroes of All Time: R.L. Stephenson, by Amy Cruse. 1s.; Sir Walter Scott, by Amy Cruse. 1s.; William the Conqueror, by René Francis. 1s. London: Harrap.
 Selections from Malory, by Agnes M. MacKenzie, M.A. London: Harrap. 1s. 3d.
 Heath's Shakespeare: Romeo and Juliet, by Robert Adger Law, Ph. D. London: Heath. 1s. 6d.
 My Book of Dolls, by Faith Ashford, B. Sc. London: Harrap. 4d.

Indian Educational Notes.

MADRAS.

The Salem Teachers' Association.—An ordinary meeting of the Salem Teachers' Association was recently held in the English Lecture Room of the Salem College, with M. R. Ry. C. Rajagopalachariar, Avl. B. A., B. L., a leading member of the local bar and a prominent citizen of the place in the chair. Mr. K. S. Srinivasa Aiyengar of the Salem College School Dept. read an interesting paper on the 'Teaching of Civics in Schools.' He regretted at the outset that while other civilised countries of the world were keenly alive to the imparting of instruction in subjects of civic and cosmopolitan interests, India alone should lag behind in her primary duty of national concern and look merely to spasmodic efforts of Congress and other Political bodies for her salvation. He referred to the teacher as an important limb in the body politic and within judicious limits and with requisite qualifications, the teacher was in his opinion the fittest man for the inculcation of civic ideas into the minds of the pupils. He regretted also the absence of a place for it in the School-Final Syllabus.

Mr. P. Seshadri, M.A., the Principal of the Salem College and the President of the Association, supported with his wonted eloquence the theme of the lecture and regretted the absence of suitable text-books on this delicate subject of civics containing accurate and impartial accounts. Mr. Rajagopalachariar in concluding the proceedings of the meeting, referred to the functional life of a nation as tested by the civic and cosmopolitan virtues displayed by the individuals composing it and emphasised the importance of the social aspect of the question in addition to its political aspect. The proper presentation of the subject lay in his opinion in the hands of a competent intelligent teacher. The meeting terminated with a vote of thanks to the Chairman.

Hindu High School Old Boys' Association.—The third annual gathering of the old boys of the Hindu High School, Triplicane, Madras, was held recently in the Singarachariar Hall. The past and present students and the staff of the school assembled in large numbers. Rao Bahadur M. A. Parthasarathi Aiyangar was "At Home" to the guests. The social gathering was followed by comic recitations and music. The last item of the programme was the public meeting at which Mr. M. O. Parthasarathi Aiyangar took the chair. Mr. Mangesha Row, the Headmaster, in calling upon the Hon'ble Mr. Srinivasa Sastri to unveil the portrait of the late Mr. T. A. Swaminatha Aiyar who had been connected with the institution for over twenty years, said that there was a peculiar appropriateness in it, for Mr. Srinivasa Sastri had been for a long time Mr. Swaminatha Aiyar's colleague and Head master of the school and had known him practically

throughout the whole of his lifetime. Mr. Swaminatha Aiyar was very happy in his relations with his staff and the boys of the school and he was very straightforward and outspoken. Before unveiling the portrait, the Hon'ble Mr. Srinivasa Sastri said that his desire was to enjoy the rare pleasure of having Mr. Swaminatha Aiyar by his side at that function. But that was not to be. All of a sudden he was taken away. Under the circumstances the fittest way of showing their respect and affection to the late Mr. Swaminatha Aiyar was to keep the original engagement. The relations which existed between the late Mr. Swaminatha Aiyar who was the first Assistant and himself as Headmaster was something far more intimate and cordial than usually obtained between two people standing in that relation. Mr. Swaminatha Aiyar entered the teaching profession with qualities fitted for a higher sphere. He had tact, ability and special talents in mathematics. Above all he was a thorough gentleman. He was quite contented with his position as teacher. He would never find fault with his assistants for trifles. He had a sort of discriminating blindness and deafness. The Hon'ble Mr. Srinivasa Sastri then unveiled the portrait amid loud applause.

The Secretary, Mr. K. N. Krishnaswami Aiyar, then read the annual report. A number of toasts were proposed and responded to. With a vote of thanks to the chair the meeting terminated.

The late Rao Bahadur C. Nagojee Rao.—It is with feelings of deep sorrow that we have to report the death of Rao Bahadur C. Nagojee Rao, at his residence at Coimbatore. The late Mr. Nagojee Rao was born and brought up at Coimbatore and passed the Matriculation Examination in 1867 and F. A. in 1868 from the Coimbatore College during the early years of the Principalship of the late Mr. Flanagan, M.A. He took his degree from the Presidency College and was among those favoured few who had the privilege to come under the influence of the late Mr. Thompson. Having graduated with credit in the year 1871, Mr. Nagojee Rao was at once employed on the staff of the Presidency College where he worked in various capacities and also as Assistant Professor of English for about seven years. He was afterwards connected with the Government College at Rajamundry and eventually became the first Indian Inspector of Schools in this Presidency. When the Indian Educational Service was remodelled, he preferred to be in the cadre of the Provincial Service and continued to serve as Inspector of Schools till he retired from service about eight years ago. On two important occasions he acted as Principal of the Government College at Kumbakonam. In recognition of his manifold services to the cause of education, he had been nominated a Fellow of the Madras University for many years and was decorated with the title of Rao Bahadur a few years ago. He was selected by Sir Arthur Lawley to deliver the Madras Convocation Address in 1906. Although he served in many parts of the Presidency, his last years were spent in the Circars. In later years Mr.

Nagojee Rao was busy trying better methods of teaching vernacular as well as English especially in the first stages. He was also busy trying to popularise Indian Music among schools and was for several years carrying on research work in South Indian Music with a view to place it on a scientific basis and was at the time of his death seriously engaged in writing a paper for the benefit of the All-India Musical Conference to be held shortly at Baroda.

Besides Educational matters Mr. Nagojee Rao's activities were always on the political and social as well as agricultural progress. In recent times he had been prominently connected with the cause of co-operation, having been Vice-President of the Coimbatore District Urban Bank and of the Coimbatore Building Societies. He was likewise connected with the Literary Associations, with the Free Public Library, with the Coimbatore College Committee and several other institutions. In fact there was not one public movement of importance at Coimbatore with which he was not prominently connected.

An Educational Conference.—The following notification has been published:—The Director of Public Instruction, Madras, will be requested to summon a Conference of officials and non officials for the purpose of discussing the following questions bearing on the Grant-in-Aid Code and the Madras Educational Rules:—

Whether any revision of the existing rates of fees prescribed for elementary schools under public management is required and if so, in what direction and to what extent is such revision desirable and feasible?

Whether the system of appropriation of fees by Head Masters of Elementary Schools under public management containing the four lower standards only should be continued, extended, restricted or abolished?

How far does the system of capitation allowances to trained teachers in schools under public management, tend (i) to encourage the employment of trained teachers, (ii) to induce and maintain a satisfactory attendance of pupils? and whether these objects could not be as well or better attained by such a revision of the scale of salaries of trained teachers as could be effected without increasing the total expenditure from public funds on salaries and capitation allowances.

Whether the last paragraph of rule 99 of the Madras Educational rules relating to the admission of pupils into Secondary from Elementary Schools should be modified or abrogated?

Whether capitation grants and allowances (if retained) should be graduated according to standards and if so how?

Whether the existing system of Grant-in-Aid to Secondary schools needs revision? If so in what respects and with what aim in view?

To consider and report on the list of backward classes and the principles and rules under which fee remissions or free admissions of pupils should be granted in (i) elementary and (ii) secondary schools under public management and the principles and rules under which capitation allowances and Grants-in-Aid on behalf of such pupils are assessed.

The Conference will meet on the 16th March 1916 and the following gentlemen will be appointed members of it:—

OFFICIAL MEMBERS.

Mr. H. J. Allen, Principal, Presidency College; Mr. H. S. Duncan, Principal, Teachers' College, Saidapet; Mr. R. Littlehales, on special duty (Secretary to the Conference); Mr. J. A. Yates, Inspector of Schools, 9th Circle; Mr. R. G. Grieve, Dy. Director of Public Instruction; Mr. H. Champion, Inspector of Schools; Mr. H. O. Kershaw, Prof. of Chemistry, Presidency College; Mr. C. Bainsford, Inspector of Schools, 1st Circle; Miss C. M. Lynch, Inspector of Schools, Central Circle; Miss Patterson, Inspector of Schools, Southern Circle; Rao Bahadur V. R. Venkatrama Iyer, Inspector of Schools, 2nd Circle; Khaja Khan Bahadur, Assistant Inspector of Schools; Mr. P. G. Vanchi Iyer, Assistant Inspector of Schools, Malabar; Mr. K. Natesa Iyer, Assistant Inspector of Schools, South Arcot.

NON-OFFICIAL MEMBERS.

The Hon'ble. Rao Bahadur M. Ramachandra Rao, Chairman, Municipal Council, Ellore; Hon'ble Rao Bahadur V. K. Ramanuja Chariar, Chairman, Municipal Council, Kumbakonam; The Hon'ble Mr. K. Rama Iyengar, Madras; the Hon'ble Mr. V. S. Srinivasa Sastri, Secretary, Hindu High School Committee, Triplicane; Rao Bahadur N. Subba Rao, Vice President, District Board, South Arcot; Mr. A. Santanarama Iyengar, Headmaster, V. R. High School, Nellore and Chairman, Municipal Council, Nellore; Mr. C. V. Narayanan Menon, Chairman, Municipal Council, Calicut; Mr. Yakub Hasan Sahib Bahadur, Correspondent of Vaniyambadi Madrasa-i-Islamiyah and a Commissioner of the Corporation of Madras; Mr. K. B. Ramanathan, Council of Indian Education and Professor, Pachaiappa's College, Madras; Mr. P. Subramania Iyer, Teachers' Guild, Pachaiappa's College; Dewan Bahadur L. A. Govindaraghava Iyer; Mr. K. Ganapathi Iyer, Berhampore; Mr. C. T. Parthasarathi Mudaliar, Chittoor; Rao Bahadur A. C. Pranabharthi Iyer; the Hon. Rev. G. Pittendrigh; Canon H. Smith, S. P. G., Madras; Miss P. Grover, Church Missionary Society and Church of England Zenana Missionary Society; The Rev. A. W. Brough, London Mission Society, Erode; The Rev. C. H. Monahan, Chairman, Wesleyan Mission, Madras; Rev. J. H. Maclean, Secretary, United Free Church Mission, Conjeevaram; Rev. J. Aberty, President, Lutheran Missionary Conference, Guntur; Rev. W. L. Ferguson, Treasurer, American Baptist Mission, Madras; Rev.

L. C. Powers, American Madura Mission, Madura; Rev. F. Bertram, S. J., Principal, St. Joseph's College, Trichinopoly; The Rev. C. Perazzi, S. J., Principal, St. Aloysius College, Mangalore.

3. The non-official members who attend the Conference will be granted travelling allowance under the C. S. R. at the rate allowed to first class officers.

4. The Director of Public Instruction will be requested to forward to the Government a report of the proceedings of the Conference with his own remarks on the recommendations made by them.

Presidency College Mathematics Association.—

The second anniversary meeting of the Presidency College Mathematics Association was held recently in the College Hall, with Mr. R. Littlehales, of the Presidency College, in the chair. There was a large gathering of students present including the Professors.

In opening the proceedings, Mr. A. Narasinga Rao, of the Christian College, referred to the deep loss the Association had sustained in the untimely death of their President Mr. E. W. Middlemast, whose ready sympathy and extraordinary devotion to duty had endeared him to all the students of the College, and requested the Chairman to unveil the portrait of the late Mr. Middlemast. The Chairman in unveiling the portrait referred to the sound judgment and extraordinary business ability of Mr. Middlemast whom it was indeed very hard to replace. Mr. J. H. Allen, Principal of the College, then spoke of his several personal recollections of the deceased, whom he knew very intimately and whose straightforwardness and thoroughness were quite uncommon. After music and recitations, Mr. C. Krishnamachary, Secretary of the Association, read the annual report, which showed that the Association was started in the year 1913 with the object of promoting the Mathematical knowledge of its members and stimulating in them a spirit of free and independent research work. During the period under report there have been eleven meetings as against thirteen for the years 1913—15. Their strength has also considerably increased, the number of members rising from twenty-five to thirty-six.

The Hindu High School Literary Society.—

Under the auspices of the above Society, a public meeting was held recently in the Singrachariar Hall, Triplicane, Madras, when an address on the 'Public Schools in England' was delivered by Mr. M. R. Subba Row, B.A., L.T., before a large gathering of students and gentlemen. In the unavoidable absence of Mr. H. O. Kershaw, Professor, Presidency College, the chair was occupied by Mr. K. Mangesha Rao, the Head Master of the School.

The lecturer traced the history of Secondary Education in England from the 15th century, and pointed out how the two great movements, the Re-

naissance and the Reformation affected the ideals of the English education and why there was a tinge of the monastic atmosphere in that education. He contrasted the State-aided and highly-centralised systems of Germany and France, with the freedom and individuality of that of England. The institutions of England reflected the spirit of the practical Anglo-Saxon. Coming to the 19th-century reference was made to the work of Dr. Arnold, how he changed as it were the face of education throughout England, what plans he adopted to improve the tone of school and to instil habits of moral thoughtfulness and devotion to duty in the minds of students. Rugby might be called the centre of the world of Secondary education and the Mecca of the educated youth of the British Empire. Dr. Arnold deserved to be called "a hero as a school master."

The Chairman observed in his concluding remarks, that the success and greatness of Dr. Arnold depended on his tact, and on his having had a free hand in his noble work. With the usual votes of thanks to the lecturer and the Chairman, the proceedings came to a close.

Leo XIII H. G. S. School, Alleppey.—The fourth anniversary of the Leo XIII H. G. S. School Literary and Debating Society was held on the 11th instant at 6:30 p.m. in the presence of a very large and appreciative gathering consisting of the elite of the town with Mr. G. H. Davey, of Messrs. Darragh Snail & Co., Ltd., in the chair. Amongst others present were Captain W. L. and Mrs. Kelly, the Rev. W. S. and Mrs. Hunt, Mr. Stephens of the Bank of Madras. There was a sprinkling of Indian ladies also. The meeting was held on the Tennis ground and the premises were tastefully decorated with flags, bunting and festoons and were illuminated. A beautiful stage also was erected. The proceedings opened with a welcome song by the school choir. It was very picturesque, and it drew forth a volume of applause. The Secretary, Mr. C. Nowroji, then presented the report which was a record of satisfactory work, there being 22 meetings during the year. A beautiful solo was next sung by Br. Trindade which was much appreciated. The Rev. Mr. Hunt then rose amidst loud cheers and delivered a very interesting address. An elocution competition, which was keenly contested, was another attractive feature. A picturesque Union Jack flag drill was splendidly gone through by 16 boys, all clad in white uniform, to the accompaniment of piano. After a Malayalam action song a few scenes from Julius Caesar were enacted with art and skill. The Chairman next offered a few remarks. Mr. M. K. George, B.A., L.T., the Headmaster, then proposed votes of thanks to the Chairman, Lecturer and the audience and after lusty cheers to the King-Emperor and the Maharaja, the singing of the National Anthem brought a very enjoyable evening to a close.

Muhammadan-Education.—Mr. F. J. Richards, M.A., I.C.S., the Collector of North Arcot, presided at a well-attended meeting of the Muhammedans of Melvisharam. He called attention to the backwardness of the Muhammadan community in pursuits requiring higher education. "This was due in his opinion to the one-sided education which the Muhammadan children received. Among their children there must be several who were anxious to study for higher than the elementary standard but could not do so for lack of opportunities. Any assistance rendered to them would in the long run prove a real gain to the community. What had been possible at Vaniyambadi could not be impossible at Visharam and Mr. Richards exhorted those assembled to unite together and improve the educational facilities available for their children. Every one of their children who were of school-going age seemed to be at school, for their total population was only about 7,000 and the number of their boys and girls who were undergoing instruction at present was 1,200. There were 23 elementary schools in their village and of these the one that was managed by the Local Board had a strength of 304 pupils of whom all but 20 were Muhammedans. Of the 27 boys in the fourth class, five were those who had successfully undergone the same course of instruction during the previous year and he was also told that several boys had had to go to Madras and Bangalore for further education. If this could be provided locally there could be no doubt that a large number would obtain secondary education and prove more useful to the community.

Native High School, Palghat.—The Rajah of Kollengode presided on the 5th instant at a largely attended public meeting held to commemorate the 30th anniversary of the founding of the above institution. The large rectangle opposite the main building was filled to overflowing. The large number of guests as they arrived were treated to light refreshments and tea after which the company was entertained with Indian music. The Rajah of Kollengode was unanimously voted to the chair. The Rajah said in the course of his speech:—Now in this 20th century when we see culture and education spread so widely amongst a great many of us, when we see schools and colleges in every important place flourishing and our community teeming with highly trained lawyers, doctors, engineers and others, men turned out of our own colleges and Universities we cannot but feel thankful to our benign Government and to those who have so nobly supplemented their efforts in the cause of education. At the same time we cannot but help feeling that a great deal more yet remains to be done. And never before has the cry been more insistent for further extension, development and reform in the field of education than at present. Being educated, we feel the need for education and the diffusion of it among the masses. This recognition on our part of the necessity for the spread of education has at once been the aim, incen-

tive and reward for the maintenance of various schools, including Panchama schools and colleges and other educational institutions in our country by private persons in recent times. It is a happy augury that things are progressing so far that great Universities along national lines are not only thought of and talked about in these days but planned and carried out. And the idea of the Benares University, a University on national and Hindu lines has actually crystallised into solid shape. Mr. V. V. Parameswara Iyer, your Manager, deserves hearty congratulations at our hands. He is entitled to be called one of the pioneers of education in this district and I have no doubt he will be long remembered with gratitude for the public services he has rendered. He has overcome difficulties and surmounted obstacles and has brought the school to its present efficient condition. For his bold attempt we admire him and on his success we congratulate him. It is very appropriate that you should celebrate the anniversary of your school, year after year, and should embrace that opportunity to express your appreciation of the Manager's work.

In introducing Mr. Seghadri, Principal, Salem College, the Rajah of Kollegal said that he was one of the most distinguished educationists of the Presidency deservedly held in esteem and respect by the rising generation and the public at large. The lecturer then delivered his address on "Foreign Civilisations in India."

The P. S. High School, Mylapore.—In pursuance of the desire of many of the residents of the streets adjoining the Madavaperumal Goli at Mylapore, the Board of Trustees of P. S. Charities, Mylapore, opened a branch Primary School at the locality. The Chairman Rao Sahib C. Ramanujam Chettiar in opening the school delivered an interesting speech. He desired that, in these institutions, primarily intended for the imparting of instruction in the three R's, provision should be made for imparting besides moral and religious instruction, such technical instruction, as may find favour in the locality, for it was this latter alone that was likely to be pursued on leaving school. He expressed the hope that these elementary institutions will receive liberal Grants-in-aid from the Government, so that they may work on the most up-to-date lines and to the best advantage of the taught. He added that in these days, when education had come to be too costly for even the middle class men, the upkeep of institutions was no small task. If liberal endowments like those of Pachaiyappa Mudaliar's have been found inadequate, a strong case was made out to supplement such generous gifts from time to time. He was sure that in a place like Mylapore, where live the elite of the city no public enterprise will suffer for want of support, financial or otherwise. Mr. A. Panchapagesa Aiyar, M.A., L.T., Headmaster of the P. S. High School, Mylapore, delivered a short speech dwelling upon the necessity for the establishment of the Primary School and of many

more such institutions in the suburb. Mr. R. Krishnamachariar, B.A., on behalf of the locality thanked the Board of Trustees, P. S. Charities, for having kindly opened a branch for the convenience of the children of the locality who were labouring under a great disadvantage in having to send their children to distant schools with the attendant risk from the motor, and vehicle traffic, not to speak of the tram cars. Fruits and *pan supari* were distributed to those present. With a vote of thanks to the Chair proposed by Rao Bahadur S. Ramaswami Aiyangar, B.A., B.L., the interesting function came to a close.

Elementary Teachers' Association, Palghat.—The Anniversary of the Elementary Teachers' Association, Palghat, was celebrated recently, Mr. R. Sekhara Menon, Municipal Chairman, presiding. The proceedings commenced with prayer after which some interesting songs were gone through. Mr. V. C. Vijendram Chettiar, the energetic Secretary, read the annual report which was a record of satisfactory work done. Then a drama, entitled *Krishnarajuna Vijayam*, was successfully staged. The President wound up the proceedings in a short speech complimenting the actors and the members of the Association on the useful work they have been doing. The same day in the noon a Conference of Elementary School Teachers was held at Ottapalam in the hall of the local Mission School. Mr. P. G. Vanchi Iyer, Assistant Inspector of Schools, was in the chair. An interesting lecture on the Elements of Teaching Science in the lower classes was delivered by Mr. T. S. Venkatarama Ayyar and this was followed by a Malayalam lecture on 'Progress' by the Senior Malayalam Pandit of the High School, Mr. Chellu Ezhuthachan.

Government Orders.

The Government have sanctioned certain transitory regulations of the University of Madras providing for the holding of the F. L. and the B. L. Degree examinations under the old regulations in October 1916 and 1917 in addition to the usual examinations in April.

The Government accept with thanks the offer of Rs. 300 collected by the students of the Presidency College to endow a prize tenable in the Presidency College, Madras, with a view to perpetuating the memory of the late Mr. J. H. Mackintosh.

BOMBAY.

Lord Willingdon at Rajkot College.—As ex-officio President of the Rajkumar College at Rajkot, His Excellency took the chair at a meeting of the Council of Management of the College, and delivered an interesting address, in the course of which he complimented the Council of Management for taking the medal of the educational system of Great English public schools, aiming at harmonious

development of mind and body, along with the development of character. His Excellency advised the Council of Management to abolish the practice of allowing Kumars to be accompanied by Musahabs and personal attendants. "The best companions for your boys," His Excellency said "should be their fellows and contemporaries in the College. Every influence which tends to impair the advantage to be earned by Kumars associating on terms of friendship and equality with each other is a detrimental influence. An English boy, whatever his rank or condition, goes to school to make his own way and to make his own friends. You should encourage yours to do the same. My advice, therefore, is that you should discontinue the practice altogether. But if you are not prepared to do this immediately, it is at least advisable that you should not permit attendance of any Musahabs, who are not educated and fitted by their manners and characters for such employment, and that, in as many cases as possible you should dispense with them entirely. As regards personal servants, such thing is unknown in an English school even in the case of Princes of the Royal House. The presence of such servants trained to subservience and flattery must go in no inconsiderable way to counteract the benefits of school life. The staff of the College servants should, if necessary, be increased so that the necessity for such attendants may not exist. His Excellency advised them also to consider the possibility of extending to the sisters the benefits of education.

Free Meals for School Children.—In the latest number of the popular Marathi journal, the *Navayug*, Rao Bahadur K. V. Shurangpani, ex-Judge of the Baroda Chief Court, gives an interesting account of the system of State feeding of school children, which has been introduced in the capital of the State since last August. Such free meals for school children in the primary standards are a feature of the educational systems of most of the civilised countries of the West, including Great Britain. In a way they are a corollary to the system of free and compulsory education of children prevailing in these countries. The practice is intended to obviate the risks of under-feeding or ill feeding which school children are liable to run at the hands of their indigent or negligent parents and guardians.

CALCUTTA.

Calcutta Mathematical Society.—An ordinary meeting of the Calcutta Mathematical Society was held recently at the University College of Science. The Hon'ble Justice Sir Asutosh Mookerjee, C.S.I., presided. Among the members present were Sir Ghoroodas Banerjee, Dr. Young, Dr. Ganesh Prasad, Mr. C. V. Raman, Rai Sahib A.C. Bose, Dr. Syamadas Mookerjee, Prof. K. P. Chattaraj and Messrs. Nabagaurang Basak, N. K. Mazumdar, Nibaranchandra Ray, Surendramadhab Mallik, Manmathnath Ray, Su-

dhans Kumar Banerjee and Nagendranath Sarnakar. After the reading of papers and the election of some new members, a farewell reception was held in honour of Dr. Young, Sc. D., F.R.S., Hardinge Professor of Mathematics. This function was opened with a speech by Dr. Ganesh Prasad, Sir Rashbehary Ghose, Professor of Mathematics giving a short and interesting account of Professor Young's mathematical activities for a period of nearly 30 years. The Hon'ble the President, Justice Sir Asutosh Mookerjee expressed his appreciation of the services rendered by Dr. Young to the cause of higher education in India, and to Mathematics particularly. He was sorry that Dr. Young was unable to continue his stay in this country any longer because of his bad health. Sir Asutosh Mookerjee expressed the hope that Dr. Young would continue to take an interest in the Calcutta University even after severing his official connection with it.

Prof. Young thanked the Hon'ble the President and the members of the Calcutta Mathematical Society for their kind reception, and assured them that the welfare of India would always be dear to his heart even in his retirement.

An unfortunate incident in the Presidency College.—A very regrettable incident occurred in the Presidency College very recently. Prof. Oaten was severely assaulted by a number of students.

It seems that after the dismissal of their class the First Year Chemistry students were passing along the corridor by the only path which the students could avail of and in doing so, they had to proceed by a room in which Prof. Oaten was lecturing. Mr. Oaten felt annoyed, came out of his room and is said to have caught hold of one of the students by the neck, and called him a rascal. He then took him to the office room, and fined him Re. 1.

The student in question who is said to be barely 16, thereupon lodged a complaint before the Principal and awaited decision. The Principal, however, instead of taking immediate action, postponed the matter till 3 p.m. Meanwhile, the news spread all over the College and the students in general felt aggrieved specially as Mr. Oaten had behaved himself similarly on two former occasions.

Now sometime after the above incident, when Mr. Oaten was coming downstairs and passing through a number of students who had collected in the corridor in front of the common room, he received a blow from behind, and as he turned to see his assailant another student who was standing close by sprang upon him and threw him on the ground. Thereupon several other

students fell upon the helpless Professor and committed a savage assault upon him.

After the incident, the Principal made an enquiry into the matter but the culprits, so far, remain yet undetected.

A GOVERNMENT COMMUNIQUE.

The following is the full report which has been received by Government of the facts as to the assault committed upon Professor Oaten of the Presidency College on Tuesday, the 15th instant. Shortly before 1 p.m. when Mr. Oaten was still lecturing to the Fifth Year Class students in the History Senior on the 1st floor of the College, he was disturbed by a number of students passing along the veranda outside the room talking loudly. There being a strict rule of the College, to which the attention of the students had been frequently called quite recently, that there is to be no talking in the corridor or passages, he went out of his room and remonstrated with those students and told them that they must not talk. He then turned back towards his lecture room and he was just re-entering it when one of the students called out loudly some remark which Mr. Oaten did not catch, to one of his companions. He turned back at once and went up to the student who had spoken and took him quietly by the arm and led him to the Steward's Room, which was close by, and had his name recorded for a fine of Rs. one. Mr. Oaten considered it necessary to put his hand on the student to pick him out from the crowd of other students around him, but the youth did not resist and he employed no force in leading him to the Steward's Room. Mr. Oaten states that he did not call the boy a "rascal," as alleged by him. Mr. Oaten then returned to his lecture room and reported the matter to the Principal in writing. He continued his work and shortly afterwards received a note from Mr. James saying that the boy who had been fined had complained to him and that he wished Mr. Oaten to meet the boy in the Principal's room at 3 o'clock.

Just before 3 o'clock Mr. Oaten left his room and went down the main staircase to the ground-floor in order to affix a notice concerning some athletic sports on the Notice Board near the foot of the stairs. There were no students on the stairs as he went down, but he noticed a group of youths, whom he believes to have been students of the College, standing at the bottom of the staircase. He states that he did not recognise any of them and does not think that the group contained any students belonging to his own classes. He believes from what

happened immediately afterwards that these students had been waiting for him. On reaching the bottom of the staircase he passed through the group and had taken only a few steps from the foot of the stairs when he was attacked from behind and knocked down on to his hands and knees. He was then struck and kicked by some 15 assailants while he was prevented by blows and pressure from regaining his feet. He was kicked about his head and all over the body. Then the assault suddenly stopped, his assailants ran away, and he found that Mr. Gilchrist, a fellow Professor, was standing by his side. He believes that the whole assault must have occupied about 40 seconds.

Mr. Oaten states that the story which has been published in the Press alleging constant friction between him and his classes, culminating in a general appeal by the students to Mr. James against him is entirely untrue, and this is corroborated by Mr. James, the Principal. Mr. Oaten states that he is on cordial terms with all the students of his History classes, which are composed of 3rd and 4th year students for the B.A. and 5th and 6th year students for the M.A. and he is confident that none of these students took part in the assault.

The following Resolution has been issued by the Government of Bengal, General Department, (Education):—In consequence of the recent assault made by the students of the Presidency College upon Mr. E. F. Oaten, one of the Professors of the College, the Government has found it desirable to close the College for the present and to appoint a Committee of Enquiry.

The Committee will be constituted as follows:—

1. The Hon'ble Sir Ashutosh Mukherji, Kt., C.S.I. M.A., D.L.—President.

2. The Hon'ble Mr. W. W. Hornell, M.A., D.P.I.—Member.

3. Mr. H. R. James, M.A., Principal, Presy. College—Member.

4. The Rev. J. Mitchell, M.A., F. R. A. S., Principal, Wesleyan College, Bankura—Member.

5. Mr. Heramba Chandra Maitra, M.A., Principal, City College—Member.

6. Mr. R. B. Steele, I. C. S.—Secretary.

The Committee will inquire into the general condition of discipline at the Presidency College, with special reference to the strike which occurred in January last, and the recent attack upon Professor Oaten, and will make recommendations,

The Committee of Enquiry appointed by the Government to consider the question of discipline in the Presidency College with special reference to the strike of the students which took place in January and the recent assault on Professor Oaten commenced its sittings on Monday afternoon, the 21st February 1916, at 2-30 p.m. in Sir Ashutosh Mukherji's Chambers at the High Court. Sir Ashutosh Mukherji presided and all the members were present. Professor Peake attended, but not Principal James. It transpired subsequently that Principal James having expressed his inability to serve on the Committee, Professor Peake was appointed in his place. It is understood that nothing more than a formal discussion on the scope of the enquiry was gone through this afternoon and the Committee will sit from day to day for some days as the scope of the enquiry is believed to be wide. It is expected that a number of Professors and students of the College will be examined as witnesses. It is likely that the members of the Committee will visit the College during the course of the proceedings to inspect the place where the assault on Professor Oaten was committed.

The National Medical College of India.—An enthusiastic meeting of the staff and students of the National Medical College of India was held on 15th instant. Dr. S. K. Mullick, M. S., M. D., presided, and proposed from the chair the following resolution:—

"That the National Medical College of India thanks the Hon'ble Sir Pardey Lukis, Director-General, for his sympathetic reference in the Imperial Council regarding the affiliation of this College to the State Medical Faculty."

Dr. Mullick welcomed this announcement as a long step in the solution of that very acute problem, viz., the amelioration of the condition of suffering humanity. Dr. Mullick had preached in season and out of season on the necessity of more medical men for the remote mofussil where the poor were dying like wayside animals accepting disease and death as the predestined culmination of their tragic lives. He had done his best in the foundation of the National Medical College which he was proud to say had attracted scholars from the Himalayas to Cape Comorin. They had gone out after a training of 4 or 5 years as the avenging knight-templars battling against suffering and sickness. So far he had been as one crying in the wilderness. The non-official medical institutions had passed through the stages of misconception, doubt and ridicule. They were however, coming into their own and

whilst thanking Sir Pardey Lukis for his sympathetic references, he trusted that the authorities would treat them at this transition period of their affiliation with consideration and with due regard to the difficulties that may arise, financial and technical. He would be wanting in gratitude if he did not refer in this connection to the Hon'ble Surgeon-General W. R. Edwade, M.D., I.M.S. As the Surgeon-General of Bengal, he had proved himself most sympathetic to them. He desired to pay him a personal tribute too. Much of the success they had attained was due to him for he had brought a most detached and impartial mind to bear on the problems presented to him.

The resolution was passed with enthusiasm.

PUNJAB.

Education of Women.—A representative and influential meeting of ladies was held at Raja Dhian Singh's Haveli, Lahore, on the 23rd January '16 to consider the question of education of Indian women.

The meeting was attended by a select body of ladies, not of one party or community but of different parties and sects with a united sense of greater responsibility, many of whom were themselves educated in the highest sense of the term and actively participated in the cause of female education by conducting educational institutions often at a great cost of time, labour and money to themselves for the betterment of their sisters. The mass of ladies who composed an audience of nearly five hundred under their different leaders, took the cue from their more enlightened sisters and contributed towards keeping up the decorum and dignity of the meeting.

After the President, Srimati Sarala Devi Chaudrani, B.A. had taken the chair, the meeting was opened with a song by a batch of ladies who had come specially prepared for it. Then the President read out the contents of an English letter from Begam Sahiba Nawab Zulfikar Ali Khan Sahib, one of the conveners of the meeting, and explained its purport in the vernacular. The letter ran as follows:—

"I have great sympathy for female education and I wish our ignorant sisters would get some light to make them and their homes cheerful. The sorrow and misery of ignorance are something appalling and we all hope that the Government of India would take up the question in right earnest. Unfortunately our own indifference and apathy has been in our way. The U. P. Government have been much disappointed on account of non-attendance of girls at several schools which had to be closed. I am sorry to say my health does not permit me to go out and I therefore hope you will excuse me for not attending the meetings."

After this the resolutions given below were moved, seconded and supported by ladies representing different communities and carried out unanimously. Ferozepore, Ludhiana, Delhi, Multan and Quetta are the outstations which were represented in this meeting of Punjabi ladies at Lahore.

At the commencement of each new resolution, the President explained the subject matter elaborately so as to bring within the grasp of everybody present, and sometimes she supplemented the speeches of speakers with a few remarks and illustrations wherever it was so required. Srimati Sushila Devi of Ferozepore, Devi Samaj Girls' School, Srimati Kushalya Devi Shastri of Queen Mary's College, Srimati Bikash Devi of Maharani Burdwan Girls' School, Srimati Santi Devi, of Wachhowali Arya Samaj, Bibi Savitri Devi, daughter of the President, Khalsa Prachar Sabha; Srimati Ishwar Kaur, President of Anarkali Arya Stri Samaj, are some of the speakers whose speeches were specially appreciated.

RESOLUTIONS.

The following resolutions were passed at the meeting:—

I. That this meeting of Indian ladies of the Punjab of various creeds and communities, desires to point out that the co-operation of the educated Indian ladies is the first and the foremost requisite for the furtherance of female education in this country and urges the Government of India to direct the Education Department to enlist such co-operation and sympathy by associating them with all movements for the furtherance of female education as well as with all Government and Municipal institutions for girls or women either as visitors or in any other capacity.

II. That this meeting is of opinion that the time has come for a distinct step forward in the matter of female education and urges that an enquiry be set on foot either by the appointment of a non official committee, composed mostly of Indian ladies and gentlemen, specially interested in the education of women, or by other suitable methods for ascertaining the defects of the present system of female education and for suggesting means for its improvement and extension.

III. That this meeting recommends that pending the result of the aforesaid enquiry and having in view the present financial difficulties of Government the following steps be taken for the furtherance of the cause of female education:—

(a) That in the lower primary classes, specially in rural areas the existing schools for boys be converted into mixed schools for the boys and girls up to the age of eight.

(b) That a number of stipends and prizes be offered as inducement to the parents for sending their girls to such schools.

(c) That in the urban areas the Municipal Boards be required to open as many girls' schools for primary and secondary education as their finances

permit, and that a visiting committee of Indian ladies be appointed in each municipal area for these schools.

(d) That proper facilities be given to the members of these visiting committees for supervision of these girls' schools and suitable arrangements be made for their conveyance.

(e) That the Municipal and District Boards be required to allot a portion of their funds for starting classes where they do not exist like those inaugurated by the Bharat Stree Mahamandal in its Calcutta, Allahabad and Lahore branches, for married women and grown up girls (who are not allowed by the custom of the society to attend public schools) and to help such classes where they exist for the teaching of the three R's, hygiene and domestic economy.

(f) That the management and the control of such classes be entrusted solely to a non-official committee of Indian ladies, the function of the Education Department being confined merely to advise any helpful suggestions without any control.

IV. That this meeting is of opinion that the additional expenditure that will be thrown upon the Municipal and District Boards can be met from a re-adjustment of the finances of these bodies pending increased contribution by the Government.

V. That this meeting urges upon the Government of India to give practical effect to its resolution, dated 21st February 1913 in which the latter recognized the necessity of organizing the education of girls and recommends that the following measures be taken as soon as the finances permit:—

(i) The starting of model high schools for girls in every provincial town in which provision should be made for training in the practical domestic sciences as well as in the higher intellectual subjects to suit all tastes and aptitudes.

(ii) Liberal provision of scholarships to induce girls and widows to join the teaching, medical, midwifery, nursing, and other professional vocations.

(iii) Technical schools in provincial towns under the supervision of Indian ladies committee where poor women and widows can acquire a knowledge of useful arts and crafts by which they can earn their livelihood.

(iv) That classes for moral instruction be opened in every area (rural as well as municipal) under the supervision of Indian ladies.

(v) That this meeting authorises the President to draw up and submit a memorial to the Governor-General in Council, urging attention to aforesaid resolutions.

(vi) That a copy of the foregoing resolutions be sent to all Municipal and District Boards in the province and to the press.—*The Punjabee.*

The Punjab Historical Society.—At the annual meeting of the Punjab Historical Society held recently at the Senate Hall, after business

meeting Professor Leonard read a very interesting, instructive and thoughtful paper on the University ideals. The learned professor began with the development of learning and the beginning of University in Europe, its rapid progress throughout the continent, what it was in the middle age and what it is now and showed very clearly what University ideals ought to be. He pointed out that not only good education, but the best education was needed to-day—education which will mould the whole being of man. Universities wanted the best teachers, trained men who can put the highest ideals before the students. Mr. Justice Shadhin in thanking Professor Leonard for his learned lecture pointed out the defects of the Punjab University and said that the University was not developing ideals which the professor placed before them.

Nawab Zulfikar Ali Khan dwelt at length on the development of learning in Europe from Socrates to modern times and tried to point out that Asia also did the same thing in learning.

Pandit Sheo Narain read passages from books pointing out the fact that the idea of a Residential University was not new in India and read a description of Nalanda University of Buddhist age. He said close touch and affectionate relation of teacher and student was needed in education.

The meeting dispersed after a vote of thanks to Professor Leonard from the chair.

DELHI.

Lady Hardinge Medical College.—His Excellency the Viceroy opened the Lady Hardinge Medical College for Women in New Delhi on the 17th instant in the presence of a large and brilliant assemblage including Lady Willingdon, Lord Carmichael, Sir Beauchamp Duff, the Maharajah of Gwalior, Patiala, Bikaner and Jind, the Begum of Bhopal, the Maharaja of Kotah, General Sir Shumsher Jung of Nepal, members of the Imperial Legislative Council and other leading residents. The scheme was explained in an address read by Sir Pardey Lukis, President of the Committee.

His Excellency in reply said:—

Your Excellency, your Highnesses, ladies and gentlemen:—It is with the utmost diffidence that I have acceded to the request of Sir Pardey Lukis and the Managing Committee to open to-day this Medical College and Hospital for Women, for I feel how unworthily I fill the place of her to whose conception, initiative and energy the realization of this enterprise is due. The recollection of the ceremony that took place in these grounds exactly 23 months ago remains a vivid memory to many of us, and it has, I know, spurred on all those who have been concerned with the scheme to strain every nerve to assure that the blessings to be derived from this institution should be realised with the least possible delay. For me this institution will always

have tender but happy associations. I have watched its inception, its beginning and its growth with much personal interest and affection, and I realize from the efforts successfully made to push it forward that it has been the wish of many that I might have the privilege of opening these buildings before I leave India in a few weeks' time. I shall never forget the kind reception given by my friends the Ruling Princes of India and many other Indian friends to the suggestion to found a medical college for women at Delhi. As you will have gathered from the long list given by Sir Pardey Lukis of contributions and gifts made by them and by other well-known notables of India they have been most lavish and generous in their donations and I can only express my deep sense of gratitude to their Highnesses and to the other numerous subscribers at whose further suggestion it was decided to embody this institution as a memorial to Lady Hardinge. On behalf of my family and myself I wish to express our sincere and grateful appreciation, for we feel that no more fitting memorial could be raised to one whose love for India and for Indian women and children was the one guiding light directing her endeavours for the advancement of women and for the relief of suffering amongst them. I feel that the work of this college will be a continuation of that endeavour and a constant reminder to you all who were amongst her best and most cherished friends that in this great labour of love she has left footprints in the sands of time that can never be effaced and has helped to bring England and India closer together.

MYSORE.

Special Schemes of Instruction.—[Govt. Order No. 3545-8—Edn. 25-15-27, dated 26th January, 1916.] The Secretary, Education Committee, states that as much difficulty is now felt in providing funds for starting classes for special instruction of the kinds enumerated in the preamble, (Continuation, Improvement, Adult Home Education, minor industrial and other classes of special instruction) a grant of Rs. 25,000 may be placed at the disposal of that Committee to enable it and the District Committees to open such classes as an experimental measure, and transfer them to the Education Department after they have begun to work satisfactorily. Government consider that there can be no objection to afford some facilities to the Education Committee and the District Committees to carry on special schemes of instruction of the kinds referred to which are outside the regular work of the Education Department. They are therefore pleased to sanction a grant of Rs. 10,000 for this purpose. The grant will be utilized subject to the following rules:—(a) The Education Committee will, in consultation with the District Committees, apportion this amount among the eight districts in accordance with their requirements. (b) The Committee should frame rules indicating the conditions under which the grants will be made and defining the limits within which the grant may be

sanctioned by the District Committees and the Education Committee respectively. (c) No grant should be made for more than six months, and the total grant in the case of a single institution should not exceed Rs. 200. (d) As soon as a grant is sanctioned, the fact should be intimated to the Inspector-General of Education who will arrange to get the institution inspected departmentally at the end of the term for which the initial grant is sanctioned; and if the school is working satisfactorily will arrange either to take over the school under the management of the Education Department or for a further continuance of the grant from that Department for such period as may be necessary. (e) The Education Committee will be allowed complete latitude within the limits of the funds at their disposal in developing these institutions, while they are in an experimental stage, but in all technical matters the schools will be subject to the general authority of the Inspector-General of Education, and the officers of the Education Department will be at liberty at all times to inspect the schools and take steps to have the grant withdrawn or stopped if at any time it is found that the amount is not properly utilized.

2. The Inspector-General of Education is re-

quested to arrange to provide the sum of Rs. 10,000 required for this year out of the sums at his disposal and apply for an additional grant should this be found absolutely necessary later on. Suitable provision will be made in the budgets from next year.

Government Commercial School, Bangalore.—Under the auspices of the above school, a series of seven lectures on Banking, six on Accounts and Auditing, and six on Statistics will be delivered in the Government High School Hall during the current and the next months. Mr. Rose of the Mysore Bank will lecture on Banking, Mr. S. Shamanna, Assistant Financial Secretary, on Accounts and Auditing, and Mr. A. V. Ramaswathan, Assistant Secretary on Statistics. There will be an interval of about 4 to 6 days between any two consecutive lectures on each subject. All are cordially invited to attend. An attendance will be taken in case of those who desire to secure a certificate of having attended all the lectures on a subject. It is trusted that merchants, students and officials in general will avail themselves of this opportunity. Syllabuses can be had from the Headmaster.

Insight into Zemindari Life VIJAYAKARUNYAM A ROMANCE IN TAMIL

BY
MR. A. BALAKRISHNAN, B.A.

Tutor in Philosophy, Pachaiyappa's College, Madras.

A FEW EXTRACTS FROM OPINIONS:

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The Educational Review.

In the agenda for the forthcoming meeting of the Senate appear two resolutions of prime importance which have already evoked considerable comment in the local papers, thanks to the unfortunate lead given by the *Madras Mail*. This last paper came out with a long leading article upon the resolution of which notice had been given by Mr. G. A. Natesan. If the 'Mail' was under any hallucination that by writing the leading article it was doing a service either to the Syndicate or to the University Professor concerned, these latter have only to cry 'save us from our champion.' The *Madras Mail* leader displayed such utter ignorance of the whole question, nor does the University Syndicate display much greater knowledge, that it will not be waste of time to draw attention to the history of the question which is one of such vital importance in the history of University education in the country.

After half a century of University education people in high places woke up to a sense of the imperfections of higher education and the Government of India felt the need of revision. After the usual commission and evidence, the new Universities Act was promulgated in 1904. It took two more years to draft new regulations under the Act and these became bye-laws in December 1906. Even so the new regulations had been drafted in such great haste and with so little of forethought that further patch-work legislation to bring these into working order have not yet ceased. While this formative process was still in progress there came in the régime of a liberal policy in higher education inaugu-

rated by no less a personage than the august sovereign in whose hands are placed the destinies of the Empire 'on which the sun never sets.'

The policy thus inaugurated materialised in the form of regular imperial grants for purposes of education by the Government of India, among which are included liberal grants for University education, breaking away definitely from the fashionable cry that higher education should, as far as possible, be self-supporting. The grants to the Madras University took the shape of 4 lacs of rupees for permanent equipment, forty thousand rupees of a non-recurring grant and a recurring annual grant of rupees sixty-five thousands. There was certainly considerable divergence of opinion as to the best disposal of these sums, and informed opinion was sharply divided between 'scientific development' and the creation of a 'school of Indian studies.' Taking the condition of educational equipment and the facilities that existed in the country as a whole, and the actual amount of money available it was thought best to make use of this liberal dispensation of the Government of India to create a language school, seeing that the geographical area allotted to the University of Madras presented peculiarities of history and languages that were not likely in the near or remote future to receive the attention they deserved elsewhere. Very good alternative schemes were offered either to equip scientific and technological laboratories, or the opening of a school of Tropical Medicine. At the time the matter was under discussion, there were very good prospects of both these receiving their full share of attention in the Indian Institute of Science in Bangalore. But for

certain unfortunate and unforeseen occurrences these would have been realised to the extent of the wishes of the most patriotic among our countrymen, but that does not concern us here. What does concern us in this connection is that the way in which the available grants were distributed was not bad at all from the point of view of University education. Much rather it was distinctly good and came in rather later than earlier. There were various elements in it, but these were all meant to hang together. The grant for equipment together with a grant that the local Government was willing to make was set apart for a University building to house at once the University Library, the Government Oriental MSS. Library to be made over to the University, the offices and lecture-rooms for the various professors, &c. The non-recurring grant of Rs. 40,000 was set apart for a Professorship of Economics whose special function was to study the economic features peculiar to India, and chalk out a line of investigation for founding a school of Indian Economics. The annual recurring grant of Rs. 65,000 was set apart for the following purposes:—

1. To provide for the maintenance and working of the Government Oriental MSS. Library, with a Librarian and a staff of Pandits, &c.

2. To found a Professorship of Indian History and Archaeology.

3. To form a school of languages peculiar to South India by providing for chairs of Dravidian languages and one for Sanskrit Philology.

One will see clearly from this allotment that as far as one could foresee these were absolutely necessary to create a school of Indian studies without which, no Indian

can ever have the chance of becoming a liberally educated man with anything like a knowledge of his own country necessary for enlightened citizenship or a reasoned affection that one ought to have for his motherland.

The University Senate left this scheme in the hands of the Syndicate to be carried out. The success or failure of a scheme does not depend quite so much upon the character of the scheme itself, as upon the knowledge and sympathy with which it happens to be carried out in detail. The Syndicate of the University of Madras have, in recent years, shewn themselves to be utterly devoid of the one and often wanting in the other of these two essential elements of success. Nor is this surprising if its composition should be taken into account. We hold no brief for anybody and we shall let this matter pass.

The Professorships were advertised for and appointments made for the chairs of Sanskrit Philology, and Indian History and Archaeology—very recently the chair of Indian Economics has also been filled up and the Professor is enlightening an Indian audience, with his few week's experience, upon the various economic questions which have been taxing the highest intelligence in the country, native and domiciled, for many long years.

About the Dravidian languages, however, there was an initial difficulty to be got over. It was not so much the creation of a chair as that of a school. The original idea, as the proceedings of the various Senate meetings and the speeches of those that knew most about this subject will shew, was to provide a chair of Sanskrit Philology as a complement to the chair of Sanskrit in the Presidency

College, and one chair, if a chair for each of the Dravidian languages was not possible, for each of Tamil and Telugu. This was transformed, in Committee, into one chair for Sanskrit and one for Dravidian Philology. This latter, however, was explained as meaning not Philology strictly so called but 'anything relating to the Dravidian languages.' The Syndicate not finding a suitable applicant for this chair resolved to appoint a number of Readers in these languages. Naturally they appointed their Committees, in which usually those that knew most did not find a place, and a number of candidates, whose qualifications clearly indicated that the Syndicate and their Committee had already forgotten the purpose of these appointments, were appointed University Readers. This selection indicated the inevitable bias towards philology without a thought that the Dravidian languages require a great deal more of work to be done in various other branches before a study of their philology is attempted. What was worse for the case, there was no indication anywhere as to what these Readers were, and what they were expected to do. Worst of all, these were placed under the supervision of a Professor who had no knowledge of the very elements of any one of these Dravidian languages. With such tremendous disadvantages to begin with it would have been nothing short of a miracle if the scheme had succeeded. As the *Madras Mail* put it with a chivalry worthy of a Don Quixot, the Readers did not know what exactly to do, the Professor did not know what exactly to teach and the Syndicate did not know what exactly to expect either the one or the other to do. Bad plight indeed for a University Syndicate!

but this august body would not stoop to ask advice, for how can Indians know philology? To know philology is to know languages and to know languages is but to disqualify oneself from philology. The result is the Readers were treated as students, and students of a Professor who might know philology but none of the languages. They had to do what the Professor would have them do, and the Professor could not understand what the Readers would and could do.

The placid calm of University administration was rudely broken by Mr. G. A. Nathan's enquiry as to what these Readers and the Professor were doing during the two years of their office ending July next. The Syndicate's reply to this question is a resolution to disestablish this holy order and put in its stead a small hierarchy of a Lecturer and two Asst. Lecturers presumably one for Tamil and one for Telugu, and sending away the other two Readers to return to their respective occupations sadder but wiser men. The Professor of Sanskrit Philology becomes Professor of Comparative Philology. The Lecturer and his Assistants have to be under his supervision whatever that may mean. We have no particular bias against the Professor of Sanskrit Philology or Comparative Philology. We have no objection to his being made Professor of Dravidian Philology if he has the qualifications for the post, but we do protest against anybody pretending to do work for which ostensibly he has none of the necessary qualifications. All we wish to know, and the public have a right to know it, is, how the choice was made among the five Readers and by whom. What were the criteria of judgment?

Now that the Syndicate have had some

experience of these new departures in education we would wish that the whole matter be reconsidered and the Professors and other members of the University staff were put upon a footing which would enable each one to do his best work with knowledge of what is expected and without needless and irritating differentiations which would only hamper working. The Professor of Philology and the Readers have been in the employ of the University for eighteen months, the Professor of Indian History and Archaeology, for fifteen months and the Professor of Economics for two months. It is to be hoped that the next report of the Syndicate would embody in it the actual work done by these and give the public an idea of what is being actually done. We would recommend for the consideration of the Senate that a representative Committee be appointed to consider and adopt the rules intended for the Professors as also to consider the past work and future position of the Readers before adopting the recommendation of the syndicate in regard to these latter.

Before closing however, we would ask a question that has often suggested itself to us during the last few weeks. How was it that the Professor of Economics was introduced to Madras in full Darbar, as it were, and the other two Professors that were here long before him were allowed to find their way as best they could? We ask this question as we have often heard that there were University lectures delivered by them. The University Syndicate probably have had very good reasons and it is not in the traditions of the Madras University Syndicate to take the public into confidence on any matter where even the Government would do it.

We would bespeak the consideration of the Syndicate as to exactly what is likely to be the construction that an educated citizen of Madras would put upon this differentiation. Perhaps this is much too petty a matter for such an august body to bestow a thought upon.

The Presidential Address delivered by the Hon'ble Mr. Justice Abdur Rahim on Indian education in general and Muhammadan education in particular.

Madras at the Twentieth Session of the All-India Muhammadan Educational Conference held at Poona challenges our admiration by its breadth of view, statesman-like outlook and a refreshing outspokenness rather rare in public utterances by gentlemen in the exalted positions such as that occupied by him. The most striking feature of Mr. Rahim's view-point is that he is an Indian first and then a Muhammadan. Almost at the outset of his address, he told his audience, "conscious as I am of the full significance of the Muslim University question, it is my duty to tell you that there are other educational problems of vital concern to the country and the community deserving of your most careful and vigilant attention in the interests of the future growth of the people of India generally, including the Muhammadans." Later he expressed his gratification that the Muhammadan community realised, more perhaps than ever, that in India itself they would "be able, jointly with their Hindu brethren, to work out their common destiny and

ultimately reach the natural goal of a nation which has a history so renowned and is so gifted as the people of India." He therefore impressed on the Conference that "nothing would be a more fatal mistake than to confine ourselves solely or mainly to those aspects of educational questions that more especially concern the Muhammadans." The first general question that Mr. Rahim discussed was the duty of the Government of this country in the matter of the organization of public education. He pointed out that in India where such a large percentage of parents are illiterate and poor and unable to help themselves in this respect and where the Government "commands larger resources and a more effective organization than what can be supplied by private efforts, the burden of educating the people has primarily to be borne by Government." It has been the misfortune of India that public policy here has seesawed between the individualism of England and the State-control of continental States. But "the most thoughtful men among the people have found themselves driven to look principally to the Government to undertake the national organization of education" and the Government is slowly coming round to the popular side in this matter.

Mr. Rahim unhesitatingly supports the principle of compulsory education and regards it as feasible to "enforce it in selected areas." When the late Mr. Gokhale introduced his bill regarding free and compulsory education in the

Imperial Legislative Council, public opinion was not sufficiently well instructed and "did not express itself with sufficient clearness and definiteness." But now, Mr. Rahim points out that public opinion is advanced, that "an educational cess for establishing primary education on a free and compulsory basis will, in the municipalities of the larger cities "be welcomed by all classes of the people and receive their hearty co-operation;" but, again, the experiment can succeed only if the Government pays ample grants to the District Municipalities and Boards for the purpose of maintaining Primary Schools in sufficient numbers to meet the wants of every town and village. Thus we come back to the fundamental point already pointed out that the organization of education in a country like India ought not to be left to the individual efforts of the people but ought to be made one of the primary duties of the State. Speaking of secondary education, where "the real momentum of progress in a community is to be measured" and where alone "any real foundation is laid for progressive knowledge," Mr. Rahim reiterated the principle that the District Boards and Municipalities, and in the last resort the Government can alone provide the necessary number of Secondary schools and in the case of individual effort, the Grant-in-Aid Code should be worked on such a liberal scale that "every private effort to advance secondary education is adequately responded to by Government." And even

when Government does respond to the popular demand in such matters, nay even when His Majesty, the King-Emperor and His Excellency the Viceroy announced definite programmes of educational expansion, the difficulties of the people do not cease; for "in India, partly owing to individual idiosyncrasies for which there seems to be an unlimited scope and partly because of the ever-shifting official personnel, many a measure for the good of the people elaborated with considerable care, forethought and labour, and I need hardly add at an enormous expense to the public, are so often delayed in execution that they lose half their value, and are not often shelved. Among lawyers the saying is current that the troubles of a litigant begin when he has obtained a decree and seeks to execute it. Similarly, it would seem that the troubles of the Indian public commence when any large measure of reform after it has been formulated is brought to the stage when it has to be carried out."

Another general educational question affecting all Indians on which Mr. Rahim has quite candidly spoken out is the steady attempt on the part of so-called educational reformers to "reducing the sphere of higher education in the name of efficiency," "the deity which is professedly worshipped in this country. Now no one objects to efficiency as such, we all want our best graduates to be as highly educated, as well-informed, as mentally fit as the best products of European Universities, even

though such is the organization of our public service that the market value of the best graduate of our Indian Universities is very much less than that of the average product of English public schools, even of those of them who have not received University education. But we certainly regard with suspicion the efforts of educationists to reduce the number of those who are admitted to colleges in the name of efficiency. These zealots of reformers deny the benefits of higher education to the many under the pretence of improving the standard of education of the few, and that in a land where the bulk of the people are steeped in ignorance and where the spread of the light of knowledge is so urgently needed. We shall never cease to protest against the driving of "human institutions with the efficiency of machines" at the risk of "crushing the most valuable human institutions and aspirations." The Madras University is now engaged in adopting measures to reduce the strength of its colleges under the excuse of the plea that principals have opened their doors too wide to be able to fitly educate the cleverer pupils, as if refusing higher education to the many were the *sine qua non* of securing it to the few! Some Calcutta educationists are on a similar quest. We cannot but regard the zeal of these "educational reformers" as but hollow mockery and will never cease protesting against their mischievous activities.

Turning to the special educational problems which pertain to Muham-

madan Indians, Mr. Rahim bemoaned the well-known fact that beyond the primary stage, that community has been much behind hand other communities in seeking the modern education offered by our schools and colleges. He rightly advocated the need for special measures "to advance education among such portions of the nation as may have lagged behind—such as training schools for Muhammadan teachers, providing special scholarships for Muhammadans, a special Muhammadan Inspecting staff, etc." We think these measures are not enough to advance the cause of education among the Muhammadans. Economical and pseudo-religious difficulties are partly responsible for the lack of education in that community. But we think that the root of the trouble consists in the cast-iron nature of our syllabuses. Our schools are so organized that there is a premium offered for people who have a facile memory for words and communities whose instincts and habits do not fit them for this facility necessarily lag behind. More elastic syllabuses, greater variety in subjects taught, especially in the matter of providing knowledge of realities, and not merely making education depend on memory for words and phrases, and above all generous rules in the matter of awarding degrees—these are urgently needed before education can spread equally well among communities of differing traditions and aims, but this aspect of the question has been ignored by Mr. Rahim.

Another question discussed by Mr.

Rahim, and that, the most burning question of the day for the Muhammadans of India, was that of the Muslim University. It is regrettable that in the case of a few Muhammadans, this question has stirred bad blood and has even led some of them to the position of the man who would cut his own finger to spite his neighbour. On this point Mr. Rahim has successfully endeavoured to pour oil on troubled waters and to induce the community to take a sane view of the difficulties in which the Muhammadan University question is entangled, we hope the Aligarh University will be enabled to start work at the same time as the Benares University and the promoters of both movements will remember the noble words of Mr. Rahim's eloquent peroration, "here is a noble cause, indeed, worthy of a magnanimous ambition, the uplifting of your community from the depths of ignorance and poverty to which it has been reduced to knowledge, power and prosperity. May God give us all strength to do our duty!"

On February 4th, to the accompaniment of Vedic Mantras chanted by Brahmins, the foundation stone of the Hindu University was laid by H. E. Lord Hardinge the foundation-stone of the Benares Hindu University containing within it, as His Excellency prayed it might do, "the germs of all that is good and beautiful for the enrichment of the educational system of India, the enlightenment and happiness of her

people and the glory of God." The Maharajah of Darbhanga, one of the moving spirits of the movement, in his address of welcome, explained that the object of the Hindu University movement was to start "a central educational institution of our own to preserve and promote our distinctive civilisation and culture and to instruct our youth in the sacred precepts of our religion." We feel bound to remark that this is a rather dubious description of the aims and aspirations of the new University. Indeed His Excellency gave a more correct account of the University than its enthusiastic champion, the Maharajah of Darbhanga. The first function of the new University is, in the words of the Viceroy, to provide "great facilities for University education [we may add to make the meaning clear, of a modern kind] in this country, so that the classes of the colleges of the existing Universities may not be of "unwieldy dimensions." Hence His Excellency claimed that the Benares University was but the forerunner, in the matter of "the diffusion of higher [again we feel bound to add for the sake of clearness, modern] education through the creation of new Universities," of the Universities to be established at Dacca and Bankipore, in Burma and the Central Provinces, and that it would not only relieve the pressure on existing institutions but would give to its pupils education of such a high standard as to "make it unnecessary for Indian students to go to foreign countries for their studies." Another principle embodied in the new

University, as explained by His Excellency, is that it is "to be a teaching and residential as contrasted with an affiliating and examining University. We rather doubt the value of this antithesis. We deny that there is, in India at least, any purely "affiliating and examining University." Lord Hardinge's own educational policy, the grants that he has so liberally given during his Viceroyalty have enabled the creation of hostels, of University Professorships, Lectureships and Readerships in the Government Universities and have helped to efface the antithesis that he refers to. Nor are we inclined to credit with more than a rhetorical value Lord Hardinge's comparison of the work to be organized in the Benares Hindu University with that which was done "in the far distant past" by "a group of pupils surrounding their Guru in loving reverence and not only imbibing words of wisdom" that fell from his lips. The existence of chairs of such modern subjects as Technology, to be founded in the name of the Viceroy by the Maharajah of Jodhpur show that the Benares University will be of a very modern type. His Excellency then referred to the denominational character of the University. This has, in the past, been the cause of much opposition, but we may waive the question at present, for all parties have agreed to postpone the consideration of the exact nature of the religious education to be imparted in the University and most people hope that when it comes to be organized the

religious education of the University will be sufficiently thin as not to deepen the lines of cleavage that prevent the various communities of India from joining into one nation conscious of unity of aims and aspirations. Lord Hardinge, himself, believes that "mental and moral discipline" and "precept and example of professors" are but "shifting sands upon which to build character without the foundation of religious teaching and the steadying influence of a religious atmosphere," thus contradicting his own estimate of the value of the residential Universities referred to by him earlier in his speech. But so long as the Hindu University authorities have not agreed, nay, shown that it is possible to agree, on the kind and amount of religious education to be imparted, our souls need not be disturbed. Lord Hardinge himself defines it to be the preservation and fostering of "what is best in Hindu ideas of life and thought, of all that is noblest of Hindu ideal and tradition, culture and civilization" and the grafting "upon that tree, healthy and strong in its own natural soil,..... growing in it and of it all that is good and great of Western science, industry and art, so that [Hindu] young men may go forth, not only inspired with pure and noble ideals, but also equipped for the development of their mother country along the more material lines of progress and prosperity." We end our note on this unique occasion in the history of India with echoing the hope of its most sympathetic Viceroy that the

"Hindu University may be a place of many-sided activities, prepared to equip the young for all the various walks in life that go to the constitution of a modern society, able to lead their countrymen in the path of progress, skilled to achieve new conquests in the realms of science, art, industry and social well-being, and armed with the knowledge as well as the character so essential for the development of the abundant natural resources of India."

We cannot congratulate the Director of Public Instruction, Madras, on the constitution of the proposed Committee to consider the revision of the Grant-in-Aid Code and Educational Rules. It passes our comprehension how a crowd of forty people can usefully debate and come to satisfactory conclusions on questions like how far capitation allowances to trained teachers tend to encourage the employment of trained teachers or in what respects the existing system of Grant-in-Aid to secondary schools needs revision. Nor can we guess on what principles the members constituting the Conference have been selected. Fifteen out of forty are members of the Government Educational Department. We cannot see that any useful purpose is served by the inclusion of almost all the important members of the Government Inspecting staff, in a committee dealing with questions of policy and not with forms of annual returns or Inspection reports. Then there are eleven ladies and gentlemen to represent the missionary educationists. It would seem that the various sects of Christianity hold different opinions about capitation allowances! In significant contrast to this there is but one gentleman to repre-

sent the Muhammadan community. The Telugu and Uriya people, who are backward in the matter of the spread of education and who live, generally, in Zemindari districts, and hence suffer from special disabilities, are represented by not one member in this committee of forty ladies and gentlemen. Hindu schools are represented by one solitary gentleman; Second-grade colleges, which for purposes of the Grant-in-Aid Code, are regarded as Secondary schools, are represented by the Principal of an endowed college in a remote corner of the Presidency. The numerous body of school managers, some of whom, at least, are painstaking, self-sacrificing workers for the spread of education are again not at all. The Provincial Legislative Council is represented by about six, though no one knows what these estimable Honourable gentlemen know about the finances of private schools in South India, the rules under which school grants are enhanced or decreased or cancelled, the struggles of school managers and school masters. We do not mean anything disparagingly of these gentlemen. They are good in their own ways. What we want to press is that it is only fair and proper that the majority of the Committee should consist of Headmasters of some of the leading private institutions, who are actually suffering from the disabilities of the present educational policy. The wearer alone knows where the shoe pinches. We hope the proceedings of this Conference will be reported in the press, when it meets on the 16th March next.

We deeply regret to note the unfortunate incident that took place in the Presidency College, Calcutta, which has led to the closing of the institution under the orders of the

Government, pending the result of the enquiry by the Committee appointed by the Government for the purpose. We fail to see the wisdom of the Government Order in punishing the whole College by closing before the cause of the disturbance is made known by the Committee. We reserve our comments on the subject till the report of the Committee is published.

On the 2nd December 1915, passed away the Rev. James Cooling, one of the most respected and beloved of the Christian Missionary educationists of Southern India. We have little concern with his activities as a Christian propagandist except to note that during 38 years he did unceasing hard work in the promotion of the cause which had attracted him to South India, that of organizing Wesleyan Methodism. His chief educational work was the Principalship of the Royapettah College and many a young man, Christian and Hindu, regards him with feelings of love and respect, as a conscientious, hard-working teacher. He was for a long time member of the Madras University Senate and in recent times often called upon to take temporarily the chair of the Vice-Chancellor, when the latter functionary resigned his presidential chair for the purpose of taking part in debates. Mr. Cooling was a member of the Christian College Council since 1877 and on more than one occasion did yeoman service in that body during times of storm and stress. He guarded the interests of mission schools, as member of the Missionary Council of Education and in that capacity took prominent part in numerous departmental conferences. In him South India has lost an enthusiastic educationist of much Indian experience, sage in counsel and ready at all times to take the burden of the hardest work that presented itself.

THE HINDU UNIVERSITY, BENARES.

FOUNDATION-STONE LAYING CEREMONY—4th Feby. '16.

Address to the Viceroy.

The Maharajah of Darbhanga as President of the University Committee read the address of welcome. He said:—

MAY IT PLEASE YOUR EXCELLENCY—

It is my proud privilege to-day to respectfully offer to Your Excellency on behalf of the Hindu University Society a most cordial welcome to this ancient seat of learning, and to express our fervent gratitude for your gracious acceptance of our invitation to lay the foundation-stone of the Hindu University, which will ever remain associated in the minds of the Indian people with a Viceroy, whose generous support and sympathetic encouragement have contributed so much to the realization of the earnest hopes and aspirations of the Hindus of India, which will now take concrete shape in this institution. The history of the movement for the establishment of the University is briefly told. It carries us back to the year 1904 when at a meeting held under the presidency of His Highness the Maharaja of Benares the proposal to found a Hindu University was first put forward. The idea took some years to mature and led in 1911 to the formation of the Hindu University Society, which was registered in that name. The society was successful in obtaining the very next year through the support of Your Excellency's Government the approval of His Majesty's Secretary of State for India of the proposal to establish a teaching and residential University on the lines proposed. A short period of a little over two years, spent in the discussion of details, saw the Benares Hindu University Bill passed into law and placed on the Statute Book

of the land on the 1st of October, 1915. It is a source of deep gratification that the idea has effectively touched the hearts of the people of the land. The great and noble Princes, the landed gentry and the general public have all come forward as one body to generously support the movement. Their contributions to the University funds now amount to close upon one crore of rupees including the capitalised value of the annual grants sanctioned by the Ruling Princes to which Your Excellency's Government has been pleased to add an annual grant of a lakh of rupees. The selection of a suitable site affording full facilities for the ever progressive development of a great University growing and expanding with the growth of ideas and ideals as well as of the multifarious demands and needs of modern life and its many-sided activities, was the first measure which engaged the attention of the Society, and the site on which we are assembled to-day extending over 1200 acres was selected after much consideration. The incorporation of the Central Hindu College in the new University had been contemplated from the beginning and thanks to the ready co-operation of Mrs. Annie Besant and the other Trustees of the College, whose labour of love and devotion had built up that institution; the college has been transferred to the Society to serve as the nucleus of the University. The movement reaches its culminating point to-day when we are met to witness the foundation of the University being laid by Your Excellency.

The reasons which demanded the establishment of such a University may also be briefly

stated. It is impossible to recall the state of education which existed in India at the beginning of the British rule and compare it with the stage it has now reached without a sense of deep gratitude to the Government which has brought about this momentous change. Great also is our indebtedness for our existing Universities which have contributed in so large a measure to the diffusion of higher education among our people. But these Universities are at present mainly examining bodies and there is an ever-growing consensus of opinion that those Universities alone can best discharge their high functions and fulfil their mission which teach as well as examine, which impart not only literary but also scientific and technical education combined with research and which ought to mould the character of their *alumni* by helping them to leave their academic life in healthy environments under the personal influence and living care of good and capable teachers. There was another equally powerful reason for the inauguration of this movement. While we highly appreciate the value and need of education in European arts and sciences, we cannot divest ourselves of the consciousness that we have inherited a culture and civilisation of our own, which reaches further back in time than that of any other people and which possesses and we believe in a special degree, the elements of social stability as well as the fundamental principles of physical, intellectual and spiritual progress and welfare. Amidst all the vicissitudes through which the Hindu Society has passed it has in all essentials clung to that civilisation and has ever been governed by it. There was naturally a widespread desire in our community that we should have a central educational institution of our own to preserve and promote our distinctive civilisation and culture and to instruct our youth in the sacred precepts of our religion. The promoters of the University have that if our students are brought up in the traditions and culture, and instructed in the precepts of our religion, they will grow up into

men of vigorous intellects and high character who love their motherland, are loyal to the King and are in every way fit to be useful members of the community and worthy citizens of a great Empire. Great therefore is our gratitude and great our joy that under the dispensation of a Benign Providence with the generous support of the suzerain power of the rulers of Indian States and of the public we witness here to-day the foundation of a great institution which seems to combine the usefulness and efficiency of the modern system of education with the high spiritual ideals of ancient India. This auspicious day will ever remain memorable in the history of our country. Never before perhaps in that history did the highest representative of the sovereign and the rulers of so many States and provinces meet to co-operate with the people to bring into existence an educational institution like the proposed University. The gratitude that we feel towards Your Excellency is too deep for words, for, our success is in the largest measure due to the generous sympathy and support which the movement has received at Your Excellency's hands. Nor should we omit to express our obligations to the Hon'ble Sir Harcourt Butler for his valued advice and friendly help at every important step of our progress. We are also deeply thankful to the rulers of provinces and Indian States who have honoured and encouraged us by their presence. Equally grateful are we to the distinguished scholars and educationists who have by so kindly responding to our invitation given us an assurance of their guidance and co-operation in the great task that lies before us of building up an ideal University and making it in every way worthy of the continued patronage and support of all well-wishers of this land.

We take this opportunity of expressing our gratitude to all subscribers to the funds of the University particularly to Ruling Princes and other principal donors who have helped us with liberal contribution. Time will not permit of our mentioning the names even of all donors of large

sums, but we may be allowed especially to express our obligations to His Highness the Maharaja of Udaipur, His Highness the Maharaja Gaekwar of Baroda, His Highness the Maharaja of Jammu and Kashmir, His Highness the Maharaja of Jodhpur, His Highness the Maharaja of Jaipur, His Highness the Maharaja Scindhia of Gwalior, His Highness the Maharaja Holkar of Indore, His Highness the Maharaja of Kotah, His Highness the Maharaja of Krishengarh, His Highness the Maharaja of Alwar, His Highness the Maharaja of Nabha, His Highness the Maharaja of Benares, His Highness the Maharaja of Kapurthala, His Highness the Raja Rana of Jhalawar, His Highness the Maharaja of Patiala among the ruling princes, and to the Hon'ble Maharaja of Darbhanga, the Hon'ble Maharaja of Cossimbazar, Sir Rash Behari Ghosh, Thakur Suraj Baksh Singh of Sibpur, Babu Brajendra Krishore Roy Chowdhuri, the Hon'ble Babu Moti Chand and the Hon'ble Dr. Sander Lal, who have each contributed one lakh or more to the funds of the University. We also desire to thank the Government of India for the handsome grant of one lakh a year.

We fully realize that we require a much larger sum than we have yet been able to secure but we have every hope that the generous public will help us with all the funds we need to build up this new and great temple of learning.

Your Excellency's administration which, we are grieved to think, is drawing to a close, will ever be memorable for the spirit of true and active sympathy with our national sentiments and aspiration and for an earnest endeavour to appreciate and satisfy popular needs. Many are the wise and beneficent measures which have distinguished Your Excellency's Viceroyalty. Among these the support you have given to the cause of education in general and of higher education in particular, the inauguration of residential and teaching Universities and the liberalisation of educational policy by sanctioning the

establishment of a private University will stand out conspicuous and be gratefully cherished in the memory of the people. These measures have won for Your Excellency the deep admiration and grateful affection of all classes and sections of the community and have secured for you a highly honoured place in the history of our land. As a memento of the deep and kindly interest which Your Excellency has taken in the Hindu University the Jodhpur Durbar have endowed a Chair of Technology, which is an endowment of Rs. 24,000 a year which they and we desire to associate with your honoured name, and we crave Your Excellency's permission to our doing so. The endowment will, we hope, serve as a nucleus for the development of the Faculty of Technology of the University in the near future.

We are also deeply indebted to His Honour Sir James Meston for the keen personal interest he has taken in our works and we take this opportunity of expressing our gratitude both to him and to the officers of his Government for the invaluable assistance and co-operation we have received from them in making the requisite arrangements for this function.

We cannot conclude without giving special expression to our gratitude to His Highness the Maharaja Sir Prabhu Narain Singh of Benares for the paternal interest he has taken in and the fostering support he has always extended from the very beginning of its life to the Central Hindu College and to the scheme of the University itself, and last but not least, for the liberality of his co-operation in arranging for the reception of our distinguished and honoured guests on this occasion.

I now humbly request Your Excellency to be pleased to perform the great ceremony which has brought us here to-day and we fervently pray to the God of all nations that he may bless the great work which Your Excellency is about to inaugurate, so that it may fulfil in ever greater and greater measures its pure and noble purpose of

welding together the noblest culture of the East and of the West, and that He may vouchsafe health and happiness to Your Excellency, peace and prosperity to this ancient land, and to the great Empire of which it forms a part and long life, glory and power to the noble and gracious King-Emperor who rules over this Empire.

The Address was enclosed in a silver casket which was a facsimile of the holy temple of Shiva.

H. E. the Viceroy's Reply.

The following is the full text of H. E. the Viceroy's reply at the foundation-stone laying ceremony of the Hindu University—

YOUR EXCELLENCY, YOUR HIGHNESSES, LADIES AND GENTLEMEN :

It has seldom fallen to my lot to address a more distinguished gathering than that which I see before me to-day including as it does the Governor of Bengal, a constellation of Lieutenant-Governors, a veritable galaxy of Ruling Princes and so much of the flower of India's intellect. What is it that has brought together this brilliant assemblage from so many distant parts of Hindustan? What is the lodestone that is exerting so powerful an influence? It is there in front of us, a fine block of marble, but little different in outward appearance from many others that I have helped to set in their places during the past five years. But in spite of its apparent simplicity it possesses a deep significance, for it betokens a new departure in the history of education in India and one that has attracted the most intense interest on the part of all good and thoughtful Hindus. The foundation-stone will mark a definite step in the advance towards an ideal that has stirred to its very depths the imagination of India.

NEED FOR MORE UNIVERSITIES.

The demand for enlightenment and educational progress grows ever stronger and the ceremony we are gathered here to perform offers no small

a response to that demand and may perhaps pave the way for its more rapid fulfilment. To such an alliance as I have before me here, it is unnecessary to enlarge upon the need for providing greater facilities for University education in this country. We all know or have heard of the pressure that exists in our existing University centres of the enlargement of classes to unwieldy dimensions to admit of the inclusion of the ever-increasing numbers of students, of the melancholy wandering of applicants for entrance from Colleges when all Colleges are already full to overflowing. There is a division of opinion between the advocates of quantity and the advocates of quality, and there is much to be said for both. The charge is frequently brought against the Government that they are too eager for quality, and too ready to ignore the demand for quantity, and comparisons are made, that do not lack force between the number of Universities in England, America and other countries and the number available to the 300 millions of India. Nevertheless it is the declared policy of the Government of India to do all within their power and within their means to multiply the number of Universities throughout India realising as we do, that the greatest boon the Government can give to India is the diffusion of higher education through the creation of new Universities. Many, many more are needed, but the new Universities to be established at Dacca, Benares and Bankipore, soon to be followed, I hope, by Universities in Burma and Central Provinces, may be regarded as steps taken in the right direction.

A GREAT AND NOBLE AIM.

Here at any rate in this city is a cause, where we can all stand together upon a common platform, for no one can dispute that the Benares Hindu University will add to the facilities for higher education and to some extent lighten the pressure of the existing institutions, while it is the proud boast of all, at least one of those who have so successfully engineered this movement, that

the degree of the Benares Hindu University shall be, not only not lower but higher, in standards than those of the existing Universities. It has even been claimed that this University will only justify its existence when the education given within its precincts shall make it unnecessary for Indian students to go to foreign countries for their studies and when such expeditions will be limited to advanced scholars and professors, who will travel abroad to exchange ideas with the doctors and learned men of other continents in order to make the latest researches in all branches of knowledge available to them. That is a great and noble aim which I hope may be fulfilled in this University and I think all will admit that the Government have not been backward to give their co-operation and assistance to a scheme so full of promises.

NEW FEATURES.

But this University is going to do something more than merely increase the existing facilities for higher education. Its constitution embodies principles that are new to India in that this is to be a teaching and residential as contrasted with an affiliating and examining University. I am not ignorant that the principles have already secured general acceptance from most thoughtful men, but they were not fully recognised when our older Universities were established, and they can only be partially applied to their constitutions. Perhaps I was wrong to say that these principles are new to India. Though in ancient times there was nothing quite like a modern University its prototype may be dimly discerned in the far distant past, and the tradition that has come down to us is one of thousands of students gathered round the great teachers as Vashishta and Gantama, and indeed the whole Indian idea of education is wrapped up in the conception of a group of pupils surrounding their Guru in loving reverence and not only imbibing the words of wisdom that fall from his lips but also looking up to him for guidance in religion and morality

and moulding their characters in accordance with his precept and example. To this and similar schemes my Government have consistently given their support and my advisers came to the conclusion at an early stage in the history of the movement that it would be wrong and impolitic on the part of Government to resist the desire shown by the Hindu and Mahomedan communities of India to inaugurate special Universities of this new type.

THE DENOMINATIONAL CHARACTER.

But whether the idea of a residential and teaching University be new or old, there is no doubt that it is a departure from the existing model and is not the only departure that characterises this enterprise and indeed I do not myself think that, important as the distinction may be, it is going to have so great an influence upon generations yet unborn as that other departure that, the constitution of this institution embodies, and that is indeed of the very essence of its creation—I mean its denominational character. There are some who shudder at the very word denominational and some who dislike new departures, of any kind. Controversy has raged around such points in England and educational problems have a way of stirring up more feeling than almost any other social question. I do not think this is unnatural for the importance cannot be exaggerated. If you realise that the object of an educational system must be to draw out from every man and woman the very best that is in them so that their talent may be developed to their fullest capacity, not only for their individual fulfilment of themselves but also for the benefit of the society of which they find themselves members, if you realise this, is it not well that men should strive with might and main to attain and be content with only the very best and, is it not natural that the strife should produce a mighty clash of opinion and conviction? But the questions at issue cannot be settled by theory and discussion. Education is not an exact science and never will be. We

must also have experiment and I for one consider that Lord Ripon was a sagacious man when he deprecated that the educational system of this country should be cast in one common mould and advocated, as he was never tired of doing, that variety which alone he urged can secure the free development of every side and every aspect of national character. I should like to remind you too that this new departure of a denominational University is not quite such a novel idea as some of you may think, for the Education Commission appointed by Lord Ripon while recognising that the declared neutrality of the state forbids its connecting the institutions directly maintained by it with any one form of faith suggested the establishment of institutions of widely different types in which might be inculcated such forms of faith as various sections of the community may accept as desirable for the formation of character and awakening of thought. They recognised the danger that a denominational College runs some risk of confining its benefits to a particular section of the community and thus of deepening the lines of difference already existing. But I am not terrified by the bogey of religious intolerance, rather I think that a deep belief in and reverence for one's own religion ought to foster a spirit of respect for the religious convictions of others, and signs are not wanting that the day is dawning when tolerance and mutual good-will shall take the place of fanaticism and hatred. That Commission touched with unerring finger the weakest spot in our existing system, for though something may be done by mental and moral discipline and something by the precept and example of professors, these are but shifting sands upon which to build character without the foundation of religious teaching and the steady influence of a religious atmosphere. My own personal conviction strengthened by what I have seen in other lands is that education without religion is of but little worth. That then is the great idea that has brought you all together to witness the ceremonial inception of this experi-

ment here. You hope in the not far distant future to see preserved and fostered all that is best in Hindu ideas of life and thought, all that is noblest of Hindu religion and tradition, culture and civilization, and grafted upon that tree, healthy and strong in its own natural soil, you hope to see growing in it, and of it, all that is good and great of Western science, industry and art, so that your young men may go forth not only inspired with pure and noble ideals but also equipped for the development of their mother country along the more material lines of progress and prosperity.

THE PRESENT CONSTITUTION.

As regards the actual constitution, this has been a matter of prolonged negotiation with the promoters of the University movement and with the Secretary of State. Into the history of the negotiations it is not necessary for me to enter. I need merely observe that my Government has throughout been animated by one main purpose to leave the greatest possible freedom to the University consistently with development on such safe and sound lines as would be approved generally by the Hindu community. I feel confident that the promoters of this scheme will zealously see to the right conduct of this institution. I am glad to think that I shall leave the University in the capable and sympathetic hands of Sir James Meston who is your first Visitor. The position of a visitor is one of dignity and influence, and you know that you will always be able to rely on Sir James Meston for wise help and sound advice.

APPRECIATION AND APPEAL.

We have not arrived at the present stage without a considerable amount of effort and hard work and should like to take this opportunity of expressing my high appreciation of the zealous but reasonable spirit in which the Maharaja of Darbhanga, Pandit Madan Mohan Malaviya, Dr. Sunderlal and others, on behalf of the promoters of the University, conducted the negotiations with Sir Harcourt Butler, as representing the

Government of India, to whose great tact and conciliatory attitude, the promoters of the scheme would pay as high an eulogy as I wish to pay myself, and thus enabled the measure which gives birth to this institution to be passed through my Council in time of war as a non-controversial measure. I also tender my most hearty congratulation to the Maharaja of Darbhanga, Pandit Madan Mohan Malaviya and other members of the deputation that spent so much time and labour in enlisting the sympathy and generosity of their countrymen for this scheme. I watched with the greatest interest their wanderings from city to city and noted the welcome they everywhere received and the enthusiasm of their audiences. Heaven helps those that help themselves, and the result is that they have succeeded in collecting a sum that guarantees a commencement upon a sound financial footing and justifies us in taking to-day this first step towards putting the scheme into material shape. We have heard of the names of many of those who have contributed with princely liberality to make this possible, and the Benares Hindu University should never forget how much she owes to the Ruling Chiefs of India. But much more will be required in the future to secure the early completion of all the requisite buildings and I trust that the generosity of the great Hindu community may be like an everflowing stream. What will be wanted even more than money is really competent professors and teachers. So let me make this appeal to the whole of Hindu India to send her best men from every quarter here so that they may help to create a true University atmosphere and thus make this great experiment a great success. The act which we passed last October has still to be put into force and I am glad to announce that necessary steps are being taken to do so at an early date.

CONCLUSION.

I trust that when the University has been thus brought into legal existence, every care will be taken to proceed with due deliberation and

circumspection so as to ensure them that the quality of the instruction given and the surroundings may be worthy of the great position, which this University aspires to attain. To my friend His Highness the Maharaja of Benares special gratitude is due, for not only does the Central Hindu College which is to form part of the new University, owe much of its life and inception to him, but he is also making concessions in connection with the acquisition of the land for this great new experiment, and where could a Hindu University be more happily placed than here in Benares, the ancient seat of learning, clustered about with a thousand sacred associations. Here, if anywhere, should be found that religious atmosphere which seems to be so essential to the formation of character, and here if anywhere the genius of modern progress will be purified by the spirit of ancient culture. But it is my earnest hope that those who have done so much to bring this scheme to fruition will not now rest upon their oars. For the moment, provision will be made by the transfer of the existing Arts, Science and Oriental departments of the Central Hindu College to the University so that facilities for teaching these subjects may be supplied. I understand also that His Highness the Maharaja of Jodhpur in addition to a lump sum grant, has promised an annual grant of Rs. 24,000, which may render possible the inauguration of the study of some special technical subject and I accede with pleasure and pride to the request that has just been made that my name should be associated with the Chair of Technology, which it is proposed to found with that endowment. But I trust you will not let your ambition be satisfied with this, but will steadily keep before you the aim of creating colleges or departments of science, of agriculture and commerce and medicine so that the Benares Hindu University may be a place of many sided activities, prepared to equip young men in all the various walks in life that go to the constitution of modern society, able to lead their countrymen in the path of progress, skilled to achieve new

conquests in the realms of science, art, industry and social well-being and armed with the knowledge as well as the character so essential for the development of the abundant natural resources of India. Let it be our prayer that this stone may contain within it the germs of all that is good and beautiful for the enrichment of the educational system of India, the enlightenment and happiness of her people and the glory of God.

THANKS TO THE VICEROY.

At the close of the proceedings, the Maharaja of Bikanir read an address. The Maharaja said:—Your Excellency, I feel it a great honour that I should have been asked to tender on behalf of my brother Princes and of the Hindu community our most grateful thanks to Your Excellency for laying the foundation-stone of the Hindu University of Benares. By this crowning act of sympathy with the hopes and aspirations of our community, which constitutes the great bulk of the population of this ancient land of Bharatvarsha, Your Excellency has laid us all under a deep and lasting debt of gratitude. The idea of an institution like the Hindu University, which though designated by a special name will yet be entirely non-sectarian and undenominational in throwing its doors open to students of all creeds and both sexes, has, as we hoped, been successful in gaining the support of Your Excellency's Government, but we were particularly fortunate in having been favoured from the very outset with Your Excellency's own personal interest and sympathy, and I can assure Your Excellency that your taking the trouble to come here with the special object of performing this ceremony is greatly appreciated throughout the length and breadth of the country. The movement has received the sympathetic support of Rulers of Indian States as well, as is evidenced by the munificence of their donations and their strong representation at to-day's function, because we share with the rest of the Hindus of India a pride in the achievements of our ancestors in the fields of religion, philosophy and science and the desire to preserve our

distinctive culture and because of the manifold advantages of a residential and teaching University of the modern type which will afford special facilities for instruction to our subjects and in the constitution and governance of which representatives of Indian States will, under the Statute have a recognised position and a substantial voice. Your Excellency, as the Hindu University under God's providence grows in usefulness and importance, generations of Indians yet unborn will, in an ever increasing number, recall with deep gratitude the honoured name of the Viceroy, who helped to foster the movement and whose impending departure all India so deeply regrets.

After the formal proceedings were over the Viceroy was most enthusiastically cheered, cheers being also given for Sir James Meston.

FURTHER FUNCTIONS.

After the departure of H. E. the Viceroy from Benares the same evening, some of the high officials also left the place, among whom were Sir Michael O'Dwyer and Sir Edward Gait. Sir Sankaran Nair will stay behind to preside over Professor Gadde's lecture on "The Ideal of Modern University" which will be the last of the series of public lectures arranged by the Committee. Though the actual ceremony of the laying of the foundation-stone is concluded, yet Benares will remain *en fete*, so to say, for another week. Concerts and bioscopes which have specially come for this occasion begin their shows to-night and special prayers and pujas which have been going on the site of the University will be continued from day-to-day for some time. To-day's ceremony closed with the lunch and reception at Ramnagar to which the Maharaja invited about three hundred people to meet His Excellency the Viceroy. Among those that attended were all the Ruling Chiefs, the principal Darbaris, leading officials and a number of Indians of position. Some of the prominent members of the Hindu University Committee were introduced to His Excellency at Ramnagar and all present passed a most enjoyable evening. —*The Hindu*.

FEMALE EDUCATION.

In moving the following resolution on Female Education, at the Educational Conference recently held at Lucknow, Mr. Syed Zahur Ahmed of Lucknow spoke as follows:—

(a) This Conference deplores, in the words of his Honour the Lieutenant-Governor, that there has been in some places stagnation and in others actual retrogression and that to a considerable extent the problem of female education has been completely neglected, and gratefully welcomes his Honour's assurance that the Government would be ready to change the policy hitherto followed and take the lead in providing facilities for the education of girls in response to a demand from the public, and urges it to take early steps to advance girls' education by starting girls' schools, liberally aiding girls' school, that may be started by private agencies, establishing a Female Training College in every educational circle, developing the system of peripatetic governesses, granting liberal scholarships to women in order to induce them to take up teaching as a profession, and generally by following in their main features the recommendations of the Female Education Committee which submitted its report in the early part of 1905.

(b) While appreciating individual efforts, this Conference trusts that there will be better organized and more continuous activity on the part of the public in promoting female education and earnestly exhorts it to do its duty more fully along with the Government, by freely devoting its energies and resources to the accomplishment of so noble a purpose.

(c) This Conference recommends that the adoption of the department curriculum be not made a condition necessary to the grant of aid to private girls' schools by Municipal and District Boards.

We have gone through a series of recommendations on primary and secondary education of a general character and those are mainly confined

to the education of boys. I shall now call your attention to the important subject of the education of girls. A very nice paper has been written by Mr. Sri Prakash, which was circulated among you to-day and I do not wish to take up your time by explaining the benefit of female education. I take it that the advantages have been admitted on all hands, but I desire to call your attention to the state of female education in these provinces, to the most deplorable state of these provinces as compared with other parts of India. And I think I cannot do better than to confine myself to official utterances and official reports in dealing with this matter. These, I find, have been well collected in a paper also circulated this morning by Mr. Sanjiva Rao. It will be enough if I call your attention to certain parts of this pamphlet which brings out very clearly the particular points with regard to female education to which I wish to invite your attention. If we go back for a moment to not more than 20 years and see the progress which we have made in female education since then the result will be most astounding to those who have not studied the subject. Official returns tell us that in 1871 the number of girls' schools in these provinces was 640 and the number of pupils attending those institutions were 13,853. If we study the last four quinquennial reports with regard to female education we shall find that in the period 1892-97 the Director of Public Instruction of these provinces himself observed that these provinces 'have made far less progress in female education than any other part of India. Among girls of school age in these provinces not more than one out of 217 is at school; the average for the whole of India being one in 50. This unsatisfactory state of affairs can only be due either (1) to excessive indifference on the part of the people, (2) to less facilities than one provided elsewhere or to a combination of these causes.' He also remarked in the same report with reference to the facilities that Government provided: 'With

regard to the facilities for female education provided by the Government or other agencies the matter is one that can be judged roughly by the expenditure incurred. Calculations show....that the expenditure from all sources on secondary and primary schools for girls per mile of the population in the larger provinces was as follows:—Bombay, Rs. 19-3-0; Madras, Rs. 15-7-0; Bengal, Rs. 10-9-0; Punjab, Rs. 8-9-0; and the North-Western Provinces and Oudh, Rs. 7-2-0. 'These figures are enough,' the Director himself notes, to bring to light one point in which we do not act up to the example of the rest of India, and they give some support to the view expressed by Mr. Welby, Inspector, 1st Circle, when he writes "the fact of the matter is the question of female education has never been taken up in earnest. It requires a handsome allotment to do so." This was recognised by the Department of Public Instruction so long ago as 1897. Then if we mark the progress which was made during the next quinquennium, 1897—1902,—I will give you a few extracts to show the progress made—we find that 'except for the Frontier Province the United Provinces stand at the bottom of the list with one girl out of every 203 attending a primary or secondary school.' 'Facilities for female education have been extended by the opening of girls' schools, by the District Boards, by giving aid to those who were willing to carry on such schools and by encouraging the attendance of girls at the ordinary elementary schools in villages. But in comparison with other provinces, if we judge by last year's reports the United Provinces fall short in liberality towards this branch of education. The expenditure on secondary and primary schools for girls was as follows:—Bombay, Rs. 30-2-0; Bengal, Rs. 8-12-0, Madras, Rs. 18-11-0; Punjab, Rs. 10-9-0; and the United Provinces, Rs. 7-9-0.' During this year (1901-02), the official report also gave the percentage of girls at school to the number of girls of school-going age in each province, and

what do we find by a comparison of the figure? We find that our province among all provinces of India occupied the lowest position. The percentage of girls at school to the number of girls of school-going age is only .6. The next worst province was the Central Provinces, and yet it was not only not quite as bad as ours but not half so bad as ours. The figure there was 1.3 per cent. and higher up was the Punjab which was three times as good as we were with 1.9 per cent. This was the state of affairs in that year; let us see what advance we have made in the five years succeeding; that is to say in the quinquennium 1902—07. In 1903, the allotment of funds from the five lakh grant revealed a certain readiness on the part of the people to give the advantages of education to their daughters, which in some districts was very marked. From this five lakh grant to these provinces Rs. 33,317 were given to the construction of model schools for girls. The number of institutions rose from 612 to 658, reaching, after a lapse of 32 years, the figure previously attained in 1870-71. It meant that the fatal retrenchment of the expenditure on schools set back the progress of the education of girls by 32 years. We were in 1903 just where we were in 1870. This is the official statement in the quinquennial report. In the year 1904 a Committee of Indian gentlemen was appointed to investigate the difficult problem, how to popularise the education of women. The report was submitted by Mr. G. N. Chakravarty, the Chairman of the Committee. On that the Director remarks as follows:—'The carrying out of the suggestions of the Committee in their entirety would have demanded an additional charge of fully six lakhs a year, a sum by no means excessive for the object in view, but yet considerably beyond the power of Government to provide with its present resources. In order, therefore, to bring the cost within more moderate and, as I hoped, attainable bounds, I modified to scale of expenditure and reduced the estimate for new charges that would be incurred

to something like three lakhs of rupees a year. But unfortunately the Government had to announce with regret not only that this reduced amount was not available, but that there were no funds to make any further allotment for the purpose during the following year. Thus the financial straits of the Government made it impossible to make any large and determined effort for the furtherance of female education, however desirable and even necessary such a measure might be. This admission, made as it was with regret, was received with disappointment by those who had welcomed the action of Government in appointing the Committee as implying a promise of better things.' The Director concludes: 'Thus it appears that while the lines of advance have been marked out, the great forward movement is indefinitely postponed.' This was at the end of 1907. And the report of the Director for the next five years shows that during the five years the number of institutions rose from 1,026 to 1,265, the number of pupils rose from 38,234 to 52,316. The increase in number was small both absolutely and relatively than in the preceding five years. Then the Director says: 'Though the period has little to show in the way of advance, the way has been paved, and much time and energy have been devoted to overhauling and strengthening the machinery of organization.' As Mr. Sanjiva Rao himself remarks after making these quotations, one cannot help feeling this story of female education is a painful one. Considered from the standpoint of history these provinces form one of the most important divisions of India, Lucknow, Agra, Allahabad, Meerut, Cawnpore, Kashi, Ajodhya, Muttra and Brindaban, all those have memories and traditions which are of abiding interest. It was to Benares that all the scholars of old flocked as the sacred centre of learning and religion. In the period during which the Moghuls ruled over the destinies of this country these provinces formed the centre of intellectual and political life in India. It is humiliating and

sad to think of vanished glories. It is an irony of fate that these provinces where the first attempts at spreading education among the people were made, should practically be the last of all provinces in India in point of education of girls.

It is only very recently that our Lieutenant-Governor His Honour Sir James Meston has kindly paid attention to this matter and his words have been in part taken in clause (b) of the resolution. He said that there has been in some places stagnation and in others actual retrogression and that to a considerable extent the problem of female education has been completely neglected.—*The Leader*.

WOMEN'S UNIVERSITY FOR INDIA.

Addressing a public meeting at Allahabad, Miss Krishnabai Thakur, M.A., Principal of the Poona Mahilashram, and Prof. Karve of Poona, made interesting statements on the proposed Women's University for India.

In the course of her speech, Miss Krishnabai Thakur referred to the little attention that was paid by them to the education of women in this country, and said that in the matter of female education their difficulties were far greater than in the matter of the education of boys. Such customs as child marriage, *purdah* system and other similar customs stood in the way of the spread of female education. Besides these, there was another difficulty that came in the way of female education and that was the ignorance of the women themselves. In the Bombay Presidency some of the ladies could be educated and in fact were educated, but the present system of education was not suitable to them in the present condition of their society. It was expensive in many ways and it would take a very long time to complete the courses, because the medium of instruction was a foreign language. Moreover, in the courses that were followed there were many

subjects which were not really necessary for the practical work of girls. Under the present system a girl had to learn every subject through the English language. She would not therefore be able to understand the subject well and before she would begin to understand it, would be taken away from the school and would enter married life. That meant she would leave school almost with only a tasting of foreign language. They knew very well the evil effects of half education. It was well said

Drinking little intoxicates the brain,
Drinking deep sobers again.

The girls would enter married life with a little knowledge, and this naturally would make them boastful and careless about their society, about other women who to them would seem quite uneducated and therefore not to be paid attention to. The uneducated women taking these girls as samples would argue that if education made girls unmannerly, knowing nothing but about their dress what was its use. On account of these so-called educated girls, progress of female education was all the more hindered. Therefore they must have some such course as would make the girls fit for the work which they would have to undertake. The present course was expensive as already pointed out. Those ladies who were in favourable circumstances would welcome it, but all could not go on learning for such a long time as the present course would necessitate. Therefore, in order to give them some education complete in itself they should try and frame some courses which would be cheap, easy and complete. For that, the first thing they had to do was to give instruction through the medium of vernaculars. If they did so, the girls would be able to understand not only what the teachers would tell them but would understand the spirit of the books they read; and when they understood what they were reading a taste for education would naturally spread among them. With this object a University for women was going to be established by

Prof. Karve. In that institution only such courses would be introduced as would be useful to women. The University would pay attention to the education of girls from the primary course to the collegiate course and all the courses would be so framed that a girl of moderate means would be able to finish them in about 10 or 12 years. Although the name of the University was Maharashtra Women's University it was meant for the whole of India and the medium of instruction was not to be Marathi alone but the vernaculars of the different provinces. The University would be established in about a few months. The Hindu Widows' Home Association was going to start a College and the subjects taught therein would be the most necessary ones, domestic economy, etc. Instruction would be given through the medium of vernaculars and she was sure that ladies who would learn there would be able to understand their duties and their responsibilities. Women had to share the ideals of their brothers. They had not only to work shoulder to shoulder with them but often guide them when they might be going wrong. On the shoulders of women lay a far greater responsibility than on those of men, for the influence of women at home was unbounded. If they were ignorant as at present, they were very often foolish and superstitious. Even in the present condition they still maintained the influence which they wielded in the past. They were going to build up a nation and for that they must pay attention to their homes and make them perfect and try to bring perfect unity there. To do that they must educate their women so that they might be able to share their ideas and sympathise with their ambitions. They must be able to understand what great responsibilities lay on their shoulders. Women were not born simply to be menial servants; they were born to build up the character of their children, the character of the nation; it was the women who would make a nation. If she had to understand her duties and responsibilities well she must be highly educated.

Prof. Karve, who followed, said that they had to educate either a man or woman from the point of view that each is a human being. A woman would be able to think and judge just as well as a man could and, therefore if for a man education was to be given to enable him to think and judge properly, the same education should be given to a woman also. If they admitted this principle, it would follow that they should allow a woman to choose her own course as they would allow a man to do. They would educate their boys, but they would not force them to take a particular line of work. They would ask them to think for themselves and decide what line they would follow in their life. Women also should be given the same right. They should be allowed to think for themselves what they would do in life. Therefore, women should be so educated that they might be able to think for themselves. If they wanted married life they should be given education suitable for such life; but if they wanted to postpone that life for some time and to study further they should be given higher education. His idea was that a woman should be left free to decide her own course, the parents' duty being to supply advice. He wanted them to clearly understand the ideal and try to do what little they could in this direction. At present, he said, they had to correct their attitude towards women. What did they think about women at the present day? They considered that women were for the service of men, even when people did not mean that, their actions showed, that they really thought that women were for the service of men, that they were inferior beings. The same was the case with Japan, as appeared from the pamphlet of the Japanese Women's University which was established in 1900. It was stated therein: 'There is a widespread tendency to regard a woman merely as a tool or a machine destined solely for service at home or for the propagation of family line; and in opposition to such extreme tendencies, we feel the necessity of educating women as human beings, that we may be able to call forth their conscious-

ness as personalities with infinite aspirations and longings.' The promoters of the Japanese University had to correct the attitude of the Japanese public towards their women. He thought Indians stood exactly in the same condition as the Japanese were in this matter. That attitude must be corrected.

Then he would consider what principle the proposed University should aim at. The promoters of the Japanese University hit upon just the proper line of action. They saw in what condition their women were and they framed their courses just suited to their condition. They said:—'Our aim in establishing the Women's University is neither to copy the higher institutions for women in America and Europe; nor to rival the men's University courses in this country. What we aim at is so to frame our schedules of study to suit the mental and physical conditions of women at present, and to gradually raise the standard in accordance with general progress.' They did not try to aim at Western Universities or Western Colleges; they did not even aim at their own Universities for boys because they knew that to do that would be put a great bar in the course of women's education. If they pitched the courses too high they would not be within the reach of many. So they kept them low so that they might be within the reach of ordinary women. What was the result? The result was that even women of 30 and 35 joined schools and colleges and wanted to become graduates of their University. He did not know what view the Senate and Syndicate of the proposed University would take with regard to the courses, but personally he thought that in India they should frame courses in such a manner as to bring them within the reach of many, gradually raising them. He thought that the courses should not be made harder than they were till 1860 in the Indian Universities, and if they had courses framed now in that manner and if at the end of each decade they made gradual increases he thought

that in about 30, 40 or 50 years women's education could be carried to the same high level as boys' education. That was his idea, but there were some who did not like that idea. They said that the course he proposed would lower the value of the degree. He would say they should not mind that the value of the degree would be lower than that of the present Universities. There should be a larger number of women who would be able to take advantage of higher education that could be afforded in the colleges of this University and would have a chance of learning higher ideals through the vernaculars. In this University it was proposed that English should be made a compulsory second language for the importance of studying English language could not be overrated. Even a country like Japan which had got nothing to do with English language made English compulsory in their Women's University. When Japan did that was it not necessary that India, where every work was carried on in English, should also do the same? The store of up-to-date knowledge could be found in English alone, and therefore they had to learn it. Even their women had to learn that language. But if they wanted that their women and even their men, should know English well the teaching of all subjects through the medium of that language was not the best method. That would lead to cramming. This was found to exist not only in high schools but in colleges as well, and from his own experience of college students he could say that about 50 per cent. of students could not really understand things while they were explained in English. They might have English text-books, but the subject should be explained in the vernaculars. There was a band of people in Bombay who were trying to get this reform introduced. In the case of girls they should not follow the methods and courses of instruction laid down for boys.

The speaker next turned to answer some of the objections that were raised to his scheme of a

Women's University. It had been said that it would be difficult for the University to get students since they valued only Government institutions and Government degrees, and unless the University was recognised by the Government there was no use of having the University at all. He said that this University would begin and carry on its work without depending upon the Government either for help or for recognition. If any support came from the Government unconditionally they would be very glad to have it; but if it came with hard conditions they would rather keep themselves away from it. (Applause.) At present they would have to apply to the Director of Public Instruction for permission to introduce even a text-book and he instanced a case in which a gentleman, who applied to the Director for sanction to place on the list of text-books a book on Algebra in which there was an example having reference to Swadeshi movement, was told by the Director to remove that example if he wanted that the book should be placed on the list. Instead of submitting to such humiliating conditions they would keep themselves away from the Government support. At present 80 per cent. of the school-going women would go for general knowledge and not for service, and it was true that even these would like to see that their education had some kind of recognition. His hope was not much on the value of the degrees this Women's University would give. At present it was not within the reach of every girl to pass Matriculation and enter the College-course. With the energy she would have to spend in becoming a Matriculate of any present University she could become a graduate of the Women's University. In the case of girls who would marry at the age of 15 or 16, if she had a certificate of the Matriculation of the Women's University about the time she would marry that would be an asset in her life. Those who were intelligent and were sure of having enough time to take the Matriculation of the men's University could follow that course and he would certainly not ask them to take the

course of the Women's University. He was sure that a sufficient number of women would be attracted to this University. Further, the University was going to train teachers for primary and secondary schools and this line of work was sure to attract women, and the Government would, he thought, in the long run give preference to those who had certificates of the University. As regards funds, he said he had none, and he had not even calculated how much it would cost to maintain a college, and build a University. It might be an utopian scheme, but he had such too utopian schemes before, which were now accomplished facts—the Widows' Home and Mahilashram—and

this was the third scheme which he was going to take up; and he hoped that this would succeed as the other two if there were proper workers behind and if the people responded to the appeal. He knew they would progress very slowly but he was sure that after some years the University would become a University respected by the people and by the Government. He appealed to the public to enlist themselves as voters—graduates by paying Rs. 10 a year and non-graduates Rs. 5 a year. Even if he could not get public help he would not leave the project but would go on, even on a smaller scale—*The Leader*, 12-2-16.

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THE HISTORY OF THE PALLAVA
DYNASTY.

SECTION III.

THE PERIOD OF EARLY SANSKRIT
CHARTERS.

From the fact that the Sanskrit charters have been discovered, as a rule, in the modern Nellore and Guntur districts (32). Venkayyah surmises that the dynasty did not stay at Conjeeveram in this period and that

some indigenous tribes of the Tamil country had probably driven them to the north. However it might be, we have reasons to believe that their headquarters in the north were evidently three places known as Dāsanapura, Palakkāda and Mēnmaturā; because it is from these that their charters have been issued. The exact age of this period of sojourn in the north is not known, but Mr. Venkayyah placed it on the authority

(32) One of these, however, was discovered at Udayandiram in N. Arcot Dt.; but Prof. Kielhorn questions its genuineness on palaeographical and other grounds. It was issued by Nandivarman, the son of Skandavarman III in the first year of his reign. (See *Ep. Ind.*, III, 142—7 where Kielhorn edicts the inscription. This grant has also been edited by Foulkes in *Ind. Antq.*, VIII, pp. 167 ff., and in *Salem Manual*, II 349 ff.). The other grants are the Uruvapalli grant of Yuvamahārāja Vishnugopavarma, edited by Dr Fleet in *Ind. Antq.* V, pp. 50 ff.; the Pikira grant of Simhavarman II edited by Prof. E. Hultzsch in *Ep. Ind.* VIII, 159—63; and the Mīngalūr grant of the same king, edited by Dr. Fleet in *Ind. Antq.* V, 154 ff. They are respectively issued from Palakkāda, Mēnmaturā, and

Dasanapura. Burnell identified Palakkāda with Pūlicat and considered it to be the Telugu equivalent of the Sanskrit Das'anapura. But Hultzsch and Fleet are against this view, Venkayyah points out in his *Ep. Rep.* 1904-5 that they should be in the Nellore Dt. See *Ep. Ind.*, VIII, p. 161. In *Ep. Ind.* II 397-8, Dr. Hultzsch gives the fragment of an inscn. of Vīra Kōrchavarman found at the village of Darsi (Nellore Dt.), which belonged to the same period. The Chūra grant of Vijaya Vishnugopavarma (See *Madras Ep. Rep.* 1914, p. 82) attributed by Mr. Krishna Sastri to the beginning of the 7th century A.D. and either to a son of Simhavarman II or a king of the period intermediate between the Sanskrit charters and stone inscriptions, seems to me to be definitely attributable to a son of Simhavarman of the name of Vishnugōpa.

of Dr. Burnell, in the 5th and 6th centuries A. D. Unfortunately we do not know how many kings ruled in this period and how long each of them ruled. The charters give no dates whatever, nor do they enlighten us on the political events of the age. All that they afford is a string of names of the monarchs who are said to have successively held their sway. Three of the plates give this genealogy —

Skandavarman I.
|
Viravarman.
|
Skandavarman II.
|
Simhavarma I.
|
Skandavarman III.
|
Nandivarman.
|
Yuvārāja Vishnugōpa.
|
Simhavarnan II.
|
Vijaya Vishnugōpavarman?

Politically the most important fact to be noticed in this period was the great rivalry with the Kadambas. The legends of the Kadamba dynasty trace their descent (33) from a mythical Trinētra Kadamba, alleged to be the son of Siva and Pārvati, and raised to the throne in the kingless region of northern Kārṇāṭaka by the choice of a State elephant. Trinētra was followed in the fourth generation by one Mayūtrayarma who had the credit of establishing the family firmly in power, so much so that he had 77 successors. A very valuable inscription discovered at Talgunda, on the other hand, gives another and a more valuable version. It says that the Kadambas were a Brahmanical dynasty, that they belonged to an orthodox Brahman family of Sthānakundur (Talgunda), a village founded

by Trinētra for settling Brahmans from the north, that the family became so called as they reared a Kadamba tree near their house, and that their elevation to royalty was due to the pride and dignity of an adventurer among them named Mayūras'arma (34). The date of this adventurer is not exactly known, but he has been assigned to the third century. An enthusiast in the prosecution of Vedic studies, Mayūras'arma was once gone, with his Guru Viras'arma, to the Pallava capital, which was in those days as much a centre of learning as it was the seat of royalty, and became involved there, for some unknown reason, in a quarrel with a Pallava horseman. We do not know he fared in it, but we may believe that he came out second best. The sense of defeat embittered his sensitive mind, and made him reflect on the sad position of the community of which he was a member. Attributing the treatment he had received to the political inferiority of the Brahmin, his dependence on the Kshatriya, his helplessness, and his resourcelessness, he aspired to establish a kingdom wherein the Brahmin would be the sovereign, where valour could be the handmaid of wisdom, and the mastery of politics would be combined with the worship

(34) Inscn. at Talgunda, (Sk 176) *Mys. Gazr.* I. p. 298, and *Mysore and Coorg from the Inscns.* 1909 edn. p. 22. See also *Antiquities* II. 180. The inscn. was first discovered by Rice in 1894 (see *Ep. Carna.*, IV. 1-5), published by Buhler in the *Academy* in Sept. 1895; summarised by Dr. Fleet in his *Dynas. Kan. Dts*; edited by Rice in *Ep. Carna.* VII. p. 200 ff; and lastly re-edited by Prof. Kielhorn in *Ep. Ind.* VIII. pp. 24-36. It records the construction of a tank by Kākusthavarma near a S'iva temple at which Sātākarni and other kings of old had worshipped (at Sthānakundūra, modern Tālagunda. Kielhorn assigns the inscn. to the period between the 5th and 7th century, most probably to the 1st half of the 6th century, but it is too late.

of learning in the same hands, where he could play the ruler instead of the dependant. Inspired by the idea, in short, of reversing the relative position of the Brahmans and the Kshatriyas, Mayūras'arma abandoned the peaceful career of a scholar for the dangerous and enterprising life of a soldier. "With the hand dexterous in grasping the Kus'a grass," says an inscription in a language of fine imagery and finer sympathy, "with the hand dexterous in grasping the Kus'a grass, the fuel, the stones, ladle, the melted butter and the oblation vessel, he unsheathed a flaming sword, eager to conquer the earth." Collecting a band of adventurers, like himself, Mayūras'arma evidently attacked the Pallava guards of the frontier, and after overcoming them, escaped to the inaccessible forests at S'ri-Parvata (identified by Kielhorn with Sri-Saila) and there levied tribute from the great Bāṇa (Brihad Bāṇa) and other surrounding kings. Nothing is known about this Bāṇa. Rice (35) suggests that he was a descendant of the Pauranic Mahabali, that he was probably connected with Mahābalipuram, and that he was the master of the region near Kolar. Venkayyah surmises that Brihad Bāṇa was perhaps a Pallava feudatory (36), whose dominions were situated "somewhere in the Ceded Districts," and whose inability to resist the Kadamba adventurer must have caused

(35) See *Mysore and Coorg*, 16-17. These Bāṇas were distinct from the later Bāṇas who played an important part after the 8th century. Later on they were the masters of the region known as Andhra-patha, the well-known Vadugavali 12000, and of the 7½ lakh country with Tiruvallam or Vānapura, 40 miles N. W. of Conjeeveram for capital. Rice believes that the Bāṇas reigned over the east coast of the peninsula even prior to the rise of the Pallavas and that they gave their name to Mahābalipuram. *Ind. Antq.* X, 37.

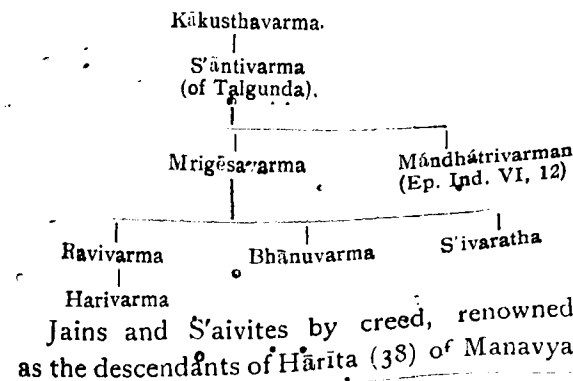
(36) *S. Ind. Assocn.* pamphlet; *Ind. Review*, March 1907, p. 187.

anxiety to the sovereign power. The latter dispatched an army against the new conqueror, but he, to use the language of Mr. Rice, swooped down upon them like a hawk and completely defeated them. The Pallava monarch, whoever he might have been, saw the prudence of a policy of conciliation, and concluded a costly peace with the valiant adventurer acknowledging him, we are told in a characteristically exaggerated manner, as the master of the region extending from the Amarāṇava, the western ocean, to the confines of the Paramara country, evidently the plateau of Mālava. The Kadamba kingdom which thus came into existence was evidently a feudatory kingdom, its king being bound to recognize the sovereignty of the Pallavas; but it was a very extensive kingdom, not less extensive in fact, if we are to believe the inscription, than the remaining Pallava dominion itself. The statement that it included the whole of the Western Dakhan might be an exaggeration; but there can be no question that it comprised the major portion of modern Mysore and the Southern Bombay districts of Belgaum, Dharwar, Bijapur and N. Canara. Indeed we know that their chief seats of activity were the cities of Palasika or Halsi in the Belgaum district and Bāṇavasi or Vijayanti in N. Canara, besides the hill-forts of Uchchas'ringi and Triparvata.

The Kadamba kingdom, which thus came into existence seems to have given immense trouble to the Pallava kings. The knowledge which we have of the early Kadambas is very meagre. The Talgunda inscription tells us that Mayūravarma was followed in regular succession by Kaṇḡavarma, Bhagīratha, Raghu, Kākustha and S'āntivarman, in whose time the inscription was engraved. Of these Kākustha

(33) See *Mys. Gazr.* I, 295, and Sb. 179.

seems to have lived in the 4th century as he is said to have given a daughter of his to a Gupta king whom Rice identifies with Samudragupta, and another to a contemporary Gaṅga king, Taṇḍala Mādhava (357 A.D.) A collection of six copper (37) plates discovered in 1866 in a mound three miles north of Halsi, and attributed to the 5th century A.D., seems to continue the genealogy as given by Talgundā epigraph. It is as follows:—



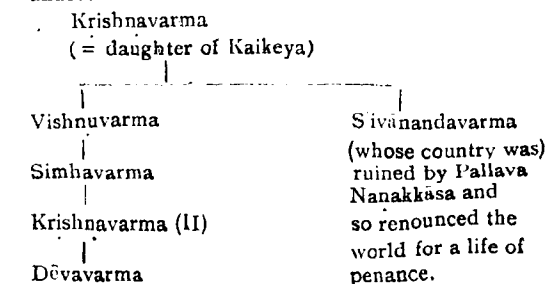
(37) Impl. Gazr. Bombay Presy. Vol. II, p. 21. Halsi is called Palāshika, Palshi, and Halasige in inscriptions. See *Antiquities*, II, 179; *Ind. Antq.*, VI, 22. The plates of the early Kadambas were discovered by Dr. Fleet, first published in *J. Bo. R. A. S.* Vol. IX and then *Ind. Antq.* VI, 22ff. See also *Ibid.*, VII, 33ff. For a grant of Vijaya Śiva Mādhātī Varman who was either the younger brother or the paternal uncle of Mrigeśavarman, see *Ep. Ind.*, VI, 12-16. The grant was discovered by Rice in 189, and summarised by Fleet in his *Dynas. Kan. Dts.* See *Ibid.* 17ff. for the Bannaballi plates of Krishnavarman II.

(38) The kings had the titles of the lords of Vijayanti, the members of Mānavya gōtra, Hārīti putras, and *Pratikritasvādīyāyacharehāparas* (प्रतिकृतस्वाध्यायचर्चपराः) or those "who studied the requital (of good or evil) as their sacred text." Dr. Kielhorn believes that the last epithet alludes to the singular position of the Kadambas in being both kings and Brahmins, in studying the Vēdas on account of their caste and later on for the requital of good and evil also. Another interpretation is that they were "well versed in repeating the sacred writings one by one." See *Ep. Ind.* VI, 17 and *Ibid.* VIII, 148; and *Mys. and Coorg*, 1909, p. 23; *Ep. Carna.* VIII, 2.

gōtra and as kings in whom erudition and royalty were combined, these kings looked upon the Gaṅgas and the Pallavas as their inveterate enemies; for it was in them that they met the obstacles to their expansion southward and eastward. Mrigeśavarman, for example, boasts of having been the fire of destruction to the Pallavas. Ravivarman, again, is said to have vanquished Chandananda of Kānchi. A third, Krishnavarma (39) by name, who, Rice considers, was the 2nd son of Kākusthavarma, who married a Kēkaya (or Gaṅga) princess and who founded a collateral viceregal dynasty of his own, is said to have engaged, though without success, a Nanakkasa Pallava Raja some time in the middle of the 5th century. These frequent engagements shew that the Kadamba peril was a real peril, and it ceased to be so only when it was ended by the Chālukyan Kīrtivarman in the latter part of the 6th century.

But it was not the Kadambas alone that disputed the Pallava supremacy in this period. There were the Gaṅgas of the Gaṅgavāḍi 96000 who, as I have already pointed out, had made themselves powerful in the third century by the conquest of Koṅgu itself.

(39) Krishnavarma's line is given by Rice as in under:—



See *Mys. and Coorg*, 24, based on Dg. 161 (Anaji inscription) and *B. L.*, 121. Vide also Sewell II, 179; *Ep. Carna.* VIII, p. 2. Prof. Kielhorn puts Dēvavarman in place of Śivānandavarman and thus differs from Rice. See *Ep. Ind.* VIII, p. 30.

The Gaṅga capital was, as has been already mentioned, originally at Kuvalālapura (Kolar), but some time in the 3rd century it was transferred to Talakāḍ on the Kaveri, a place which remained as the seat of Government till the 7th century. Legends of an incredible nature have, as in the case of every older dynasty, gathered around the Gaṅgas. (40) The story is that they were

of the solar or Ikshvāku race; that their ancestor was Harischandra, the son of Dhananjaya, the ruler of Ayodhya. Harischandra's queen, Vijaya Mahādēvi, it is said, had, as a result of her bath in the sacred Ganges, a son named Gaṅgadatta. A descendant of this Gaṅgadatta was Vishnugupta, who was a great sacrificer and who had the rare distinction of receiving an elephant from Indra himself. Vishnugupta had two sons Bhāgadatta and Śridatta who respectively became the masters of Kaliṅga and Kārṇāṭaka. Even after this division the descendants of Vishnugupta continued to rule in the north till, in the time of a later ruler Padmanābha, the attack of a king of Ujjaini led to the emigration of his two sons, his daughter and their Brahmanical followers, to the south. The immigrant princes were of the names of Daḍiga and Mādhava, and it was they that were destined to be the founders of the Gaṅga dynasty of Kolar or Talakāḍ. The tradition attributes their success in the south to a great Jain teacher

Simhānandi. (41) Interested in the story of the princes, he was generous enough to impart to them a proper training and prepare the ground for their foundation of a kingdom. The goddess Padmāvatī (42) herself is said to have entered into the scheme and presented Mādhava with a sword which he used with success and with glory.

This story, found in the later records of the dynasty, is remarkable for a few facts. It shews, in the first place, that the Gaṅgas were immigrants from the north and that the Gaṅgas of Kaliṅga and those of Mysore had the same ancestry. It further shows that the dynasty was bound to be a Jain one in consequence of the valuable help it received from Simhānandin. It is defective in the respect that it does not give the date, but we have already seen that, according to the *Koṅgudēśarājyakkal*, Mādhava I, or Koṅguivarman as he was called, lived about 189 A.D. and ruled for 50 years, during which time he conquered the Baṇas (43) and other neighbouring kings. Mādhava's successor, Kiriya Mādhava, the son of Daḍiga, earned the reputation of a literary man, a patron of literary men, an expert in the science of *Niṭisāstra* (the science of polity) and an authority on the law of

(41) Rice says: "He is named as a great poet by Indrabhūti, in his *Samayabhūṣana*, along with Eṭāchārya (Padmānandi the Guru of Śākatāyana) and Pūjyapāda (T. A., XII 20). In S. B. 54 he is mentioned next to Samantabhadra, who belongs to the 2nd century." *Mys. and Coorg*, p. 31, footnote.

(42) S. B. 54

(43) Vide also Nj. 110, which records a grant by him of Kudiyāla in the Nanjangūd Taluk. in 103 (S.) Mādhava also erected a chaitya near Shimoga on his way to subdue Koṅkana. In 1913-14 Mr. Narasimhachar discovered a copper plate charter of Mādhava I, which he attributes to about A.D. 240. See *Mys. Ep. Rep.*, 1913-4, p. 34.

(40) Insens. in the Nagar and Shimoga Taluks (e.g., Nr. 35, Sh. 10, 4, 64) of the 11th and 12th centuries give this tradition and the absence of it in earlier records has made its genuineness, in the eyes of some scholars, questionable. But Mr. Rice believes that older records might have been lost or destroyed. See *Mys. and Coorg*, 30.

adoption in elaboration of which he wrote the *Dattakasūtra*. His son and successor Harivarman(44), a king who had the unique reputation of having employed elephants in war, removed the capital to Talakād. (Dāḷavanpura). His son Vishnugōpa(45) introduced an important innovation in the religion of the royal family by renouncing Jainism and embracing Vaishnavism. His son or grandson, Taḍaṅgāla Mādhava,(46) was, on the other hand, a worshipper of Tryambaka (Śiva). He married the daughter of the Kadamba Kākusthavarma and revived the system of large endowments to Brahmans and festivals. Avinita,(47) his son and

(44) A grant of his discovered so far south as Tanjore mentions his name in the Tamil form Arivarman, (*Ind. Antq.* VIII, 212), and records the gift of the village of Oṛekōdu (Mysore Taluk) to a Brahman Mādhava Bhatta who vanquished a Buddhist in controversy. Both Burnell and Fleet consider it spurious (see *Ind. Antq.* VIII, p. 212.) Another grant (The Tagadūr plates Nj. 122) dated 266, records the gift of a village to a Govinda soldier. For details see *Mys. and Coorg*, p. 33.

(45) D. B. 67. He is also said to have conquered "the East country." *Antiquities*, II, p. 190.

(46) D. B. 68. According to Sh. 4 he was the son of Prithvīganga who was the son of Vishnugōpa. According to a different account he was adopted by the latter, but "had to resign his crown in favour of a son subsequently born to Vishnugōpa." That son was named Krishnavarma. Krishnavarma was succeeded by Dindikara Rāya alias Harischandra. He was deposed by his minister who raised Kongani Mahādhirāja II (of the family of Mādhava III) to the throne. It was this Konguni Mahādhirāja's son that was named Durvinīta or Avinita, "the unjust," who is said to have conquered all the kings of the peninsula. It will be seen that this version differs in certain fundamental respects from Rice's. See Foulke's *Salem Manual* and Sewell's *Antiquities* II, 190. For a few other insens. of his, see *Mys. and Coorg*, p. 34.

(47) My 72, the first of his reign, dated probably 430 records a grant to two Jain temples at Uranūr and Pārūr. D. B. 67 (459 A. D) refers to the 18 castes. D. B. 68 enables Rice to come to the conclusion that his reign ended in 482.

successor, was inclined to Jainism in consequence of the influence which a Jain scholar of the day, Vijayakīrti, possessed over him, and therefore made endowments to Jain temples; but that he was equally solicitous to Hinduism is evidenced by the facts that he maintained the castes and religious orders intact and that he was a devoted worshipper of Hara. The next monarch Durvinīta,(48) whose accession Rice attributes to 482, was a great grammarian and scholar and the author of the *S'abdavāṭara*, and a commentary on Bhāṛavi's *Kirātārjunīya* and a Sanskrit version of the Paisāchi *Vaṇḍakatha* (*Bṛhadkatha*). A powerful king, he conciliated the contemporary king of Punnād on the border of Mysore and Koṅgu by the marriage with his daughter, and disputed the supremacy of the Pallavas. He is said to have captured Kāḍuvetti (i.e., the Pallava king) on the field of battle and placed his own daughter's son Jayasimha Vallabha, a Chālukya, on his throne. His son Mushkara completed the task of expansion which his father had set before him by encroachments beyond Dharwar(49) and by his marriage with the daughter of the Sindhu Rāja.

(48) Tm 23, (*Ep. Carna* XII, 2); Mr. Narasimhachar points out on the authority of the Gummaredipura plates that Rice is wrong in making this king the disciple of Puṇyapada and that he was himself the author of the *S'abdavāṭara*. *Mys. Arch. Rep.* 1911-2, p. 35. Mr. Narasimhachar also draws attention to the circumstances of Durvinīta's accession. His father Avinita had tried to give the crown to another son and the chiefs Kāḍuvetti (i. e., Pallava) and Vallava (i. e., Rāshtrakūṭa) helped in the usurpation. Durvinīta, however, succeeded in getting the throne and in retaliation defeated Kāḍuvetti, and placed his daughter's son Jayasimha who was a Chālukyan by his father, on the throne. See *Coorg Inscns*, 1913, 5-6. Mi. 110, (*Ep. Carna* XII, 1-2); D. B. 68, C. M. 50, Nr. 35, etc. *Mys. and Coorg*, p. 36.

(49) *Ind. Antq.* XIV, 230 and VII, 101.

These are the princes whom Rice would attribute to the 5th and 6th centuries and whom we ought to consider the enemies of the Pallavas of the early Sanskrit charters. This chronology, however, has been disputed, by Dr. Fleet(50). He attributed Mādhava Koṅguivarman, the founder of the dynasty, for example, to the 10th century, disputed the correctness of the *Koṅgudēs'arājakkal*, and dismissed the Gaṅga plates on which Rice depends as spurious. A new Gaṅga record discovered at Penukōṇḍa discovered in(51) 1913 however made Dr. Fleet revise considerably his opinion. Still it is divergent enough from Rice's views. This Gaṅga record is unique for two facts. First it gives (I quote here from a recent article of mine in the *Review*) an unusual genealogy of the early Gaṅgas, as it gives between Mādhava I. and Mādhava II. (in whose time the record was made) a new king named Ayyavarman and not the two usual figures Harivarman and Vishnugōpa. Secondly it mentions the contemporaneity of Ayyavarman with a Pallava king named Simhavarman and of Mādhava II with another Pallava, Skandavarman. Thirdly, in its characters, its language, its orthography, and its execution, it belongs, in Dr. Fleet's opinion, to somewhat before A.D. 500, and what is more, a genuine record unlike the almost all other Gaṅga ones. Now, Dr. Fleet discusses the question whether the exact dates of the two Pallava kings above referred to can be ascertained and, if a defi-

nite conclusion is possible, whether the relative chronology of the Gaṅgas can be placed on an equally definite basis. On the ground that the new Penukōṇḍa record of Mādhava II. bears a close resemblance to the records of Simhavarman II. already published, Dr. Fleet sees in Ayyavarman's suzerain the Pallava king Simhavarman II., and in Mādhava's suzerain one of the two Skandavarman who figure in early Gaṅga chronology(52). There are no inscriptional dates, unfortunately, either of the Śaka or any other era, to shew the exact dates of these Pallava monarchs; but a Digambara Jain work on cosmography entitled the *Lokavibhāṣa* recently brought to the notice of the world of scholars by Mr. R. Narasimhachar, says that it was originally translated from Prakrit into Sanskrit by Simhasūri and that a copy of it was made by Sarvanandin in S. 380 (A.D. 458), which is said to be the 22nd year of the reign of a Pallava king named Simhavarman. Dr. Fleet contends that the mention of a Śaka date as early as 380 in Southern India is incredible(53) and that it must have been put in by the copyist as a result of his own calculations, but the correctness of the astronomical details given in the treatise shows that a Simhavarman ruled Kāंची from 436-7 onward, and Dr. Fleet believes that this Simhavarman must be Simhavarman II. of the Māṅgalūr and Pīkīra records. From this Dr. Fleet fixes the following detailed chronology in the Gaṅga and Pallava affairs:—

Simhavarman II. begins to reign. A.D. 436	
He crowns the Gaṅga Ayyavarman „	450
His 22nd year „ „ „ „ „	458
Skandavarman III. begins to reign „	460
He crowns Mādhava II. „ „ „ „	470
Mādhava's Penukōṇḍa record „ „ „	475

(52) The Māṅgalūr and Pīkīra grants. See *Ep. Ind.* VIII, p. 161.

(53) See pp. 476-9 for the history of the Śaka date.

(50) *Dynas. Can. Dts.* p. 11-14. According to the Mercara plates they date from the commencement of the Christian era, but Fleet doubts the authenticity of these plates and from certain inscriptions at Lakshmiśwara in Dhārwar (see *Ind. Antq.* VII, 101-112) believes that Mādhava I. ruled about the beginning of the 10th century.

(51) See *Madr. Ep. Rep.* 1914, and *J. R. A. S.* Oct. 1915.

It will be seen from this that Dr. Fleet attributes the early Gaṅga kings to a century later than Rice. His Mādhava II., for example, was crowned at 470 while according to Rice he (Mādhava III.) came to the throne about 357 and ruled till 370. But all agree in the fact that the Gaṅgas were formidable rivals of the Pallavas and their aggression, like that of the Kadambas, stopped only with their conquest by the Chalukyans.

We now enter into the most eventful and at the same time the best known period of Pallava history, the period of stone inscriptions. This period is characterised by the advent to power of a vigorous line of kings and by their rivalry towards a new and formidable dynasty which came into existence at this time in the west, and which challenged, after overthrowing the Kadambas and Gaṅgas, the Pallava power. The new dynasty was the celebrated Chalukyan dynasty of

The beginning of the struggle with Chalukyas.

scribing the events which led to the advent of these, it is necessary to consider a remarkable change which had taken place in the religious belief of the Pallavas, a change which introduced a new epoch in the religious history of South India. This was the assumption of an entirely original and unique title—the title

of Bhāgavatas or men whose Bhāgavatism as a State creed. Their adoption of the feet of Bhagavān or Vishnu—by the kings of this period. This is the first time we find in South Indian History the use of the title *Bhāgavata* in royal charters, in official records. Such an official recognition can only mean that the Bhāgavata creed became

a State creed, that it came to be professed for the first time by the most powerful of the South Indian dynasties. We therefore pass on in the next section to consider the circumstances under which it came to South India, its significance in religious evolution and its effect on the people.

V. RANGACHARIAR.

Insight into Zemindari Life **VIJAYAKĀRUNYAM** A ROMANCE IN TAMIL

BY

MR. A. BALAKRISHNAN, B.A.

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INDIAN PROFESSORS AND RESEARCH-WORK.

A VERY interesting and useful discussion has been going on for some time in the columns of the Press—Educational and otherwise—on the subject of “Teaching and Research in Indian Colleges.” Started some time ago by the Editor of the well-known monthly—*The Indian Education*—the question has since been taken up in right earnest by the Indian Press and divergent views have been expressed. By one school of writers and educationists it is maintained that “it is a mistake to appoint as Professors in Indian Colleges men interested in and noted for research work more than teaching,” in other words, that it is capacity for teaching rather than for research work that should be considered in appointing Professors. As against this view, it has been urged by another school that research work is highly necessary, if not indispensable, for Indian Professors and that this is needed as much to improve the quality of their own teaching as to advance the welfare of their country and the cause of knowledge. Having regard to the magnitude of the subject as well as the momentous issues involved in it, it need not be said that the subject is certainly deserving of very careful and serious consideration at our hands. It is only as a humble contribution to the discussion of the subject that the present paper has been offered.

I

It is well-known that the main, if not the sole, function of Indian Professors and Lecturers is, under present conditions, confined to teaching work. Even in the advanced countries of the West a certain amount of teaching work is really turned out by Uni-

versity and College Professors. Even if some original research were expected at their hands, lecturing work must still continue an important, if not the main function of most Indian Professors.

The question that will first be considered is as to how far it may be necessary for Indian Professors, in connection with teaching work, to pay attention to original research. Is research work essential to a Professor for success as a lecturer? Is it likely to improve the quality of his teaching to any extent? If any close connection were found to exist between teaching and research, then certainly there is a very strong reason why Professors to acquit themselves well as teachers, should be research-workers too.

It is well-known that the aim of research is the advancement of knowledge or rather the creation of new knowledge, while that of teaching, the imparting of knowledge to juvenile minds. Seeing that their aims are so different, it is no wonder that the qualities—intellectual and moral—required for success in each case should also be somewhat different. It may be observed that, for success in the field of advanced research, the qualities specially needed are intelligence and originality of a high order, a spirit of inquiry and observation, patience and courage under difficulties and disappointments, a sublime devotion to truth and zeal for the cause of knowledge, a certain amount of inventive and mechanical skill, etc. A long and special course of training is further needed. On the other hand, for success as a lecturer what one especially needs is a thorough knowledge of his subject, an insight into juvenile nature, the power to understand and appreciate the difficulties of young minds and to come down

to their level, a fascination of voice, look and manner, a moral fervour and enthusiasm and a capacity to explain, to impress and to stimulate. Above all, what the teacher requires is that he should be a veritable student himself and by acquainting himself with the latest publications in his subject and with the latest results of original research, should ever keep the fountain of his knowledge fresh and full. It must not now be difficult for us to understand that teaching and research are two separate departments, success in each of which calls for special qualities and attainments. How, then, can it be possible for research work to improve, ever so much, one's capacity as a teacher or lecturer?

It is however necessary to observe that if the field covered by research-work coincides wholly or partly, with that covered in teaching, research work cannot be without some value in connection with teaching work. Such a coincidence, however, must, in the daily work of a Professor, rather be the exception than the rule. In the case of many of the subjects taught in Indian Colleges, a great deal of research-work has already been done and very little is possible for Indian Professors to do. In handling these subjects, it must be rather difficult for us to understand how research in other subjects or fractions of other subjects, could be of any material advantage to Professors. For example—how can original research in Indian Ethnology or Ancient Indian History render one any the more efficient as a Professor of European History or English Constitutional History or Political Science? The same must be the case with regard to other subjects too.

From the above considerations, I believe it may not be wrong to conclude that there is nothing like any close connection between

teaching and research, that success as a teacher depends mostly on factors other than research-work and that capacity for this work need not necessarily imply capacity as a lecturer too.

II

The above conclusions will now be illustrated by means of a few concrete instances. In the first place I will mention a few Professors who, while they occupy a unique place as research-workers, are considered to have been rather failures as lecturers. We will first take Clerk-Maxwell, the famous scientist and research-worker. This is what an old student of his (Prof. Fleming) writes about him*:—"Maxwell gave a couple of courses of University Lectures per year which however were shockingly neglected and I remember my surprise at finding a teacher whom I regarded as in the forefront of knowledge lecturing to three or four students as his only audience. In fact during one term Maxwell gave a course of splendid lectures on Electro-Dynamics, the only audience being myself and another gentleman whose name, I think, was Middleton, at that time a Fellow-commoner of St. John's."

Secondly, we will consider Lord Kelvin whose reputation as a scientist and researcher is world-wide. Dwelling on him as a lecturer, Sir James Ramsay observed†—"Thomson was not what would be called a good lecturer he was too discursive. I doubt whether any man, with a brain so much above the ordinary, so much more rapid in action than the average, can be a first-rate lecturer."

One more instance—in the domain of histori-

* History of the Cavendish Laboratory, pp. 33 and 34.

† Ramsay, Essays, Biographical and Chemical, p. 92.

cal research, no name can be greater or more venerable than that of Stubbs. As a lecturer however he does not appear to have been very successful. "On the side of his professorial work as a lecturer, Stubbs was less obviously successful. He read his lectures from manuscript and he did not attract a large class. Every year he was bound to deliver two public lectures, a duty at which he always grumbled. To these lectures more hearers came than to his consecutive courses but he never drew such a crowd as came to listen to his predecessor—Goldwin Smith or to his two successors, Freeman and Froude*."

In the second place, I will mention a few Professors who were extremely popular and successful as Lecturers, although as Research-workers, they do not occupy any high place. The name of Prof. Seeley suggests itself to me, first, in this connection. The research-work actually done by him is almost 'a negligible quantity' but as a lecturer at Cambridge he appears to have exercised a magnetic fascination and potent influence. The following remarks by Prothero are deserving of special attention†:—"What was most remarkable in his teaching of History was its suggestive and stimulating character and the constancy of its scientific aim. The facts that Seeley mentioned in his lectures were, as a rule, well-known; it was the use that he made of them that was new. Historical details were worth nothing to him but as a basis for generalisation; the idea to which they pointed was everything... Taking facts as established, he insisted

on thinking about them and on deducing from them the main lines of historical and political evolution. Such a method of study is not without its risks but it is fertile and attractive; it has a vitalising tendency."

Or let us take Lord Acton, the famous successor of Seeley at Cambridge. If the former is regarded with unique admiration as a Professor of transcendent greatness, it is not because of any substantial contributions he has made to research-work but because of the magnitude of his erudition and the solidity of his thinking. As a lecturer, he is said to have fulfilled his task to perfection. "From the first his lectures were crowded. It may be questioned whether any one who heard even a single sentence could go away quite unimpressed. No one could fail to see how the speaker's mind was possessed with the greatness of human affairs, with the moral or immoral aspects of political and ecclesiastical dexterity....."

From the above considerations, it seems to me that the following conclusions may be deduced:—

(a) Research-work of a very abstract or advanced character may perhaps render a person somewhat unfit for teaching work. Moving habitually in exalted regions of investigation and speculation, he may often find it difficult to realise the difficulties or attainments of students and to come down to their level. Or, he may perhaps have a tendency to look upon teaching work with mild aversion or indifference, as a sort of distraction or drudgery.

(b) Even supposing there is no antagonism at all between teaching and research—as is true in most cases—there does not appear to

* Vide Richard Lodge's article in Chambers' Cyclopaedia of English Literature, last volume, p. 629.

† Introduction to 'Growth of British Policy,' Vol. I.

‡ Introduction to Acton's "Lectures on Modern History."

be much connection between the two. A successful lecturer need not necessarily be a research-worker nor need a research-worker necessarily prove a successful lecturer.

It is no doubt with some diffidence that these conclusions are offered and I am open to correction.

III

Although it has been seen that it may not be much necessary for Professors to do research work simply to improve themselves as Lecturers, it does not however follow from this that they need do no research-work at all. Having regard to the value and importance of research-work of every kind it is the duty of every one who has the capacity and aptitude for it, as well as the necessary facilities, to do some useful work in that direction. It is not possible for one to render a greater or a more lasting service to humanity than by extending, however little, the horizon of knowledge. If therefore Indian Professors and Lecturers should do research-work it is more for the value and importance of such work in manifold ways than for any close or direct bearing it may have on their teaching.

It may not be out of place to observe here that, for the industrial and economic progress of this country, it should be of the utmost importance to carry on a course of systematic research specially in Applied Sciences. Referring to continental countries this is what Robert Kennedy Duncar observes*:—"The Germany of the days prior to the Prussian conquest has passed away and the new Germany is a Germany of workshops; and workshops too, in which in the intelligent application of means, to ends which constitute the scientific method in the eagerness to harness new knowledge

to their service and in a willingness to spend money in intelligent experimentation, there is demonstrated a condition of almost perfect functioning. In France also, though not with the same methods, but in a spirit as eager and intelligent there is the same turning over into sensible scientific conduct of the traditional industries and the same activity in the establishment of new ones. Even in England there is abroad in the land a spirit of applied science." It is this spirit of applied science that must, by all means, be encouraged in this country with a view to her industrial progress.

Apart from the importance of research-work in this country it is well-known that there is almost boundless scope for it here in many fields of knowledge. Subjects such as Indian Ethnology, Indian Archaeology, Indian Economics and Indian Languages which are coming to attract more and more attention in these times offer no small scope for systematic research. In spite of much that has been done in that field not a few tracts of ancient Indian History still remain involved in obscurity and need illumination. There are again many fruitful subjects for original research in the arts, sciences, literature and philosophy of ancient Hindus which have as yet been but imperfectly studied. It is coming to be more and more realised that the culture of ancient India is not without its importance in modern times, that there are many elements of permanent value in that culture and that nothing could be more unwise or unpatriotic on the part of educated Indians than to leave the priceless treasures of their ancient wisdom and knowledge to neglect and oblivion.

Nor are men wanting in this country competent for research. A great deal of original work has already been done by educated

Indians and they have shown their undoubted capacity and fitness for it. The charge of intellectual sterility and incapacity for research often levelled against educated Indians is absolutely without foundation. The monumental labours that have been or are being carried on in dark and unexplored regions of knowledge by such giants as Ranade, Dutt, J. C. Bose, P. C. Roy, C. V. Raman, Bhandarkar, Jadunath Sarkar, Râdhakumud Mukherji, Norendranath Law, Venkayya, Ramanujam—to name but a few—must not only give the lie direct to the malicious charge but must bear ample testimony to the vitality and originating power of the Indian intellect. While some of the brightest luminaries alone have been mentioned above, it must also be remembered that the Indian firmament of research is, in addition, interspersed with a host of lesser lights and that the radiance shed by them too is by no means to be despised. One has only to turn over the pages of some well-known magazines in this country to understand what an amount of research work is being carried on day after day by educated Indian gentlemen.

IV

Having regard to the great importance of research work in this country and the unlimited scope for it, it need not be said that such work should be encouraged and promoted by all means and that the utmost attention should be paid to it by all who have the aptitude and capacity for it and are not wanting in necessary facilities. The question that we have however to consider is, what part the Professors of Indian Colleges may, under present conditions, be rightly expected to play in the promotion of research.

In considering this question, we will start

from Second-grade Colleges. I believe I am not far wrong in saying that, under present conditions, it is more or less futile to expect any work of original research from the lecturers of these colleges. In the first place, not many lecturers can be found in these colleges, endowed with the intelligence and originality essential for the work. Secondly, these lecturers are, at present, so burdened with teaching work that they can hardly be expected to find sufficient time and energy for original research. It need not be said that to attend to research work to the prejudice of one's legitimate teaching work must certainly be far from advisable. Thirdly, it must be noted that the laboratories and libraries of these colleges are at present but poorly equipped even for teaching work and that, consequently, no research work of any serious character is at all possible with their aid. Fourthly, it may be observed that the students of these colleges are as yet too callow for original research and what they require is more teaching in their subjects than training in research. In view of these adverse, nay forbidding, conditions it must certainly be idle to expect any substantial contributions to research work from the lecturers of Second-grade Colleges.

It may however be observed here that although systematic research work may be impossible in the case of these lecturers, at least some original literary work in their respective subjects may be rightly expected at their hands. The amount of literature that now issues from the lecturers of Second-grade Colleges in the shape of magazine articles, pamphlets, text-books and writings of a more serious character is extremely small and a great deal more may reasonably be expected from them. Year after year we see a great many books, mostly text-books, published

* Vide his 'Chemistry of Commerce.'

by the teachers and lecturers of other countries and it should be our ambition 'too to follow their example.

One more point—in connection with their teaching, it should be a clear and consistent aim of theirs, to develop, as much as possible, a spirit of originality and inquiry in the minds of their students and thus slowly prepare them for research-work. The practical work of science students in laboratories may, as far as practicable, be organised and conducted with this aim in view. Instead of being guided by the hand step by step, at least the better students may occasionally be trusted to self-help. In connection with History, English and a few other subjects, the 'Seminar' system of Germany may, to a certain extent, be followed. Eloquent testimony has been borne to the success of the system by Professor Sarkar of Patna College* who has been following it in his own college in connection with History. I do believe that even in Second-grade Colleges, some sort of 'Seminar' work on a small scale is quite practicable for students and would be of immense advantage. Nothing is better calculated than such work to develop a spirit of inquiry and investigation in the minds of students.

V

Turning to First-grade Colleges—it is true that the adverse conditions pointed out in the case of the Second-grade Colleges are not present to such an extent here and that, amongst the Professors of these Colleges, there are not wanting men competent, intellectually and morally, to carry on original research. Even these Professors, however, are in many cases, so heavily burdened with

lecturing work of an advanced character and so much of reading and writing work is necessitated on that account and further, so much of 'correction' work often devolves on them that it is doubtful if any systematic research-work is really within their power. Further, in the case of subjects like Ethnography, Archaeology, Ancient Indian History, etc., which call for constant touring on the part of researchers, the stationary Professors of Indian Colleges cannot but be seriously handicapped. For these reasons, all that can be expected from them must be but occasional and perhaps, fragmentary contributions to research-work rather than any serious or advanced course of such work. Such contributions, however, serving, as they must, as so many humble tributaries to the ever-widening stream of knowledge, are by no means to be despised. If more research-work were to proceed from these Professors, then certainly they will have to be more favourably placed as regards leisure and opportunities.

Leaving research work alone, it cannot certainly be wrong to expect from many of the Professors, European and Indian, of First-grade Colleges, a substantial production, at any rate, of original works of a general character in connection with their respective subjects. If much research work were not possible for them, at least it must be within their power, as a result of higher reading and reflection, to throw out a few general works showing some freshness of treatment and originality of plan. Even text-books, like those published by many European Professors, cannot be unwelcome at their hands. Books like Seeley's "Growth of British Policy," Acton's 'Lectures on the French Revolution,' Goldwin Smith's 'United States,' Eger-ton's 'British Colonial Policy,' Wakeman's

'History of the English Church,' Maitland's 'Lectures on English Constitutional History,' Froude's 'English Seamen,' Bury's 'History of Greece'—to name but a few—although not serious products of research, have certainly a freshness, a charm, an originality, a dynamic power of their own which cannot but give them an abiding place, as classics, in the literature of History. Writings of this character—may be of a somewhat lower standard—are certainly not beyond the capacity of at least some of our Professors.

Further, it should be the aim of the Professors to develop, as much as possible, a spirit of originality and a taste for research on the part of students. With certain necessary changes and adaptations, the 'Seminar' system already referred to, should be followed to a greater extent and on even more developed lines than in the case of second-grade colleges. The 'Seminar' may otherwise be characterised as a 'literary laboratory' and the system is borrowed from the well-known plan of instruction in a physical or chemical laboratory.* The system cannot but give the students a certain amount of elementary training in research-work in historical and literary subjects.

VI

It has already been observed that, having regard to the importance of original research in this country, it should be encouraged and promoted in all possible ways. A brief consideration of the means that may well be adopted for the systematic promotion of research-work in this country can not be out of place in this paper.

* For a brief account of the system, refer to Sir W. Ramsay's "Address on Functions of a University." (Essays—pp. 241-42).

The first suggestion to be offered is that, in the interests of original research, post-graduate courses may well be established in at least a few of our First-grade Colleges. Such post-graduate courses for research-work will be found a common feature of Western Universities and have also been instituted in the Science College at Calcutta. The Professors in charge of these courses should be great research-workers themselves. "It is the personal influence of the man doing original work in his subject which inspires belief in it, awakens enthusiasm, gains disciples." It need not be said that it must be of real advantage to have the services of full-timed Professors for research work and training and to get sets of young men trained by them in such work for a course of years.

Secondly, seeing that the promotion of research is an important function of Universities, a great deal more must be done in this direction by Indian Universities than is being done at present. Till very recently, the Universities of this country were purely examining bodies and even now they have but made a beginning as centres for teaching and research. Having regard to the importance of original research and the fact that the Universities are the true centres for the advancement of knowledge, it need not be said that it should be the noble ideal of our Universities to develop more and more as research centres. More Research Professorships and studentships should be instituted; Research libraries and laboratories should be provided; and in all ways, the torch of learning, of which they are the true custodians should be made to burn brighter and lighter year after year. To render possible this extension of their work, it need not be said that they should be liberally subsidised by Government as well as liberally endowed by private individuals and bodies,

* Vide his article—'Confessions of a History Teacher' (Dec. issue of *Modern Review*).

Thirdly, it has to be observed that it is within the power of the British Government as well as of Native Rajahs and Zemindars and nobles of this country to contribute a large share for the promotion of research. A notable step has already been taken by them in this direction by the appointment of full-timed officers to carry on research in such departments as Indian Ethnography, Archaeology, Epigraphy, Agriculture, etc. A great deal more encouragement to research may however be given by them by the endowment of chairs for research-work, by the institution of research-scholarships tenable in this country or abroad and by the establishment of research institutes or associations. The absence of facilities for research-work is keenly felt everywhere in this country, specially in mofussil stations, and it cannot be difficult for the many Rajahs and nobles of this country to provide these facilities, especially seeing that in the case of subjects like History, Economics, Languages, Ethnography, etc., they can be provided without any great expense. By advancing the cause of knowledge in these and other ways, every one of them will not only be earning for himself a well-deserved niche in the Temple of Fame but will also have the further satisfaction of having done a real and lasting service to his own country—nay to humanity at large.

P. S. RAMAKRISHNA IYER.

THE PRESENT DAY STUDENTS AND PROFESSORS.

(BY ONE WHO HAS KNOWN THEM.)

THE recent troubles in the Presidency College at Calcutta which have culminated in the suspension of its Principal have brought into prominence the question of the relations that at present obtain between the students and professors in the colleges and schools in the different parts of India. The incident in the Calcutta Presidency College is only an aggravated form of what is happening in almost all parts of India, and even mild and serene Madras has not been free from similar unconstitutional methods of redress adopted by students. More than ten years ago there was a commotion in the Madras Christian College owing to the conversion of a Hindu student of the college, but it was suppressed by the tact of the then popular Principal. The next cases were those which occurred on two different occasions in the Victoria Hostel attached to the local Presidency College caused by the alleged rudeness of the then European Wardens respectively. More recently, cases seem to have occurred in the Christian College again, and several times even in the Pachaiyappa's College which is managed by a committee wholly composed of Indians and is staffed almost entirely by Indian Professors, and I am not sure that other parts of India have been quite free. It behoves us therefore to investigate the causes that underlie these incidents and determine whether they are mere passing phases of school life or whether there are any under-currents of which these are merely ripples on the surface.

The Anglo-Indian has no hesitation in saying that the political agitation set up by the Congresswallahs and still more by the Anti-partition League in Bengal have made the Indian students in all parts of India disloyal

to Government and hostile to discipline and authority. But whatever may be the state of things in Bengal, I have no hesitation in saying that it is not and never has been true of Madras, and if Anglo-Indian papers still persist in misrepresenting the feelings of the Indian students in general, they do so from sinister motives and from an anxiety to lay the blame on any but the right shoulders.

European officials, Theosophists and other revivalists think that absence of religious education in the schools has killed the sentiment of reverence in the students and the ancient respect for the *Guru* who was worshipped as only next to God has disappeared, and hence they are inclined to believe that the introduction of religious instruction would once more restore the old relations between the teacher and the taught.

Mr. W. W. Pearson whose letter on the subject of "*The Bengali student, an appeal for magnanimous treatment*" appears both in the "*Hindu*" and in the "*New India*" seems to me to have probed the matter to the bottom and hit upon one at least of the true causes. He says "What is the root of the trouble? I have worked for six years amongst Bengali students and I was myself a student for the same number of years first in Cambridge and then in Oxford, and I can say without hesitation that Bengali students are no more undisciplined by nature than English students. If they become undisciplined, the fault must be with the teachers." He concludes by saying that "The time has surely come for a wise and magnanimous treatment of the whole question of Bengal's students and for a confession of the failure of our educational methods."

I agree with Mr. Pearson in thinking that it is absurd to blame the students for this

state of things. The students are the product of our system, and have been made into what they are wholly by their teachers and the system pursued in our schools and colleges—for which the authorities, *viz.*, the Government and the Universities alone are responsible. I therefore apportion the blame between our educational system and the teachers who have to work that system.

What then is wrong with our system and with the teachers?

In my own school days every one of the classes up to the Matriculation class was taught by a single teacher in all subjects and the teacher therefore knew very well the excellences and defects in the character of each student and could put him in the right path, and if he was a man of good character and high principles himself, could exert a wholesome influence on the whole class. At the present day however, owing to so-called specialization in the University which began some time in the eighties and has been still further emphasized since the new University regulations came into force, all this has been changed. When I was in the Teachers' College, Saidapet, a graduate normal student, if asked to teach arithmetic or geometry even to a third or fourth Form would plead ignorance of the subject, if he was not a mathematics graduate himself, and say that he had completely forgotten his arithmetic or geometry. How much worse should be the graduates of the present day who began to 'specialize' from the very beginning of their High School course! The outcome of this 'specialization' is that each single class is handled by as many teachers as there are subjects to be taught, and each teacher goes to the class only for an hour or 50 minutes in the course

of a day and in some cases in the course of a whole week. In these circumstances one can easily see how little scope there is for a teacher who can come into contact with the boys of a class consisting of fifty to sixty only for a short time in the course of a week and has besides, to go the round of almost all the classes in the school teaching the same subject in all of them, to become fully acquainted with each and every one of them, much less exercise any influence on their life and conduct even if he would, for which a knowledge of the parentage and position in life of the boys, their nature and disposition is quite essential. Add to this the fact that some teachers instead of following the methods they learnt in the training colleges, of questioning each individual boy and making him think and bring out the best that is in him, take it easy and lecture and dictate 'notes' in imitation of the College Professors under whom they themselves studied, or to extort admiration from the poor mystified students and to create an impression in them of their own cleverness and profundity of learning. This is no exaggeration in the case of large towns like Madras, though things may not be quite so bad in the mofussil. There is thus an absence of that intimacy and close mutual intercourse which ought to exist between the teacher and the taught, which is necessary if the former is to help in the building of the character of the students in the earlier years of their life. Then again how few of the teachers themselves have a sense of their high mission as exemplaries of noble conduct to their students; or mix with the students outside the four walls of the school-house and try to get an insight into their individual dispositions so as to be able to correct their behaviour where wrong, encourage them in their virtues!

Thus much about High Schools and their teachers. The state of things in the Madras Colleges is much worse. Here the Professors are mostly Europeans. What Mr. Pearson says of the Bengali student and the European Professors in Bengal Colleges is no less true of Madras. "He" (the Bengali student) says Mr. Pearson "has a strong sense of justice and responds most readily to sympathetic treatment by his teachers. When foreign teachers, many of them little more than students themselves, come out from England and supersede in the educational service, some of the most scholarly and experienced of their own Bengali Professors, this sense of justice naturally receives a shock. And when to add to this insult a clear and obvious breach exists between this foreign element and the Bengali staff, it adds to the sense of bitterness, especially when the enforcement of discipline rather than exercise of sympathy appears to be the ideal of educational authorities."

Other causes of estrangement between the Professors and their students, at least in Madras, are these:—The classes except in some of the subjects taught are too large for the Professor to devote any attention to individual students even if he has a desire to do so, which unfortunately he has not. In European Universities, though the Professors have to lecture to as large, or even larger classes, yet they are not inaccessible to the students. They hold at homes every week or so at which all students are welcome and the Professors speak to them and get to know them. Mr. Bilderbeck, towards the end of his career, and the late lamented Professor Sathianadhan used to invite students to their houses occasionally, but the old generation of Professors of the type of Powell, Miller, Thompson, &c., who really sympathised with

their students and tried to understand them, has alas! passed away. Their successors are *gosha* and the student who wants to approach them has first to propitiate the peon at the door, and even when he is allowed to enter, the interview is only a business interview and nothing more. The Professor has no sympathy for the student and is ignorant of, or has a contempt for his thoughts and aspirations. He has an exaggerated sense of his own learning and importance and does not associate on friendly terms even with his Indian colleagues. Indeed, why should he care for his students when his pay and promotion, personal allowance and University remuneration are assured and not dependent upon the opinion of the student population or of the general public? A firm belief prevails both among the students and the general Hindu public that the present day foreign Professors want to restrict higher education and put as many obstacles as possible in the path of the students struggling to pass the University examinations. The opposition which they offer in the Senate to every proposition brought forward by the Indians, which in however slight a degree tends to smooth the path of the poor students in their University course is adduced as sufficient evidence of their attitude. The way by which they have whittled down the proposition carried in the Senate sometime ago in the teeth of the opposition of the College Professors, to allow Intermediate candidates to appear only in those subjects in which they failed in previous years, and their voting as a body against the propositions recently brought forward by Mr. Ramalinga Reddi to enable failed Intermediate candidates to sit for the examination again without having to produce certificates of further attendance at

colleges are regarded as some of the instances in point. It is a well-known fact that the presence of a large number of 'failed' students in a class is one of the causes of undiscipline in colleges. Such students think that it is not necessary for them to attend to lectures in subjects in which they have passed, and even in subjects in which they have failed, they have only to go over the same ground which they have traversed already except English texts; and consequently they constitute a disturbing factor in their classes and a main-spring of corruption to the other students of the class. Still the European Professors of the Colleges do not like to loosen their grip on the necks of those students, but wish to have them return again and again to their classes or go altogether without the stamp of the University.

A teacher or professor to be able to command respect must himself be a man of profound learning, enthusiastic in his work, high-minded and of unimpeachable character, and to secure the love of the student he must also understand the student and sympathise with him in his difficulties and aspirations. Where these requisites are absent no amount of moral and religious instruction will be of any avail. The ancient *Guru* lived, moved and had his being with his *Chelas* and was revered for his learning and spotless character, in addition to his being also a spiritual teacher. The present day professors, it would seem (with honorable exceptions of course) are more feared than respected and loved, because they are also the University examiners, and constitute the Syndicate or have influence in it and can make or mar the future of the students so far as their University career is concerned. In English Univer-

sities none but men who have created a name by their depth of learning and original research, and who are enthusiasts over their subjects are chosen as Professors. But the Professors selected for the Indian Educational Service! On what principle or by what process they are selected, is a mystery still. Many of them have to study their subjects after they come to India! It is only the interested men themselves, who say that the salaries offered are not attractive enough to any but inferior men. If it is a fact that it is impossible to recruit satisfactorily for the service under the existing conditions of pay, promotion and pension, how is it that missionary bodies and private colleges can get equally good, if not better men on much smaller initial salaries and without the brilliant prospects that are held out to men in Government service? In not a few cases has Government itself taken into its own service the men so brought out by private bodies and they have not proved less efficient than those recruited directly in England by the Secretary of State. The only difference we find between the two is that the former are not so uppish at first as some of the latter are. Again if it is really so difficult to get good men now-a-days, as it is made out to be, why should not Government send some of the best Indian graduates for training in English Universities for three or four years to take the places now occupied exclusively by European Professors? These will in no way be inferior to their European compeers while their national aspirations being identical with those of the boys, they can understand their feelings better, and move with them as one of themselves.

When the hostel system was first introduced into Indian Colleges high hopes were entertained that it would be of great help in the

maintenance of discipline and in bringing about a *rapprochement* between the teachers and the students on the one hand and an *esprit de corps* among the students themselves. But this object has not been gained on account of caste distinctions among the students themselves on the one hand and the overbearance of the wardens who would play the role of the governor rather than of companion and friendly advisor to the students. This should make us doubt whether the residential Universities on which the Government has set its hopes will be a success as long as the present state of things remains unchanged.

All this leads us to the conclusion that unless our system is modified and unless teachers and Professors become more sympathetic and realize that they exist for the boys and not the boys for them, the influence of the old traditional reverence for the *Guru* which still lingers in some unsophisticated bosoms is bound to disappear with the advance of years, and the estrangement between the teachers and the taught is bound to increase.

It is understood that a Special Convocation of the Bombay University will be held on the 1st April to confer the Honorary Degree of LL.D. on Lord Hardinge.

The Bombay University has elected Mr. R. P. Paranjpye, Principal, Fergusson College, Poona, as its representative on the Bombay Legislative Council. Mr. Paranjpye at present is a member in Council, having been nominated by the Government, while Mr. Samarth who now represents the University has been unseated by the present election.

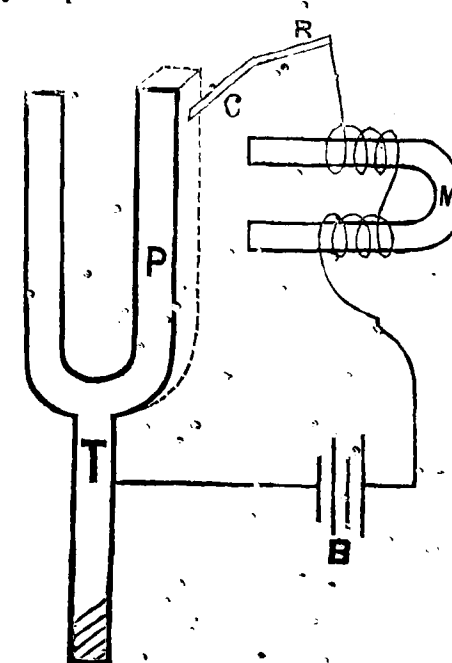
EASY LABORATORY DEMONSTRATIONS OF GREAT ELECTRICAL APPLICATIONS.

THE ELECTRICALLY-DRIVEN TUNING FORK.

IN the January issue of the 'Educational Review' I wrote an article under the above title wherein I discussed about an easy method of demonstrating two important applications of electricity, namely, the Electric Telegraph and the Electro-motor. I now propose to continue my article by considering an easy method of constructing an electrically-driven tuning fork. In many exercises on acoustics, a continuously vibrating tuning fork is necessary as in Melde's Experiment. It may be urged, as some text-book writers do, that a tuning fork may be continuously vibrated by means of a violin bow and often, in the absence of an electrically-driven tuning fork, this method of producing continuous vibration is adopted. But it suffers from the disadvantage that the amplitude of the vibrations of the fork often varies. Besides it requires great care and some skill in the experimenter, who has to engage himself in looking after that work. It is however not difficult to devise an arrangement by means of which the vibrations of a tuning fork can be electrically maintained.

A tuning fork T is fixed vertically in position. A horse-shoe electro-magnet M is placed in a vertical plane by the side of one of the prongs P of the fork. One end of the coils of the electro-magnet is connected to a battery B and the other end is connected to a brass rod R. To the free end of the brass rod is attached a thin flexible copper or other metallic strip, the end of which touches the prong P of the fork. The base of the tuning fork is connected to the other free pole of the battery. Thus the battery circuit is completed. The

tuning fork will then start of itself, but if it does not, the free prong may be gently tapped and the pressure of the copper strip on the prong may be slightly adjusted. A position can be easily found wherein the tuning fork vibrates without producing any jarring note. As the copper strip is very flexible it does not affect the frequency of the fork. In my experiments, I have not been able to observe any appreciable variation in the frequency of the fork. This arrangement, I find to be easy of adjustment and useful and with it all experiments involving the use of a tuning fork may be performed.



MECHANICAL EQUIVALENT OF HEAT.

In the apparatus usually supplied for experiments on the determination of the mechanical equivalent of heat, there are two types of counters used. In one type the total number of revolutions (hundreds and fractions of a hundred) is given directly, but in a less costly type such as is supplied by Becker we have simply an arrangement to give read-

ings to the fraction of a hundred. As the number of turns of the spindle to produce a rise of 4 or 5 degrees C. in an experiment exceeds a hundred, the experimenter himself has to make arrangements for noting the complete hundreds. This exercise requires at least two experimenters, and hence every appliance, which would reduce the work of the observer without increasing the cost of apparatus, will be helpful.

To the toothed-wheel which gives fractions of a hundred revolutions only, we can solder near the circumference of the wheel, a metallic pointer such as a gramophone needle at right angles to the plane of the wheel, which during a complete revolution would press once on a brass spring. If the brass spring and the mechanical equivalent apparatus are connected to the poles of a battery through an electric bell, then whenever the needle presses on the brass spring the electric bell will sound. Hence for every hundred revolutions of the spindle the bell would sound once. Thus by noting the number of soundings during the experiment we can ascertain the number of complete hundred turns made by the spindle of the apparatus. Fractions of a hundred will of course be given by the toothed-wheel. For the brass spring, a contact key with the ebonite pressing knob removed, may be used. I have seen similar arrangements used in connection with other apparatus and I find that this arrangement to be useful here also.

In my next article, I intend taking up the electrically-maintained pendulum. I shall be glad to answer any queries I may be asked to elucidate the obscure points in the subject-matter of these articles. A few science masters questioned me on certain points in my last article and I have answered them. I would certainly feel happy to answer any others to whom also similar doubts may arise for want of clearness of exposition in the articles.

V. N. VISWANATHAN.

THE HEAT OF THE SUN.

THE sun is known to be the life-giver for the whole world. We know that but for the light and heat which the earth is receiving from the sun, life in this world would be an impossibility. It has also been recently found out that sunlight is about the best disinfectant we have. Allow plenty of sunlight into your house, and you will find it a joy for ever to live there. Bugs, flies, mosquitoes, cockroaches, and other disease-carrying animals always avoid sunlight, and hence have not got the power to carry disease to a house which is well supplied with sunlight. The first advice a medical man gives to his patient is to have the bed-clothes well washed and dried in sunlight.

The fire we use in our household is but a miniature reproduction of the sun's heat. We obtain fire by the burning of wood. But what is wood? The chemist says that wood is a compound containing carbon, hydrogen, and some mineral matter. When the carbon and the hydrogen combine with the oxygen of the air, heat is produced, and this heat we obtain in the shape of fire. When the carbon combines with the oxygen, carbon dioxide is formed and heat is produced during the process. But we shall consider how the wood has obtained its carbon. The chemist again comes to our help. He says that the leaves of the tree have the power of decomposing the carbon dioxide of the air, and separating it into oxygen and carbon. The carbon is taken up by the tree to form thereafter a part and parcel of its body, and the oxygen is returned to the atmosphere. One condition under which the carbon dioxide can be decomposed into its constituents is the presence of sunlight. It is well-known that plants can grow very vigorously in hot moist places;

the greatest forests of this world are to be found in the interior of Africa, while in the cold regions where there is a good deal of water but no sun's heat, the trees are all stunted in growth.

Heat then is absorbed by the trees when they decompose carbon dioxide, and take up the carbon to prepare wood. This heat is given off when the wood is burnt, thus making the carbon combine again with the oxygen to form carbon dioxide. Thus we see that fire in our household is only a reproduction of the sun's heat which has been absorbed by the tree during its growth of some decades of years. Thus we see that wood is a storehouse of carbon, hydrogen, heat and light.

In the case of the electric light also, the light and heat are only reproductions of the sun's heat. The electric energy required for keeping the lamp lighted is obtained from the dynamo, but the dynamo is run by steam engine, and the engine derives its power from the coal, which after all is only fossilised wood, containing, as we have already seen, a storehouse of the sun's heat. In the case in which the dynamo is driven by a waterfall, we can yet trace the source of heat to the sun, for the river owes its existence to the rainfall upon the mountains, and the rainfall is directly traceable to the evaporation of the sea water by the sun's heat and the carrying of the water vapour by the wind to the mountains.

Our food stuffs can also be considered to be a storehouse for the sun's heat. It is the function of our food to be converted into blood, which is utilised in maintaining our heat. This heat is produced by the oxidation of the various tissues in our body. The food is obtained directly or indirectly from the vegetables, which, as explained before,

is a storehouse of the sun's heat. The only difference between the heat produced in our body, and in burning wood is that in our case the heat produced is very mild, while in the other case it is very strong.

Supply of Heat.—The amount of heat which is being spent by the sun is prodigious. Geology speaks of millions of years as a very trifling period in the age of the earth. The earth has undergone vast changes during its growth. We hear of a period when the north of Europe and Asia, together with the place now occupied by the greater portion of the Arctic Ocean comprised one vast continent known as the Angara land which is believed to have been very fertile. The Mediterranean Sea in those days occupied the whole of Central Asia up to Chinese Turkestan in the east, Northern Africa including the Sahara in the south, and the whole of Europe except Scandinavia in the north; up to nearly the present Gulf of Mexico in the west. This vast sea has now been reduced to its present very insignificant size, compared with its original area. Even now the level of land or sea is being changed, but it is not more than a few feet in the course of a century. We can thus form an idea as to the enormous length of time through which the earth has been in existence. The sun, on whom the mere existence of the earth depends, must have been much older. Through all these geological ages the supply of the sun's heat has been constant. There is no reason to suppose that the supply of heat from the sun has ever been less than what it is now.

We can form an idea as to the amount of heat the sun is spending from what the earth is receiving. The earth is at a distance of about 92 millions of miles from the sun. Suppose we form a sphere having this 92 mil-

lions of miles as the radius. The area of the surface of such a sphere would be $4 \times \pi^2 \times 92$ million². If the sun's heat be distributed uniformly over this vast area, the amount of heat received by our earth would be that on an area having the cross-section of our earth. The area of the cross-section of our earth is $\frac{1}{2} \times 4000^2$ square miles. On calculation it will be found that the full amount of heat coming out of our sun is about 2100 million times that received by our earth every second of its life.

An idea as to the strength of the sun's heat can be obtained when it is stated that the heat which is evolved from one square foot of the sun can maintain a full-size Atlantic steamer of 20,000 tons running at its full speed every minute of its life.

Sources of Heat.—Whence then does the sun get its enormous supply of heat? Various possible sources have been suggested, and we shall here mention a few of them. It is believed by some scientists that the sun is a glowing mass and has naturally got the power of emitting heat and light, like the glow-worm. But later science has shown that this theory cannot possibly be correct. Because if we assume the sun to be a glowing mass like a bit of hot charcoal, we naturally presuppose that there must have been some agency which had already brought the sun to such a high temperature, and the sun must therefore be gradually becoming less and less hot as the course of time advances. But there is no evidence to show that the sun has at any time been hotter than it now is. Naturally this theory of the glowing mass has been now discarded by most scientists as untenable.

Chemical action has been, by many, believed to be the cause of the sun's heat. This theory

is open to the objection that unless there is some very effective check upon the action, chemical action is not likely to be uniform. The action may be slow at first, but, as time advances, the region where the action continues will increase and so the intensity of action must also increase. This means that the sun must be getting hotter as time advances and there must be a sudden stoppage of heat at the end of the action. It has been estimated that if the sun is made up of only hydrogen and oxygen in the right proportion required to form water, the amount of heat which would be produced during the combination would be enough to supply the present rate of sun's heat for about three thousand years. Even though chemical action may possibly be a source of the sun's heat, it cannot supply the full amount of heat which is given out by the sun. Possibly there may be some new element in the sun which has the power of emitting a large amount of heat with a very small action. If so, the fact can only be scrutinised by scientists with the aid of the spectroscope, and any further research in this direction is worth the trouble.

The fall of meteors upon the sun has also been ascribed as a possible cause of the sun's heat. It is known that there are a large number of meteors falling upon the sun, and the force of the impact, if converted into heat, will produce a good quantity. But if meteors are in such quantity as to be able to supply the full amount of sun's heat for millions of years, they must necessarily have some attractive force upon the movements of the near planets Mercury and Venus, and these planets are bound to be led astray by them. But no such freaks are to be found in these planets. They are obeying the regular law of gravitation.

It has been calculated that if our moon were to take an onward journey to the sun, and fall upon him with the force which has been generated by the attractive power of the sun, the amount of heat which would be obtained by the conversion of this force into heat energy would provide the sun with one year's supply at his present rate of expenditure. The sun has been spending heat for millions of years, and surely it cannot find a new moon to be consumed every year.

A fourth reason has been assigned as the possible source of the sun's heat, and this is the one which has found most favour with scientists. The sun is known to be a gaseous body at a very high temperature. If such a body is radiating heat into space it must necessarily undergo a certain contraction in volume. As a result of this contraction, the amount of heat still left in the body will have to be distributed within a smaller space. That means that as a result of the radiation there will be actually an increase of temperature. This is just like the case of a man who has a very big establishment, but finding his expenses very heavy, is bent upon a good retrenchment of expenses in every possible direction. The result of such a retrenchment regularly conducted for some years will be that the man will be richer at the end of the period. In the same manner the radiation of heat from the body of the sun results in a contraction of its volume; the contraction of its volume results in an increase of temperature. If the temperature increases, the rate of loss of heat through radiation increases; but the contraction in volume is still greater and thus the rate of emission of heat is constant.

But this cycle of processes cannot go on indefinitely for ever. A gaseous body which

is gradually contracting in volume must sooner or later become a liquid. The above-described process can go on only if the body remains a gas, and will stop as soon as it becomes a liquid. It is now estimated that the rate of decrease in the volume of our sun is about $\frac{1}{10,000}$ in two thousand years. Astronomers therefore estimate that our sun must become dead in about twenty million years more. By that time the process of liquifaction would have commenced in good earnest and the sun must become a hot molten globe as Jupiter is now believed to be. Some millions of years later, the sun would contain solid, liquid and gaseous bodies, just like our earth in the present times. By that time no light would be evolved from the sun and it would not be seen by persons looking from other orbs. Unless such a body is illuminated from outside, it cannot be seen; that means that it would have lost its sunlike stage and would attain an earthlike stage. Further on it would become a wholly solid mass, and its presence would not be seen, but would be felt on account of its attractive force upon other bodies moving through space.

R. P. SRINIVASA AYYER.

Dr. Sundar Lal has been elected unopposed as the University Member of Council, and returns to it for the sixth time as the University's unanimously chosen representative. There is only one precedent in India for such a unique position, and it was the unanimous election, term after term, of the late Sir Pherozeshah Mehta by the Bombay Corporation to that provincial legislature. Any man may well be proud of such distinction.

THE SCOPE OF HISTORY.

PART II.

MONARCHY, although it required treatment at some length as a most ancient and serviceable instrument of government, still it is but one of the institutions which are classed as constitutional. In the history of a people four broad aspects are generally recognised: Political, Social, Economic and Constitutional. Whatever may be theoretically urged against this division, it is surely a most convenient and very reasonable one.

It is very true to say that the many-sided development of a nation, which is the subject of general history, is one and inseparable, that the circumstances leading to the development should not be artificially arranged as a set of kindred facts under certain classifications. Mr. Tanner in his essay on "The Teaching of Constitutional History" says:

"To those who hold that history is one and indivisible, to speak of constitutional, history is an offence. If Freeman said that there was no such thing as ancient history, his successors protest against ecclesiastic, constitutional, economic, or military history. The extremists go so far as to refuse us national history, and would make the true standpoint of the historian international.

"But what is philosophically desirable is not always practically possible, and though the historian can sometimes afford to be a philosopher, the teacher of history must be a man of business. Experience shows that as a matter of business sub-division is essential. 'Above all things' says Bacon, 'order and distribution, singling out of part is the life, of dispatch: so as the distribution be not too subtle; for he that doth not divide will never enter well into business and he that divideth too much will never come out of it clearly.'"

The subject matter of history as a whole, has been very aptly compared by Mr. Townsend Wagner to a huge mountain which is viewed and described by each historian from his own standpoint. The political, social, economic and constitutional historians take their positions at different corners, and different sets of facts catch each one's eye.

Not only can these primary divisions of history into its aspects be justified on the ground of the facility and convenience which they afford, but they can also be based on analogy. Let us take the individual man. His chief developments are physical, intellectual, and moral. Although the man's growth in these directions is simultaneous and indivisible, yet we can best comprehend a biography of him only when it is set forth in certain order and under certain divisions. Similarly, a people being composed of individuals, an account of its collective development may be set forth to best advantage under some well-conceived and convenient divisions.

The division of history, again, into its four phases, seems really to go back to the division of the individual's faculties into its three phases: 'political' history may be referred back to the physical powers of the man; economic and constitutional histories to his intellectual powers, and social history to his moral stamina. When the individual exercises his physical powers, the resultant deeds from the subject-matter of his political history, as it were. The contents of a nation's political history seem but the result of the exercise of its collective material force. Economic and constitutional histories may be correlated to the intellectual part of the man. When he exerts his intelligence as to how he can best govern his household or how best to provide for the needs of his family, he is essentially economic

When he moves in society he is actively contributing, however little, to its history; and that which orders and regulates his behaviour in public is his innate moral force with which all civilised humanity is endowed. The physical, intellectual and moral forces in the individual man seem therefore to be at the root of the fourfold aspect of the collective man; and the history of peoples seems to be the history of the threefold development of the individual writ large.

As political history is peculiar to each nation with little in common, it is impossible to attempt within the compass of a small article, a short sketch of the world with a view to indicate its scope. As regards constitutional history, however, although it is closely intertwined with the former and although the forces that had ushered in such changes in government varied according to countries, yet there is a similarity in the character of institutions however distant the peoples were situated, and however wide the gulf of time separated them. Monarchy is one such institution; it has existed among all tribes and nations and in all times, with but little variation in character.

Many states of the world, have some sort of constitution at present, but few have a lengthy history to look back upon. In most kingdoms of the Orient including India, all power having been centred in a monarch, his arbitrary will was the best constitution they had for many centuries. The accuracy of anything that we learn concerning ancient Hindu polity is extremely doubtful and have not always been practised in large states but in more or less petty ones. The foreign oligarchy of the Muhammadan and Mogul kings left no room for any institution in which the *vox populi* could be heard. Any concession

allowed sprang from the sweet will of the monarch as charity. The thought never seems to have entered into the minds of the people throughout these long ages as to how they can be best governed. Governance was the sphere of kings and princes and it was sacrilege to meddle with their affairs.

Economic history was denied its existence a little more than a century ago. Even the science of political economy being of late origin, was in great troubles to get itself recognised at large as respectable and worthy to be placed in the ranks of the foremost sciences. No wonder then that objection was raised against a purely economic history on the ground that no such set of facts existed as to make up a recondite science. Though it was sometimes admitted that certain facts were essentially economic, yet they found treatment in journals more as pastime than as systematic knowledge. "By the publication of the *WEALTH OF NATIONS* Adam Smith convinced the English public that political economy had a right to independent place in the circle of sciences; in a similar way it was through the work of James Edward Thorold Rogers that economic history came to be recognised in England as a separate branch of investigation."*

On the continent the Germans had begun to recognise the importance of this branch of study as a distinct science sometime before it was seriously taken up in Britain. But its late birth, the difficulty of culling materials for it from the general history of a nation, the slow pace at which the economic world moved, and the almost imperceptible way in which economic changes affected men, were all hindrances to its advancement.

* Cunningham: *The Teaching of Economic History*, (Essay).

The subject-matter of economic history being all that concerns the production, distribution, and exchange of wealth, it comprises the history of agricultural and manufacturing industries, trade and commerce, banking and modern credit system, and in short, all that concerns the material welfare of the world.

Man is at once a gregarious animal and one that has certain wants to supply, however limited they may have been at the beginning. Hence the history of society is very nearly related to economic history—so close is the relation that a hybrid science sociology has sprung up which claims dominion over both.

It is easy to get at the primitive man in his social and economic surroundings. He, the descendent of the "hairy quadruped," would have had little difficulty in providing for his one primary want, food. Next come other requirements but they are all only secondary to ornaments, such was the fondness of man for them. His first occupation was hunting. But livelihood by hunting would be impossible without the necessary implements; and we know that the earliest weapons were made of stone. Archaeology calls this period the Stone Age and subdivides it into the Old or Paleolithic,—and New or Neolithic Ages, according as the tools were rude or well-polished.

The man as the bread-winner of the household would go out hunting and the "bagged" game would provide both for food and clothing.

His wives attended to the cooking of the flesh. We should of course abandon all modern ideas about marriage when we speak of wife in connexion with this age and many ages to come. Marriage was not a social contract as at present it is; and it had none of the sanctity to which religions have enthroned it

in later times. The problem of earning bread having been easier of solution then than now, plurality of wives was a comfort, luxury, and honour for the man who could afford it. He got the wife by capture within the tribe, probably at the connivance of the bride's father, or from among the prisoners of an enemy tribe whom his own hand had overcome. He had also the option of purchase, the price being calculated in cattle. It was when the question of succession and legitimacy of heirs loomed large, that the importance of marriage as a contract was beginning to be recognised.

Hunting as the vocation of the tribe had to be given up because it required a large area of forest to support each man, and the jungles were gradually being cleared for homesteads by the increasing population. Large herds of domesticated animals were reared instead, but as these multiplied, new pasture grounds had to be found. Hence came the pasturing nomads into existence. A chief cause for the "wanderings of the nations" from Central Asia into the fertile plains of Southern Asia and Europe, was the promise of abundant pasture. Bronze and other metals had superseded stone in the making of household utensils and tools of war; and growth of population necessitated the abandonment of extensive cattle rearing. Agriculture therefore became the mainstay of the majority. It has been until a century back, the main occupation of even the most advanced countries which have since abandoned it for the more lucrative manufacture. One recent development in agriculture, best illustrated in China, is what is called "intensive farming" which is an attempt to extract the fullest amount of produce from the soil by careful cultivation.

If primitive man had too much of a com-

modity he gave away to his neighbours what was superfluous. When agriculture began to produce more than what could be consumed by the members of a tribe, exchange was effected with another tribe; and here we have the beginnings of trade. Although trade was at first inter-tribal its sphere was soon extended in civilised times to many boroughs where merchant gilds quickly sprang up. From these town corporations it spread all over the land and became a national concern. Colonial and international trade are its latest expansions.

The needs of men even in very early times were so manifold and constantly increasing that exchange in order to satisfy them became gradually a necessity. Thus a class of merchants and later, middlemen, grew up going forth to distant lands with their wares. The ancient Phœnicians, Greeks, and Romans sailed all the then known seas for the sake of commerce. The Romans and Arabs are known to have had commercial dealings with India during the spring-time of the Pandyan Empire. The modern caravanseries crossing and recrossing the deserts and wilds of Arabia, Persia and North Africa are the remnants whose striking example reminds us of the zeal with which commerce had been carried on.

It is well to note that commerce since its birth must have been carried with fairly distant lands. "The members of the same family or clan are entirely too much alike in wants and habits to permit any diversification of desires or products; the division of labour among them is too slightly developed to give rise to regular exchange relations.... Diversity of products and customs resulted from diversity of natural environment. Commerce, therefore, was international before it became local. It was maritime before it became overland."*

* Gide: *Political Economy*.

Even when agriculture was the main occupation we should not lose sight of the fact that discovery, invention, and manufactures were going on side by side in a small way. The most primitive man too invented the tools with which he worked; he discovered the use of certain vegetables as food; he manufactured his dress out of animal skin, and feathers of birds provided the ornament. The Phœnicians, the ancient Egyptians, Persians, Greeks, Romans and Indians were in possession, thousands of years before, of systematic knowledge in various sciences—the results of past experience and research—which they applied to their arts. Necessity being the mother of invention and man being a creature of increasing necessities, it is no wonder that he discovered and invented many things at the very outset of civilisation. Let us not neglect them because they are too insignificant to be comparable to modern discoveries and inventions, for the instinct is the same. The discoverer of fire is in some respects as great as Columbus and the inventor of the sitting-stool as great as Edison.

The commercial discoveries inaugurated by Vasco de Gama and his less famous predecessors mark the passing of commerce from its thalassic stage, in which it mainly existed before, to oceanic stage. The invention of the steamship furthered this development. Commerce has been further revolutionised by modern devices to facilitate its transactions, such as bills of exchange, cheques and other instruments of credit. Commercial honesty which is steadily developing to a high pitch and international law which takes cognisance of all disputes between nations have contributed no little to its advancement.

Manufacture has undergone a vast change

in methods. It was, as the word suggests, going on for a long time with the hands or with machinery propelled by hand. The application of steam power to industry, begun about the middle of the Eighteenth Century, created a revolution in the mode of manufacture. It led also to the passing of industry from domestic to factory stage.

D. S. GORDON.

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THE RECENT MODIFIED RULES FOR ADMISSION INTO COLLEGES OF S. S. L. C. HOLDERS.

THE recent circular of the Madras University to Principals of Colleges, No. 1309, dated 17th February 1916, modifying the rules for admission into Colleges of S.S.L.C. holders is both timely and beneficent. But its beneficence is not absolute, but only comparative. The notable feature in it is its definiteness, relieving many anxious parents and teachers from their mental-strain, not to speak of the relief afforded to students from their harrowing anxiety. The cloud has now passed away; but still the storm is threatening and growing wild. "The poor innocents" have been taken away from the hands of many slaughterers and handed over to a few. But the weapon has not been laid yet. In the recent modified rules, there still remains one old cruel weapon, and to this a new one has been added. The minimum number of marks required in each subject is the Presidency average, whatever that may be, whether 19, as it was in Chemistry in one year, or 52 as it was in Optional Mathematics in another year. It is almost incredible to think that a student who got 20 marks when the average is 19 is far superior to another who got 51 when the average is 52. It is really a magic and one of the seven wonders of the world. This glaring discrepancy is still allowed to continue. Another and quite recent blow is that failing students should again appear in all the subjects of A and in two subjects of C, as if they are appearing for the first time. This is again the revival of the old Matriculation, without the advantage of a fixed percentage in each subject. Even one of these two weapons would be quite effective in slaughtering the poor innocents.

Nothing need be said when both the weapons are employed for the purpose. So if the University really wants to save the poor innocents, then, it should at once open its eyes to the above defects, and remove them as early as possible. At least one of the weapons should be removed, if not both. Either should the students be allowed to appear in supplementary examinations, in those subjects only, in which they are weak, or a clause should be added to the new rules, namely, a student should get either individual marks or moderated marks, not less than the Presidency average, provided that the Presidency average does not exceed 40 p. c. If it is above 40, 40 itself may be taken as the minimum in those cases. So much about the modification of admission rules.

One more suggestion I have to offer, and that is with regard to the S.S.L.C. Curriculum itself. The suggestion is the abolition of the B group subjects except Drawing and Gymnastics, in the Sixth Form, the transference of Indian History to C group, attaching it to the History of England, just as Physics or Chemistry is attached to Mathematics, and

the removal of the Vernacular from group C to group A. My reasons for the above changes are that, however enthusiastic the teacher may be, it is an open secret to the student population that they can safely neglect the B group subjects without detriment to their interests either for admission to colleges or for entering some public appointment. So it is simply perpetuating a mere farce. But it is not so in V and other lower Forms; for there, promotion to a higher class depends upon passing in all the subjects, whether of A, B, or C. Again, as Vernacular is most important for every one, it should be brought under the compulsory group. Thirdly it is absurd to specialise in the history of a foreign country without specialising in the history of one's own country. As for every body reading the history of his own country, that is done from I Form to V Form. I think that is quite sufficient.

So I earnestly hope that the above suggestions would appeal to the better judgments of persons in authority, and find acceptance in their hands as early as possible.

K. VIRARAGHAYA IYENGAR.

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TWELFTH NIGHT

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BY

MICHAEL MACMILLAN, M.A., D.LITT., I.E.S. (Retired)

English Lecturer in the University of Birmingham

(Formerly Principal and Professor of English, Elphinstone College, Bombay).

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A PLEA FOR THE INTRODUCTION OF GARDENING IN PUBLIC SCHOOLS.

IN a sound system of juvenile education, 'gardening' should hold an important place, and should form a part of the school curriculum. The details concerning the garden work in schools—the choice of a suitable site, allocation of it into plots, for boys, the process of watering, etc., will outstep the limit of this article. The purpose of this paper is only to show, in particular, the effect of gardening upon the child, the school, and society at large, and to enquire whether that effect is of such value as to demand the special attention of the educational authorities with a view to the providing of suitable gardens for every school, as well as to the affording of opportunities for the cultivation of the same by the children as part of their school work.

In dealing with the effect of gardening upon the children, we must keep in view their three-fold nature. We must remember that, although, the physical, the intellectual, and the moral sides exist throughout, one side is more predominant than the other at a given time in the development of the human being. In the earliest years, the *physical* nature is more to the fore. Gardening is an outdoor occupation. The child is, therefore, continually in the fresh air, and one has only to watch him when engaged in the work to see how to his best advantage he enjoys it. His whole heart and soul are involuntarily thrown into it, and no task seems too much for him, so does "the labour we *delight* in physic pain."

The child's labour in the garden involves a variety of movements, and affords a natural outlet for much of that spontaneous energy which, if left unprovided for, leads to rough play and unruly practices, and, later even

to *hooliganism* itself. Again, the child is unconsciously impressed by the sight of the pretty flowers, the graceful insects, and other wonderful little creatures which share the life of the garden; by the fragrance of the flowers and the smell of the ground after a shower of rain, and by the beauty of the heavens. He listens to songs of birds; to the sound of the wind, now soft, now shrill or loud. He tastes the fruits of some of his labours. And so, by means of his eyes, his nose, his ears, his mouth, and his hands, he receives an all-round training in a natural way, without any effort, and a host of delightful experiences are gathered the while, as a basis for further development. It is mind acting through ultimates and creating the next step above. The same process goes on through life. Development may, therefore, be defined as "the action of the highest in and through the lowest for the production, in successive order, of all degrees above that lowest or ultimate."

Loving contact with, and care for, some of the wonderful things of nature around him awakens in the child a strong feeling for the *wonderful* and the *beautiful*. This feeling reacts upon the child, and refines him. No child who has ever tended and watched the tiny seeds which he has put into the earth develop and put forth leaves, flowers, fruit, and seed will ever afterwards ruthlessly tear any flowers to pieces. Similarly, no child who has ever followed the wonderful life history of some of the lowly creatures which he meets with in the garden will ever trample purposely upon a worm or a snail, still less will he have any pleasure in catching butterflies and sticking them on pieces of cork, merely to make a collection. He will rather protect the lives of such marvellous creatures. From a love and care for the things of *Nature* the child rises to

a deeper love and respect for his comrades and others, and through that again to a recognition of the all-wise loving Father, the Giver of all good things. From the Visible to the Invisible is the only way. Respect for plants and animals awakens respect for their environments, and this ultimately leads to respect for the neighbour's property.

The sights and sounds which afford the child gardener so much physical enjoyment, and appeal so tenderly to his heart, awaken a desire to know something more about the inhabitants of his garden, and also the phenomena which affect them. The *intellectual* sides of the child's nature now claims its due, and for the cultivation of the power of observation there is no better field than the school garden, where the minutest fact observed leads to the desire on the part of the observer, to know the "why," "wherefore," and "how," of things. He will already have tried to express what he has observed with pencil or chalk and paper, or some other material. Now the time comes when the child will be ready and eager to master the art of reading in order to learn more and more of Nature's secrets.

Long years of communion with Nature will make the child a Wordsworth or a Richard Jeffries and will enable him to proclaim with redoubled vigour the truth of the beautiful lines of Wordsworth:—

Nature never did betray
The heart that loved her; 'tis her privilege,
Through all the years of this our life, to lead
From joy to joy: for she can so inform
The mind that is within us, so impress
With quietness and beauty, and so feed
With lofty thoughts, that neither evil tongues,
Rash judgments, nor the sneers of selfish men,
Nor greetings where no kindness is, nor all
The dreary intercourse of daily life,
Shall e'er prevail against us, or disturb
Our cheerful faith, that all which we behold
Is full of blessings.

His spirits will be raised, his whole being will be inspired and elevated. His love of nature will never make him dull, but on the other hand it will soothe and console him. He may have troubles and temptations, but at least 'he will run no risk of being beguiled by ennui, idleness or want of occupation to buy the merry madness of an hour, with the long penitence of after time'. His love of Nature again, helps greatly to keep himself free from the mean and petty cares which interfere so much with calm and peace of mind. It turns 'every ordinary walk into a morning or evening sacrifice and brightens life until it becomes almost like a fairy tale.'

Each hour thus spent in work in the garden means the opening of a fresh door for the child in the realms of science, art, and literature. Nature is still the great poet. We have made a dreary workshop of life; let us now make a beautiful palace of it once more.

The child is only a unit of the school, and the school is but a part of the community. If each individual of the former is being more or less developed by gardening and communion with the things of nature, the school as a whole, and the community as a whole, must also each be better and the richer for such training of its members. I do not say that gardening is a panacea for all the ills of the world, although, doubtless, it is for the most of them, but there can be no question that the community which fosters gardening, in its highest and best sense will enjoy a richer, fuller, and less selfish life; for the culture of the intellect will not then be pursued at the expense, or to the exclusion of the culture of the heart.

It behoves the educational authorities then, to insist that a garden shall be attached to every school, and that proper opportunities

shall be afforded for the cultivation of the same, by the children during the school hours, and therefore, as part of their school work, nay, as the centre for all the rest of the secular work of the school. We have human beings to train, and not machines to guide; behind these human beings there is a boundless flux of power eternally the same. It rolls in music through the ages, and all the terrestrial energy, the manifestation of life, as well as the display of phenomena are but modifications of its rhythm proclaiming ever "The hand that made us is divine."

E. R. SANKARA AIYAR.

EDUCATION IN THE MAGAZINES.

Scholarships in Secondary Schools, by Mr. V. Guruswami Sastri, B.A., L.T.

Mr. V. Guruswami Sastri writes to the *Hindu*:—The recent enhancement of fees in Secondary schools has made secondary education very costly to even the middle classes. To the poorer classes the door is practically shut. In the old code, from the income calculated according to standard rates, a deduction of 10 per cent. was allowed for scholarships and concessions to poor students. The removal of this provision from the existing code and the increase of fees seem to show that the policy of Government in regard to Secondary Education is that it is not intended except for a smaller and higher class of society. It is an irony of fate that while in England people are fighting for free Secondary Education, we in India should not have gone beyond the stage of an ineffectual agitation for free Elementary Education. The cry in England of "25 per cent. of free places in Secondary Schools" is but a mere patch on a worn-out system. Secondary Education must by means of generous grants be brought within the reach of all who have the capacity to profit by it."

Next let us consider what provision is made for poor scholars in other provinces of India. In Bengal free studentships shall not exceed 5 p. c. of the total number on the rolls exclusive of the scholarship-holders, or including the Muhammadans it may go up to 8 p. c. In the United Provinces students may be admitted free of

charge up to a limit of 5 p. c. of the number of scholars in each section of the school. Another 5 p. c. can be admitted at half-rates if they are too poor to pay full fees. Bombay is more liberal, allowing 15 p. c. of the total number of pupils to be free-scholars. If a rich province like Bombay allows 15 p. c. of scholarships, the same 15 p. c. will not be too much for a poor province like Madras.

In other provinces the children of teachers drawing a salary below a certain limit are exempted from payment of fees. In Bengal the son of a teacher whose salary does not exceed Rs. 50 a month may read free in the school in which the father is employed, and a second son may read at half-rate. In the U. P. half-rates are allowed for the sons and dependent relatives. In the Punjab teachers with less than Rs. 30 a month may educate their sons free in the vernacular schools and vernacular departments of Secondary schools. Similar privileges are allowed in Assam and the Central Provinces.

One hackneyed argument put forward by Government for the withdrawal of the fee concession is that they have created a large number of Government scholarships. The number of such scholarships is inadequate, only one or two boys being fortunate enough in a school to obtain them. Moreover the benefit of such centralised system of scholarships under Government gift does not reach most of the schools, so great is the scramble for them. The better plan is to allow the managers to include the amount spent on scholarships in the expenditure column.

While the rates of fees per pupil in Madras are higher than the rates in other provinces, the amount spent on scholarships in Madras is smaller. The following table shows the amounts spent by the various provinces on scholarships in Secondary schools in 1911:—

PROVINCE	AMOUNT
Madras	58,000
Bombay	78,000
Bengal	75,000
United Provinces	104,000
Punjab	94,000

Elementary Education.

by Mr. M. M. Balakrishna Aiyer.

Mr. M. M. Balakrishna Aiyer, of Kulitalai, writes in the *Hindu*:—The great defect that we have found out in our experience is the artificial distinction of institutions into Elementary and Secondary as watertight compartments. Such a system has already been found to be unwork-

able, and to a large extent the Elementary school has considerably fallen short of the high ideals set up originally, with a sufficient relaxation of rules and curricula. The curriculum in the two types of institutions is almost identical and the said distinction is only theoretical. But the rules of admission with penal fees, the different rates of fees for corresponding departments in the two types of institutions, the striking differences in the qualifications and the salaries of teachers—these remain and they demand readjustment. The differential curricula started with the theory of education suitable to environment—the practical education of the masses as opposed to the education of the middle classes. Such a distinction in the rudimentary stages is nothing short of a specialisation with a vengeance which cannot but be unhealthy and unworkable. Up to and inclusive of the Fourth Standard—say up to the age of 9 or 10 of the pupils, professional education is unthinkable. It will have to be largely vernacular education, with, of course, hand and eye training and all of that system, but with little or no English. The present curricula up to the said standard in the two schools, are identical, with this difference that English is the first language in the one, and second language in the other—taught only by different sets of teachers.

The total obliteration of differences in the curricula, and the complete unification of the courses, will restore the link between Elementary and Secondary schools, as the old Primary and the Lower Secondary schools stood. In this scheme of unification, the rules regarding the rates of fees, and the qualifications of the teaching staff will be the same and admissions from one to the other will be full and automatic. The rates cannot be so high as those in Secondary schools; the present rates of the Elementary schools may prevail; only where a Fourth Standard is opened it may be somewhat higher than the one at present. Higher rates of fees in what may be called purely vernacular schools, especially at a time of a public demand for free and compulsory education, is completely out of the question. The qualifications of the staff will admit of only three classes, Elementary trained, Lower Secondary and Higher Secondary trained teachers. The minimum qualification of the Headmaster in a Fourth Standard school can neither be of the same low standard as of old, nor the unattainable standard of a B.A., L.T. of the new rules, or even the School-Final or the Matriculate. A Lower Secondary trained teacher ought to be deemed sufficient, with Elementary trained teachers in the lower standards. The

minimum so laid does not take away the option of appointing better qualified teachers, where better circumstances permit.

The Indian Women's University, by Prof. Karve.

Prof. Karve delivered a very stirring address on the proposed Indian Women's University at a meeting at the Gangana Mantapam, Triplicane. The Hon'ble Mr. Justice T. V. Seshagiri Iyer presided.

The Professor pointed out that there were three important departures from the present system of education, firstly, the medium of instruction in the Secondary and the College courses would be in the vernaculars, secondly, the course of studies will be framed to give full instruction to suit the needs and requirements of women and thirdly, the University does not propose to approach the Government either for recognition or help. The promoters of the University wish to do that not in defiance of the Government. The reason why the University do not wish to approach Government for sanction is there are so many initial difficulties. The Government may ask the University to collect fifteen or twenty or more lakhs of rupees first and then take the next step. They did not want to be crippled in that way. They could not raise such large amounts at call. They hoped to make way towards Government recognition in course of time.

He then sketched the progress of the Japanese University for Women although doubts were entertained there also about its success. Some people here said that they had a number of institutions affiliated to the existing Universities, but the proposed University was not an enemy or a rival of those institutions and was only intended to supplement their efforts. The courses in those institutions took a longer time than many of our girls could spend there. Our girls are withdrawn from the schools at 14 or 15 by which time they would not even be able to matriculate. If knowledge is imparted in the vernaculars it could be done much more easily. The girls could be matriculated two years earlier than they are able to do now and the College course also could be reduced by a year and this University would be able to impart to them a larger amount of knowledge in a shorter time through the medium of the vernaculars than through English. So there is need for this University just for this reason that we can shorten the period of studies, we can frame studies

for the Matriculation Examination with a sort of finality in it and completeness about it, that is if a girl leaves her studies at about 14 or 15 she will know something which would enable her to understand the aspirations of their brothers and husbands and other male relations in the family. They must look to the knowledge they give and not to the vehicle of that knowledge. He was of course not against teaching English, he did not wish to say English should be excluded. If this scheme of courses in vernacular succeeds in the case of girls it would help them to introduce the vernacular courses in the men's Universities also.

Another reason for a separate University for women is that they must have a change of course. While there would be some common subjects as Science and Mathematics he would like to have some changes, for instance, he would ask the girls to undergo a course of nursing in a hospital to become eligible for a Matriculation Certificate. In fact the education that is given them should be such as to fit the lives they will have to live.

Lord Carmichael on Discipline.

At the Convocation of the Calcutta University, H. E. Lord Carmichael gave the following advice to the students present:—The word discipline is, I fear sometimes misunderstood. It means primarily the relation which exists not in the East only nor in the West only but everywhere between teacher and his disciple, between the Guru and his Chela and if the teachers or the students have really broken away from that relation something is very far wrong indeed. Discipline does not mean something harsh, unbending, unsympathetic. It may at times involve hard treatment but it does not involve loss of dignity, far from it. It adds to the dignity of both pupil and teacher. There is no servitude in discipline though there is an implicit obedience which does honour to those who give it quite as much as to those who receive it. The teacher may have faults, teachers often have and pupils are not blind, but none of us are free from faults and as the old Hindu Law giver whom I quoted said the teacher must not be treated with disrespect even though the pupil may feel grievously offended. The Law giver expressed his meaning very directly when he stated what in future births would become of the pupil who censured his teacher and that there might be no mistake he added the words 'though justly.' That was the view held by the Hindus in ancient days. It is the view held in all educational institutions of

which I have experience in the west and I feel sure it is the view of the great majority of thinking men in Calcutta to-day.

Discipline is not a thing confined to schools or colleges. It begins in the home. The father has to be obeyed not because he is always right but because he is the father, and after our college days are done there is the great world beyond where the training of discipline is one of the factors of character which does most and for which the world pays handsomely, for it makes for human progress. My experience of students here is not so great as yours but, such as it is, it leads me to believe that Bengalee students quite as much as any students elsewhere have high ideals of honour and of duty and that their aim is honourably to live noble lives. I know that there are many factors in a student's life here with which I am not familiar but that hardly explains all that puzzles me. I look back on things that happened in my open experience more than once in other countries where a fault was committed against college discipline and the authorities did not know who had committed it. I ask myself what course did the College authorities take, what course did the public opinion and student opinion expect them to take? Did they telephone to the Commissioner of Police to come and help them to find the culprit? Such an idea would have seemed to them absurd. They placed the punishment on the shoulders of the body of students directly concerned, but not with the object of including any student to give information concerning the others. To try to obtain information in such a way from others than guilty is repellent; to give information about others in such circumstances is dishonourable in student life whether in England or in Bengal. No; they trusted to the honour of the offenders themselves. They believed that the offenders would value honour more than they dread punishment and would come forward to bear the punishment due to them. I know individuals will not always in fact do this. But I should always have expected my fellow students as a whole to feel that they ought to do it and to look to individuals to justify the expectation.

The Study of Logic under the New Regulations of the Calcutta University, by Anilbaran Ray, M.A., B.L.

Mr. Anilbaran Ray, M.A., B.L., Professor of Logic, Krishnachandra College, Hetampur, writes in the *Collegian*:—The first thing that strikes any teacher of Logic under the New

Regulations is that the students who come to study Logic after passing the Matriculation Examination sadly lack the necessary knowledge of the English language. To speak the truth, very few matriculates are able to gain any substantial advantage by reading such stiff books as those of Carveth Read and Bain. And even if they can manage, with the help of their teachers, to understand some portions—the matter does not end there. How often is it seen that though a student fully understands any topic of Logic, still he is unable to express it in his own words in English? This difficulty, in ninety-nine cases out of hundred, leads him to buy cheap cram-books and commit the very language to memory. Indeed, this deficiency in the knowledge of English is, in most cases, responsible for the students' indiscriminate use of cram-books on all subjects and especially on Logic. We can suggest here two ways in which this difficulty about language can be remedied.

The first remedy that comes to our mind is that the standard of the knowledge of English required for the Matriculation ought to be raised. The other and apparently the better remedy is to allow students to study Logic through the medium of their vernacular languages. It may be objected that there are no good books on Logic in any vernacular. Our answer is that if there be demand of such books there will be no want of supply. Another difficulty which hardly escapes the notice of any teacher of the Intermediate course of Logic is that the students, in most cases, have not even any rudimentary knowledge of the natural sciences. At every step in the study of Inductive Logic specially we meet with illustrations from one or other of these sciences. "Science" is even included as a subject in the syllabus of Inductive Logic. Questions are often set in the University which assume that the students have at least an elementary knowledge of the sciences. And yet there is no provision made by the University as to wherefrom the students will get this elementary knowledge. To sum up then the few suggestions that I humbly put forward for the consideration of the University authorities. The study of Logic ought to be made compulsory for all students as it is "manifestly indispensable to a liberal education." We may note here a significant fact that though Logic is not a compulsory subject under the New Regulations still it is almost universally chosen by the Arts students. The difficulty about language can be best removed by allowing the students to study Logic through the medium of their respective vernacular languages. To further facilitate the study of Logic

and also to ensure a fair general knowledge to the students, some elementary courses on the natural sciences ought to be made compulsory.

THE UNIVERSITIES.

CALCUTTA UNIVERSITY.

The Convocation of the Calcutta University was held on the 11th inst. at the Senate House, His Excellency Lord Carmichael, Rector, presiding. There were about 1,500 graduates present to take degrees. His Excellency then called upon Dr. Devaprasad Sarbadhicary to deliver his address.

Dr. Devaprasad Sarbadhicary began his Convocation Address with a reference to the unique ceremonial of laying the foundation stone of the Hindu University by H. E. the Viceroy and characterised it as a matter of high significance. He said it was his privilege to press the student housing question on the attention of the Government who had been good enough to adopt a scheme of a separate central infirmary, apart from ordinary sick-rooms, provided in hostels. Continuing he said that they had 761 recognized schools and 51 affiliated colleges as against 50 schools and 13 colleges in 1857. Referring to the recent Presidency College incident he appealed to the students to co-operate together to help in the cause of order, good government and seaminess. He sought their co-operation because a stern public opinion amongst the students themselves would be far more effective than any repressive measures the authorities could devise. In conclusion he paid a high tribute to the wonderful service of Bengali young men, many of whom Graduates of the Calcutta University, were doing in Mesopotamia for the name of the King and the country.

His Excellency the Chancellor of the Calcutta University is pleased to approve of the following elections of Ordinary Fellows by the Faculties of Science and Law and by Registered Graduates of the University with effect from the 11th March, 1916:—

Elected by the Faculty of Law.

Rai Chunilal Bose Bahadur, M.B., I.S.O., F.C.S.

Elected by the Faculty of Law.

Babu Birajmohan Majumdar, M.A., B.L.
Elected by the Registered Graduates.

Dr. Bidhanchandra Ray, B. A., M. D.,
R. C. S., M. B. C. S.

Dr. Dwarkanath Mitra, M. A., D. L.

The Governor-General in Council has been pleased to sanction the re-appointment of the following gentlemen as University Lecturers at Patna in the subjects stated against their names for a further period of two years with effect from the commencement of the current session :—

E. A. Horne, Esq., M.A.—Economics.

Babu Jadunath Sarkar, M.A.—History.

PUNJAB UNIVERSITY.

The Punjab University is inviting applications for a Professorship of Post-Vedic Sanskrit in the Oriental College, Lahore. The University requires a graduate in Sanskrit who possesses a knowledge of the language not inferior to a Shastri and who has in addition received a sound training in European methods. The Professor will be expected to instruct advanced classes and to do research work and assist research students. If a suitable candidate can be found the appointment will be for five years in the first instance and salary Rs. 500 a month. If no such fully qualified candidate apply a temporary appointment may be made, the salary being graduated according to the qualifications of the candidate.

Reviews and Notices.

THE LAWS OF ALGEBRA, BY A. G. CRACKNELL,
(UNIVERSITY TUTORIAL PRESS, 1915.) 1s.

A rigorous logical account of the fundamental Laws of Algebra is very difficult, and should not be attempted in the early stages of the teaching of Algebra. The fundamental concepts of Algebra should be presented in a concrete way, and the various principles involved in algebraic processes should be demonstrated or justified by geometrical and other illustrations. But it is very necessary that the student of higher mathematics and the teacher of even secondary school mathematics should have a clear notion of the laws of Formal Algebra. The book before us is intended to provide this knowledge. "In order to give the simplest possible account of the Laws of Algebra this book has been based upon the ordinary arithmetical concepts of number, integral and fractional, and no attempt has been made to deal with imaginary numbers, infinities, limiting

values or irrational indices" (Preface). Chapters are devoted to the fundamental laws for integers, the derived laws for integers, fractions, positive and negative numbers and the laws of signs, irrational numbers, and the theory of indices. The chapter on indices is taken bodily from the author's *School Algebra*. The book is a small one containing 68 pages.

A JUNIOR TRIGONOMETRY, BY W. G. BOMHARDT
AND A. D. PERROTT. (BELL AND SONS, 1914.)
3s. 6d.

This book is intended by the authors as a textbook for beginners of the subject. In the earlier chapters only acute angles are dealt with. The sine, cosine, and tangent alone are first introduced, and after the student has been made familiar with them, the other three trigonometrical ratios appear. This is a good plan. Practical problems involving acute angles only are proposed, and Trigonometry is put to practical use at the very outset. The tables of natural sines, etc., are introduced and their use explained immediately after the definition of the trigonometrical ratios, a course which, we believe, is open to objection. It is not desirable to burden and bewilder the student just beginning trigonometry with the use of these tables, before he has acquired a clear notion of the trigonometrical ratios, and has learnt to apply them to simple practical problems not requiring the use of the tables. The book next deals with obtuse angles and the relations between the sides and angles of a triangle. Oblique-angled triangles are solved by division into two right-angled triangles, with applications to heights and distances. Trigonometrical identities, transformations, etc., occupy the closing chapters of the book.

PRACTICAL MATHEMATICS FOR TECHNICAL STUDENTS,
BY T. S. USHERWOOD AND C. J. A. TRIMBLE.
(MACMILLAN & CO. 1914.) 3s. 6d.

The applications of mathematics to practical problems are increasing day by day, and the scope of "practical mathematics" is, therefore, becoming wider and wider. It is not possible in a volume of moderate dimensions like the present, to give even a brief account of the whole field. The book before us deals with the elucidation of certain important topics in Arithmetic, Elementary Algebra, Geometry, Mensuration and Trigonometry. Particular attention is paid, in arithmetical calculations, to contracted methods

of multiplication and division of decimals. The large number of examples which are worked out in the book present excellent models of solution, and the collections of exercises at the ends of the chapters are practical, varied and interesting. The whole book is written in a neat and clear style, and the portions of it dealing with the use of squared paper, the determination of laws from observation, the slide rule and the measurement of rates are particularly attractive.

EXERCISES FROM "A NEW ALGEBRA," PARTS I—
IV, BY S. BARNARD AND J. M. CHILD. (MAC-
MILLAN & CO., 1913.) 2s. 6d.

The exercises in this book have been taken from the first four parts of the authors' *New Algebra*, and the book is divided into four parts corresponding to the parts of the original text. The collection of exercises and the test-papers contain numerous, varied and interesting problems, and the teacher of elementary algebra will find the book very useful and handy.

A FIRST SCHOOL CALCULUS, BY R. W. BAYLISS.
(LONDON: EDWARD ARNOLD.) 4s. 6d.

In this book an attempt is made to teach the elements of Calculus to beginners by means of a series of simple questions based on concrete problems. The book is written almost entirely on the lines of oral teaching. This plan might perhaps benefit the private student, but we think it is overdone. No connected and reasoned account of the fundamental processes of differentiation and integration is given, and to a student who has worked through the book, the subject will consist merely of the various problems that he has been helped through by a series of suggestive questions.

The book deals only with the simplest forms of differentiation and integration, with very easy applications to maxima and minima, areas, volumes, centroids and moments of inertia. Only the most elementary knowledge of algebra, geometry and trigonometry has been assumed.

PUBLICATIONS RECEIVED.

New English Course for Indian Schools: Longmans.
Primer. 3 as.; First Reader. 4 as.; Second
Reader. 6 as.; Third Reader. 8 as.; Fourth
Reader. 10 as.; Fifth Reader. 12 as.

The New Science, by Rev. Frank R. Burrows,
M.A., F.R.G.S. George Philip. 6d. net.

Books and Pamphlets from the C.L.S. Madras.

S.I.M.A. Tamil Examination papers 1910-14,
edited by A. C. Clayton. 12 as.

Muhammad in Islam, by the Rev. William Gold-
sack. 8 as.

Principles of the System of Education in India,
by the Rev. William Miller, C.I.E., D.D.,
LL.D. 2 as.

Aspects of the Redemption Act of Christ, by the
Rev. W. H. T. Gairdner, B.A. 2 as.

The New Science, by the Rev. Frank R. Burrows,
M.A., F.R.G.S. 6d. net.

India and Missions. Third Edition. 4 as.

Plants Useful and Wonderful. Pts. I & II. 1 anna
each.

Picture Composition, Teacher's Book, by J. Nelson
Fraser, M.A., I.E.S., K. J. Cooper: Bombay.

Geographical Exercise Books with Questions, by
B. C. Wallis, B. Sc. Macmillan & Co., Ltd.:
London. 6d.

Readings from Indian History, by Ethel R. Sykes,
O.L.S.I. 35, John Street, Bedford Row: London.
2s. net.

The Boy who would not learn, by Herbert Strang.
Henry Frowde, Oxford University Press.
6d. each.

On the Art of Writing, by Sir Arthur Quiller-
Couch. Cambridge University Press. 7/6 net.

*Sure Success in Matriculation English. Model Que-
stions. Parts I & II* by P. Mukerjee, B.A.,
Headmaster, Victoria College, Gwalior. 8 as.

We are desired to publish the following:—

A very pleasant evening was spent at 'Rock Cottage,' Bellary on the evening of Tuesday, the 21st inst., when Principal and Mrs. Cotelingam were 'At Home' to the students of the VI Form and the members of the Teaching Staff of the Wardlaw institution.

On behalf of the students R. Narayanachary made a striking speech thanking Mr. and Mrs. Cotelingam for the entertainment and for their kindness in inviting them. He expressed his deep gratitude for the valuable lessons they had learnt under the Principal who to them was in all respects what Dr. Arnold was to Rugby. He said they were all specially fortunate in having had the privilege of studying *Tom Brown's School Days* under Mr. Cotelingam and the practical lessons taught would long be remembered and enable them to be manly and faithful.

The Telugu Pandit Mr. K. Sabha Sastry thanked the host and hostess for the social gathering which he and his colleagues thoroughly enjoyed. For the information of those present he stated that Mr. Cotelingam completed 25 years of service in Bellary which very few engaged in educational work have been able to render in any place. He described in eloquent terms how that service was rendered known to all, young and old, and shown by the high appointments held by his former students and by the University qualifications obtained by a large number of them.

Mr. T. N. Vadivelu, B.A., the senior among the masters present, was the next to speak. He was thankful for the occasion which brought the teachers and the VI Form students together.

Mr. Cotelingam then made a speech thanking those present for the pleasure of their company. He spoke of the help and the co-operation of the masters and wished the VI Form every success in their examination. He was glad the latter remembered the profitable hours spent in the study of *Tom Brown's School Days* and Matthew Arnold's *Rugby Chapel*.

Indian Educational Notes.

MADRAS.

The Hindu High School, Srivilliputtur.—The sixth anniversary of the Teachers' Association attached to the Hindu High School, came off on the 9th instant. The celebrations commenced at about 5 p.m. with a tennis match in doubles, after which the invited guests of the evening were treated to tea and light refreshments. Then a largely attended meeting was held in the western wing hall of the school, with Mr. W. C. Douglas, M.A., Inspector of Schools, VIth Circle, in the chair. The proceedings began with the reading of the annual report by Mr. A. Srinivasachary, B.A., L.T., the Secretary of the Association. The report was very interesting, as it disclosed several items regarding the efficient working of the Association. The report having been read, Mr. Douglas who was also the lecturer of the evening, rose up and delivered an instructive lecture on 'Student life in Britain,' which took up

nearly an hour and a half. In the course of his speech, he made a striking contrast between the student life in India and that in Britain and explored very much the lack of originality. The patriotism in the average Indian student. The lecture over, Mr. S. Krishna Iyengar, B.A., L.T., the Headmaster of the School, proposed a hearty vote of thanks to the chair. The singing of the National Anthem brought the meeting to a happy close.

The Madanapalle High School.—The twenty-ninth anniversary of this school was held on the 13th instant and its celebration this year was combined with gymnastic feats given in honour of the retirement of the Headmaster, Mr. R. Giri Rao. Mr. D. Gajumarti, B.A. (Hons.), Lecturer of the College, gave an eloquent discourse on the progress of this institution from its foundations in the days of Mr. O. L. Sarma and Mr. Giri Rao to the present day when the Theosophical Educational Trust had come to the rescue of the latter at a very critical time.

Mr. R. Giri Rao then replied suitably.

Mr. Ramanuja Iyengar then made a few fitting remarks about the necessity for physical culture and field sport where respect for authority and law would be inculcated in the minds of the students. With a vote of thanks to the chair the proceedings terminated.

BOMBAY.

State Scholarship for Indian women graduates.—Applications are invited from Indian women graduates of the Bombay Presidency for a State scholarship for the study of medicine. The scholarship is of the value of £200 a year, and will be tenable in the United Kingdom, or, with special sanction, in foreign countries, for a period of 3 years in the first instance, with the possibility of extension in special circumstances to four or five years if the candidates elect to take a special diploma in midwifery and gynecology or to specialise in some other direction. The scholarship will carry with it no conditions as to any subsequent career or service under Government and no expectations of such employment will be held out. Candidates for the scholarship must possess at least an Indian degree in medicine. The conditions of the scholarship in full detail are published in the recent 'Bombay Government Gazette.'

Women's University Draft Scheme—AIMS AND OBJECTS:—(a) To make provision for the higher education of women through Marathi as the medium of instruction. (b) To regulate the pre-University education and to formulate courses, throughout, specially suited to the needs and requirements of women. (c) To make provision for the training of teachers for primary and secondary schools. (d) And such other objects, not inconsistent with these, as may be added by the Senate from time to time.

CONSTITUTION:—The University shall consist of:—1. The Chancellor, 2. The Vice-Chancellor, 3. The ex officio fellows, and Ordinary fellows.

The number of ordinary fellows shall be sixty. Of these, thirty shall be elected by the (a) electorate.

twenty-four by the (b) electorate and six by the (c) electorate.

QUALIFICATION FOR FELLOWSHIP:—No person can become an ordinary fellow unless he is either (a) an M. A., M. Sc., M. D., or M. C. E., of Indian or other Universities, or (b) a graduate of more than ten years' standing of any University, or (c) one who is or has been an ordinary fellow or an examiner in any of the Indian or other Universities, or (d) a person specially distinguished in arts, literature or science and who has advanced the cause of education in particular and who has been recommended by the Syndicate of the University.

Provided every such person has got his name standing on the electoral roll of the (a) or (b) electorate and knows Marathi well.

ELECTORATE:—(a) Members of the Hindu Widows' Home Association. (b) Graduates of Indian or other Universities paying not less than Rs. 10 per annum or Rs. 300 in a lump sum to the University. (c) Sympathisers who pay not less than Rs. 5 per annum or Rs. 150 in a lump sum to the University.

N. B.—No person shall have his name registered on the (b) or (c) electoral roll unless he has accepted the aims and objects of the University and has paid his subscriptions for such period as may be provided for in the bye-laws.

No change shall be made in the above except with the consent of three-fourths of the total number of fellows.—*Leader.*

CALCUTTA.

Pabna College Building.—The long-expected and much-needed house for the location of the Pabna College has had its foundation laid the other day by the Commissioner of the Rajshahi Division, Mr. H. F. Samman, I.C.S., before an influential and respectable gathering. The College has a chequered history, being carefully protected against its demolition by the zealous efforts of its adored founder Babu Gopal Ch. Lahiri. All the misgivings and doubts occasionally aroused as to its continuance have at last been dispelled by the raising of a permanent structure to which our Government has contributed substantially. We wish a speedy erection of the house, so that the classes may be held in the new building.—*Bengales.*

The Sibpur Engineering College.—Sir Rajendranath Mukherjee, presiding at the recent annual prize-distribution of the Sibpur Engineering College, addressed some words of advice to the students. He said that though it was said that the Indians lacked powers of initiative and administrative ability he was confident that there was nothing inherent in their blood permanently disqualifying them from becoming sound and practical Engineers. Bengal had produced brilliant men in every other department of life and he appealed to the students to wipe out the reproach in the field of

engineering and to prove that they in their chosen profession would achieve the same success as had been attained by their countrymen in other professions. Sir Rajendranath Mukherjee advised the students not to hesitate to do manual work. They would never hope to gain practical experience unless they tried their hands whenever occasion arose. He laid much stress on practical education and said that notwithstanding their high college education they would learn a good deal from ordinary practical workmen. He was sure that zeal, devotion to duty, a true sense of responsibility, combined with strong common sense and high moral character would enable them to climb to the top of the ladder, but they would find that to gain that position they would have no time at the beginning of their careers to be mixed up in politics or saddled and burdened with family affairs.

Management of the Midnapur College.—A very delicate question has risen over the management of the Midnapur College which has been under the management of the Local Municipality since the year of its transfer in 1887. The Government agreed to pay all reasonable costs of efficient management of the college subject to certain conditions to be fulfilled by the Municipality. The arrangements had gone on till 1910 and the grant-in-aid to the college had been revised every three years and occasionally also 'ad interim' if required. The whole financial situation of the college was then made the subject of special audit by the Local Government when a large demand was made on them for enhanced grants under various heads in view of the changes which had to be introduced under the then new regulations of the University. The result was that the consolidated grants to the extent of about Rs. 8000 a year to the college, collegiate and its subordinate institutions, were held in abeyance subject to an enquiry by the Department into the state of its finance and managements and the "ad interim" grant of Rs. 2700 a year in respect of the salaries of two professors was withheld. Thus with a small provisional grant during all these seven years the Municipality could hardly make up for the increased requirements of the institutions. Several officers left and the governing bodies, financially powerless and crippled, could do very little; even the small increments which they recommended could not be given effect to during the period. On the reports of the University Inspectors the Syndicate once threatened the college with disaffiliation; the number of students seeking admission, though on the increase, considerably fell off as the science classes could not be opened even after so long a lapse of time for want of new rooms which the Government took upon themselves to provide, only the repairs to the existing buildings having been left to the Municipality. The Director of Public Instruction, the Hon'ble Mr. W. W. Hornell, on his assumption of office, surveyed the whole affair and recommended to the Government that a reasonable grant might be made to the institution with effect from the current official year

since 1st April 1915, beginning on a clean state, for he reported to the Government of Bengal that notwithstanding his several visits to the college with the express purpose of settling accounts he could not do anything in the matter and the Government of Bengal agreeing with the view taken by the Director, sanctioned the grants with effect from 1st April 1915, but refused to depute special auditors to investigate the accounts. The Municipality was till lately in vigorous correspondence with the departmental authorities but with no definite results. It has not yet been allowed to draw the amount of the last year's grant and while the correspondence is swelling some portion of the grant is likely to lapse in a month if not already lapsed six months ago. The officers of the college and some teachers of the school feeling the pinch of the delay made simultaneous representations to the Chairman, Midnapore Municipality and President of the governing bodies to have the matter settled one way or the other, as they were pressed for living expenses and claimed increments. The Chairman's action in the matter is anxiously awaited together with the Government orders.

Prize for Indian ladies.—The Director of Public Instruction, Bengal, has issued the following notification:—

Babu Brajamohan Dutt's Prize for Indian Ladies for the year 1915-16. None of the essays sent in for competition for the year 1914-15, having come up to the desired standard, the following alternative subjects, which were prescribed for that year, have been re-fixed for the year 1915-16:—

- (i) *Rearing and up-bringing of children up to the 10th year of their age.*
- (ii) *Education of Indian women according to the requirements of modern life.*

The conditions for the award of the prize are—

- (1) That the competition be open to all educated women, being natives of Bengal, without regard to age.
- (2) That the prize of Rs. 45 be given for an essay to be written either in Bengali or Sanskrit.
- (3) That the essays be sent to the Central Text-book Committee for adjudication within six months of the date of advertisement.
- (4) That each essay be accompanied by a written declaration from the husband, parent or guardian of the competitor that, to the best of his belief, she has received no assistance of any kind, direct or indirect, in writing the essay.

Candidates are requested to send their essays not later than the 31st May 1916 to the Secretary to the Central Text-book Committee, Office of the Inspector of Schools, Presidency Division, 285, Bowbazar Street, Calcutta. The envelope containing the essay should be superscribed "Brajamohan Dutt's Prize Essay." The name of the successful competitor will be published in the *Calcutta Gazette*.

A lady who wins the prize in any year is not debarred from subsequent competition; and if the essay submitted by a competitor who has been

previously successful is adjudged to be the best, the name of such a competitor will be published in the *Gazette* as the winner of the competition. The actual prize will, however, in these circumstances, be awarded to the competitor whose essay is adjudged to stand next in order of merit, provided that her essay comes up to the standard required by the next clause.

If none of the essays come up to a standard which is, in the opinion of the examiners, adequate, no prize will be awarded.

An Endowment.—Babu Satish Chandra Roy, a Zamindar of Ujani, P. S., Mukudpur, Mymensingh, died in Calcutta in November last, leaving a registered will in respect of his entire property, both moveable and immovable, by which he bequeathed it for the establishment of a College at Faridpur in the first instance. By the will he appointed five gentlemen joint executors to his estate. The executors have been instructed by the testator in the will, to collect his assets and then to sell his property and clear his debts after which to spend the balance for establishing a college there. If no college can be established within 5 years, the executors will have to spend the money for the establishment of a high school in his native village, failing which the amount will have to be devoted for the spread of primary education in pergunnah Telinati in this district. It is presumed that his property will fetch a value of Rs. 35,000 and as his debts will not be more than Rs. 4,000, a sum of about Rs. 30,000 will be at the disposal of the executors. It is understood that several Zamindars and merchants are ready to subscribe liberally towards the project. We hope to see the college established by next year.

A Residential College.—We understand that the Maharaja of Coimbatore's scheme, for the establishment of a residential college in Calcutta, has made further progress. The institution is to be named the Sarnamoyee College. The proposed governing body of the college will include the Maharaja, as President, Mr. Justice Chaudhuri, Mr. S. C. Mitter, Dr. B. N. Seal and Prof. R. K. Mukherjee. The scheme has been submitted to the University, who will forward it to the Government of India for sanction. The building has capacity for the accommodation of 500 boarders, besides, about a thousand day scholars. The proposed residential college will be the first of its kind in India. The University has appointed six Inspectors to examine the project and they have already made a preliminary inspection of the scheme and the building. Their final report will be submitted very shortly.

Calcutta Madrasa.—The Hon. Mr. P. O. Lyon presided at the annual distribution of prizes to the pupils of the Calcutta Madrasa which was held in the quadrangle of the institution on the 9th instant. There was a very large attendance, particularly of

the Mahomedan community. The first part of the programme consisted of well rendered odes and spirited recitations in Arabic, Persian, Urdu and English.

The Principal, Mr. Harley, in presenting the report, after referring to the unfavourable results of the financial strain caused by the war, said that the number of students in both the Arabic and Anglo-Persian departments had been well maintained. In the former there were 515 against 500 in the previous year. In the latter there were 533, which was slightly less than the record figure of last year. This was in great measure due to the transfer of Behari boys to their own province. The Madrasa easily maintained its superiority in the number of passes and quality of work on the central examinations.

The Hon. Mr. Lyon, in his presidential speech, congratulated the pupils on the unexampled success in the Matriculation examination.

DELHI.

The Hindu College, Delhi.—The Hindu College of Delhi has been passing through a crisis for some time and owing to lack of funds the college authorities have been unable to open the B. A. classes and Government grant has in consequence been withdrawn. A preliminary public meeting was held recently to consider the position of the college. Rai Sahib Roy Ninan, Barrister-at-Law, presided. He explained the position of the College and appealed for further subscriptions. Several speakers followed, including Pandit Sheo Narain, who announced that, during the Christmas vacation, Mr. Peary Lal and others had gone round collecting subscriptions and a substantial sum had already been collected. He emphasised that Rs. 50,000 would be immediately required to satisfy the condition of the University, which he said should be forthcoming, and urged that the Sanskrit school must be placed on a sound basis. He said there was enough room for two colleges in Delhi, and if the Hindu College was to disappear, many students would fail to secure admission and pursue their education.

The Hardinge Library, Delhi.—The opening of the Hardinge Library new buildings at Queen's Gardens, Delhi, took place on the 16th instant. There was a large gathering of ladies and gentlemen present at the function. The Rev. Stephens Thomas, Secretary of the Committee, read the report.

Sir Sankaran Nair in declaring the building open said: This library is not only a memorial of Lord Hardinge but also a monument of his regard for the people of this city. It is well that the memorial took this form. Delhi wants a good library. It was here that the Queen of England was proclaimed the Empress of India. It was here that her successor's accession was announced and it was in this historic city that our Gracious Emperor announced his assumption of sovereignty and received the allegiance of his subjects and

made Delhi the future capital of his Indian Empire. It is therefore, only in the fitness of things that Delhi should have very early in her new career a good library in a suitable building and that it is but right that this should be accomplished before the departure of the Viceroy who really made Delhi the capital of the Empire. It is true we had a collection of books, I shall not say a library, in Delhi, but books were in obscure godowns and therefore not of much use. We have therefore, to congratulate ourselves that an imperative need has been supplied.

UNITED PROVINCES.

High Schools in U.P.—In accordance with the resolution accepted by the Government at the Council meeting of the 18th December 1915 it has been decided to appoint a fully representative Committee to consider what steps can be taken to increase the accommodation in the High Schools of the United Provinces. The constitution of the committee will be as follows:—(1) The Hon'ble Mr. C. F. De la Fosse, M.A., President. (2) Mr. E.A. Richardson, M.A., Secretary. (3) Mr. A. H. Mackenzie. (4) Rai Bahadur G. N. Chakravarti. (5) Mr. E. Stocks. (6) Pandit Manoharlal Zutshi. (7) the Hon'ble Dr. Sunder Lal, C. I. E. (8) the Hon'ble Rai Gokul Prasad Bahadur. (9) the Hon'ble Brijnandan Prasad. (10) the Hon'ble A. Siyad Mahomed Abdul Rauf, Barrister-at-Law. (11) the Hon'ble Munshi Masudoo Prasad. (12) the Hon'ble Munshi Aghbar Ali Khan. (13) Mr. Aftab Ahmad Khan, Barrister-at-Law. (14) the Rev. Norman H. Tabbs. (15) the Rev. William Cutting. (16) S. P. Sanyal Sahib. The Committee will be convened as early as possible after the 15th May 1916 at Naini-Tal.

The Gurukula University.—The Fourteenth Anniversary of the Gurukula University, Kangri, Haridwar, was a grand and magnificent success. Lectures were delivered by Mahatma Gandhi, Mahatma Munshiram, Swami Satyanand, Swami Sarvadanand, Professor Ramdeva, Professor Balakrishna and Babu Brijnath. Thousands of men, women and children from all parts of the country participated in the celebrations. Mahatma Gandhi's reception was most enthusiastic. He presided over both the Arya Bhasha and the Depressed Classes Conferences. His speeches were much appreciated. On an appeal for funds made by Mahatma Munshiram, over forty thousand were collected in hard cash. Besides, an Arya book-seller gave away his entire stock valued at fifteen thousand to the Gurukula. The Convocation ceremony for conferring Degrees was most impressive. One Brahmachari got the Doctor's Degree (Vachaspati). Three Brahmacharis became Bachelors of Vedio Theology (Sidhant Alankar) and eight were admitted to the Degree of Bachelor of Arts. (Vidya Alankar). The Initiation ceremony (Vedarambha Sanskar) was also performed with befitting solemnity and about thirty new Brahmacharis were admitted.

The Educational Review.

We confess to a feeling of intense pain and indignation at the disgraceful incidents that have happened in the High School Department of the Wesley College within the last few days. Two members of the staff, Messrs. Brunt and Williams—their names deserve to be pilloried in print in unenviable notoriety—would seem to have been guilty of the most brutal and indecent flogging of all the members of one of the sections of the Sixth Form, as they thought they had deliberately kept themselves away from the classes the previous day. We have not the remotest intention of screening the pupils of that ill-fated class from any misconduct on their part. Being educationists we have a keen appreciation of the principles of scholastic discipline and should not countenance any attempt at the introduction of disorder and disobedience of authority into school life. We are charitable enough to assume that these two eminent propagators of learning, were particularly anxious to impart their precious knowledge—if they had any—to the pupils of the class even the week before the examination, without giving them any time for preparation. If they absented themselves in defiance of authority—that has yet to be proved and the students seem to have come back to their classes the moment their attention was drawn to a special notice—they deserved to be punished.

But we find it difficult to suppress our loathing of the savagery of the punishment meted out to them by these two apostles of 'sweetness and light' who had in addition the preposterous claim of being the apostles of the peaceful Christ. According to report,—not denied in any material detail by the Principal in a statement which he has sent to the Press—they were stripped of part of their clothing—the Principal says they were not reduced to absolute nakedness and we will take it to be true—and made to receive violent blows on the buttocks with a birch. We understand that blood was drawn by the caning, and Doctors have testified to the grievous injuries sustained, and they did the horrible business with all the calmness, arrangement and deliberation with which professional executioners go about their work. We had no suspicion that our schools harboured such savage martial ire, but the proper place for it would surely be among the German Huns who have not hesitated to draw their revolvers against innocent and defenceless women and children. We have no doubt that the English race would disown the man who could inflict such brutal punishment on defenceless school-boys who have been entrusted to him for intellectual and moral improvement! What makes it more serious is that this provoking behaviour is only the culmination of a series of affronts to national character shown day after day in the class-room, in the cowardly assurance that the poor boys could not retaliate.

and any nonsense that may come from the teacher will pass on unchallenged at least by the boys. The two teachers would seem to have taunted the boys as 'cowards,' but we do not know what to say of men who would take advantage of their position as teachers and insult the little boys that have had the misfortune to be placed in their charge. We are told that they have made an expression of regret, but we are afraid nothing short of severe punishment in all possible ways, by the Department for the violation of one of the most important of Educational Rules*; and by the public in general for their utter callousness to Indian life and sentiment, will satisfy the needs of the case. Such incidents constitute a disgrace to the Educational world in general and should meet with stern disapproval from every quarter.

* *Madras Educational Rules, Chap. VII, 69, p. 19 of 5th Edition, 1915, runs:—*

PUNISHMENTS:

Corporal punishment shall not be inflicted in schools except in a case of moral delinquency, such as deliberate lying, obscenity of word or act, or flagrant insubordination, and then it shall be limited to six cuts on the hand and be administered only by or under the supervision of the headmaster. The headmaster shall record in a register every case in which such punishment has been inflicted, specifying the name, class and age of the pupil, the date, the nature of the offence and the amount of the punishment. Gross cases of immorality and insubordination shall be punished by expulsion, subject to the conditions specified in Rule 58.

The Government of India gave to the various Indian Universities certain grants to enable them to exercise in some measure the functions of teaching universities. The Madras University has responded by perpetrating two paradoxes: (1) college lecturers delivering university lectures and (2) university lecturers delivering college lectures, both to audiences composed mainly of Honours students of the Madras colleges. For more than fifty years we, in India, had but examining universities and hence did not know what a teaching university was like. We were first enlightened as to the functions of a teaching university when college lecturers were called upon to deliver university lectures and, of course, were given extra pay to do so. The audiences were the same old college students, the subjects were the same old college subjects, the lectures were the same old boilings down of the same, old text-books but the lectures were university lectures, paid for by the university,—that was where the teaching university came in. Then came the appointment of university lecturers, and we thought that here was something new, not to be found in the old examining university. But the Madras Senate has at the instance of the Syndicate and notwithstanding the opposition of sundry Fellows resolved that the university lecturers should "take a specific share in the works of the Honours course," in the Madras colleges; and thus we are going to have

university lecturers delivering college lectures on the same old subjects to the same old audiences in the same old way. This seems to be characteristic number two of teaching universities, for the lack of which the graduates of the till now but examining universities of India have proved such worthless articles. Thus has the efficiency of the Madras colleges been triplicated, for their students will get a triple course of lectures, to wit college lectures by college lecturers, university lectures by ditto and college lectures by university lecturers. The mofussil colleges cannot, in the nature of things, derive this benefit, for mofussil colleges cannot necessarily be part of a teaching university but can merely be adjuncts of the examining part of a teaching university. We hope we have now learnt definitely the mystic relations between universities and colleges and the difference of functions of teaching and examining universities.

Besides the teaching work referred to in the last paragraph, the Syndicate of the Madras University, in its standing orders approved by the Senate at its last meeting, has prescribed some special work for each university professor. Thus the Professor of Indian Economics has to conduct economic inquiries, though he is not asked to publish reports on the same; the Professor of Indian History and Archaeology has "to prosecute researches in Indian History and Archaeology and to give publicity to his results in the form of University lectures" and besides "to deliver regular courses of

ordinary university lectures on selected subjects in Indian History and Archaeology." We fail to see why this poor professor alone has to deliver a double set of university lectures whereas the other two professors have, are prescribed, no such duties? Is the conduct of research in Indian History and Archaeology likely to produce somnolence, which can be cured by requiring the lecturer to deliver two sets of lectures, besides the college lectures which all university professors have to deliver to Honours students? The case of the third professor is unique. He is the Professor of Comparative Philology and his work is unique in this sense that the standing orders do not contemplate his conducting researches or enquiries of any kind whatsoever. Possibly there is no field for research left in Comparative Philology. His chair, the rules say, "shall have special, but not exclusive reference to Sanskrit, and the Sanskritic languages of Southern India including Urdu." We confess we find this rule cryptic. Since this university professor has neither to conduct researches nor deliver university lectures, we cannot see what the special reference of his chair to Sanskrit means. Nor do we know what languages are referred to by the phrase "Sanskritic languages of Southern India." Dr. Caldwell taught us to call the languages of Southern India "Dravidian." Probably by the "Sanskritic languages of Southern India" are meant the languages of Maharashtra and Orissa, but what a Madras professor can have to do with these

languages passes our comprehension. Then, again, what can the chair of Comparative Philology in the Madras University have to do with Urdu, except that Comparative Philology deals with all languages under the sun necessarily including Urdu? Besides having "special" reference to so many languages, the chair is intended to exercise supervision of the work of all research students selecting subjects related to the subject of his chair. We see in our mind's eye a hive of busy bees, each working in its own cell storing the honey culled from various Indian languages and the queen-bee, we suppose we ought to say, the king-bee, exercising "general" supervision, besides undertaking "special" references to his own chair, Sanskritic and otherwise. We certainly think the chair of Comparative Philology is no sinecure and we now see why the holder of the chair is not required to conduct researches or enquiries, to publish reports and prove his diligence like the Professor of Indian History by delivering a double set of lectures.

At a certain stage in the discussion on the standing orders, the Vice-Chancellor felt called upon to express his opinion in the matter. "He said he took far more interest in the research part of the work of a university professor than in the teaching of Honours students. The teaching work should not be such as likely to injure the research part of the work of the professors. He should like to say there were no sinister ideas at the back of the resolution, although the language was different with regard to

the different professors. It was more an accident than anything else. The Syndicate would do what they could later on." Notwithstanding this assurance, we cannot help remarking that the standing orders with regard to the work of the University Professor of Comparative Philology do not require him to do any research work of his own. This was not the intention when the chair was first instituted. Our readers will remember that this chair was not originally intended to be one of general philology, but of the linguistics of Sanskrit and Sanskritic languages. It was expected that the holder of the chair would found a South Indian School of Sanskrit Studies as they are understood in Europe and America, would himself conduct research and train people in research work in the field of Sanskrit grammar and Sanskrit literature as is done in Germany, America, England and France. But this university professor has gradually changed his character and become general controller of "the work of all university lecturers and assistant lecturers and readers in Indian languages." This change in function was caused when the proposed chair of Dravidian Philology was broken up into readerships, now to be reconstructed into lectureships. We regret that the Fellows who discussed the standing orders with so much warmth did not perceive clearly the gradual evolution of the work of the Professor of Sanskritic Philology into one of Supervisor-General of Indian Language Studies. The Hon'ble Mr. V. S. Srinivasa Sastri seems to have

felt that the Professor of Comparative Philology had but little work to do, for though he did not raise the question when the standing orders were discussed, he later on proposed a committee to enquire into the work done by the Professor of Comparative Philology, among others, but this subject disappeared in the cross-currents of amendments to Mr. Srinivasa Sastri's motion.

The Senate, having, by approving of these standing orders, dropped original research work from the duties of the Professor of Comparative Philology, proceeded to consider the question of cancelling the appointment of two out of its five Readers in Dravidian Philology, and improving the status of the other three. The Syndicate was satisfied on the strength of a confidential report by the University Professor of Comparative Philology, that the two Readers were good for nothing so far as Dravidian philological research was concerned and the other three were so good that they could lecture to students on the subject. While the Syndicate was unwilling to publish this report it called on the Senate to ratify its conclusions based on the report. We are absolutely unable to guess why the Syndicate is unwilling to let the report see the light of day; it cannot be because the report merely contains a discussion on the merits or demerits of the Readers; for at the meeting of the Senate when the Readers were appointed, there was a public discussion of the life-histories of the men appointed by the Syndicate—even of the number of times

one of them failed at sundry university examinations. The overt reason for withholding the report mentioned by the speakers on behalf of the Syndicate was that it was drawn up by an expert. We refuse to believe that reports of experts ought not to be read by laymen. We believe that laymen can infer from reports not only the merits of the persons reported on but also the qualifications of the reporting officer to sit on judgment over the performances of the Readers. We hope that, at least to allay criticism, the Syndicate will see its way to publish Dr. Collins's report on the work of the five Readers in Dravidian Philology.

The Government of India has recently addressed Provincial Governments a letter* calling upon the latter to report on the question of female education in India with a view to "taking such forward action as is possible in the matter." The Government of India expects the reports "to take stock of the present position in the matter and to focus the opinions of competent persons on the main question at issue." While thus the Government of India gives full latitude to the Provincial Governments to discuss at their discretion all questions that may arise in connection with female education, the letter shrewdly points out that on account of the disruption in various parts of the country of the joint-family system, the headship of families has gone

* The full text of this letter appears elsewhere in this issue.

from the hands of old and experienced mothers-in-law or of helpful widows to the younger generation of Indian women. We perceive the hand of the Indian member of the Government of India in charge of the Education Portfolio not only in this remark but all through the letter in question. The fact that young women are now at the head of various Hindu families renders it necessary that the curricula of girls' schools should be so revised that the girls who are trained in schools should thereby be rendered fit to discharge efficiently the new duties that are devolving on them. Independent of this special consideration, we are of opinion that the present policy of having practically the same curriculum for girls' schools as for boys' schools is at least partly responsible for the lack of popularity of our girls' schools. The curricula of boys' schools but perpetrate the traditions of mediæval monks as petrified by generations of pedagogues; they form a Procrustean bed on which is stretched the brains of boys; they are not conceived as a preparation for life for the boys that undergo tuition: much less are the curricula fitted to help girls to prepare themselves for the duties in life. We are therefore glad that the Government of India has placed the recasting of curricula in the forefront of their programme of reform of female education.

Another very important change foreshadowed in the letter of the Government of India is the creation of local committees for the control of the education of girls. At present girls' schools,

like boys' schools are not controlled by local bodies and hence bound by the red tape of the Educational Department. The control of local bodies will tend to make the school work suited to the needs of the localities; it may lead to special measures to meet local prejudices, especially with reference to the difficulties created by caste customs. We therefore think the creation of local committees to look after female education a step in the right direction. Even in the case of secondary girls' schools, there are but few in the country, as was recently proved in the case of the Triplicane school, teaching is conducted in them, not in accordance with but in defiance of local sentiment. If the schools had been managed by a local body, it would not have been necessary to have raised a debate in the Madras Legislative Council with regard to the language in which children ought to be taught in the Triplicane school.

The Government of India's letter deals also with the question of the training of teachers and inspection of girls' schools. We hope the Provincial Governments will publish interrogatories on the matters dealt with and invite a wholesome public discussion and we will then have an opportunity to deal in detail with every point that may arise in connection with what is immediately necessary for the education of "females" as the Government of India unhand- somely calls our girls and ladies.

We acknowledge with pleasure receipt of the Report of the Salem Teachers' Association for the year 1915. It is a record of very useful educational work and if every important centre in our Presidency could put forth equally strenuous work on the part of the members of the teaching profession we should have no misgivings with regard to the educational progress of our part of the country. There was regular and sustained work carried on throughout the year and it touched several aspects of educational life. Among the interesting subjects discussed at the periodical meetings of the Association were the present S. S. L. C. Scheme—a subject which seems to furnish endless scope for difference of opinion—; home and school influences; school hygiene; discipline in schools; English composition in secondary schools; moral and religious instruction in schools. It is refreshing to note that the Association did not confine its activities to the mere discussion of educational subjects. Arrangements were made for an experimental medical inspection of children in the lower classes of the Salem College, but could not be carried out because of the outbreak of plague in the town. The subject is among the most urgent problems of present day Indian Education and it is hoped the Salem Teachers' Association will be able to do some valuable work in that direction at least in the course of the next year. With the help of the President, Mr. P. Seshadri, M.A., who presented a number of valuable books to the Association, an attempt was made at the starting of a Library for the Association. We congratulate the members of the Association on their work and note with pleasure that the revival of the activities of the Association and its record of progress are mainly due to the guidance and inspiration of Principal P. Seshadri, M.A., of Salem.

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HYDERABAD EDUCATIONAL CONFERENCE.

PRESIDENTIAL ADDRESS OF MR. S. M. HABIBUDDIN,
TO THE 2ND HYDERABAD EDUCATIONAL CONFERENCE
HELD AT AURANGABAD ON MARCH 3, 1916.

The following are extracts from an abridged translation of the Address:—

It is not my intention to dwell on the educational backwardness of Hyderabad. You all probably know that the percentage of scholars in public and private schools to the school-going population in these Dominions is between 7 and 8 per cent. as compared with very nearly 18 per cent. in British India. We have had special difficulties of our own to contend with in the past and besides we have commenced late. At the same time where is the critic who will say that with the accession of an enlightened and cultured ruler like H. H. the Nawab Mir Oosman Ali Khan Bahadur a new era of progress has not dawned upon this country? His Highness has always considered the educational progress of his people to be one of his chiefest cares and the results are obvious to you in every direction. For example, I will only mention this: That in the four years immediately preceding his accession to the throne the State expenditure on education was Rs. 34,48,000 and in the four years after he ascended the Masnad the expense was Rs. 45,86,000 or an increase of Rs. 11,38,000. The Budget Estimate of 1325 (Fasli) compared with that of 1320 (Fasli) has increased by Rs. 5,90,000.

In general terms our goal is the advancement of education in this country in all its aspects—collegiate education, secondary and primary education, female education, the education of the depressed classes, moral, physical, and technical

education. All this however is not sufficiently complete.

A UNIVERSITY FOR HYDERABAD.

My own suggestion, and I make it in all submission, is that our ideal should be the creation of a full-fledged University in His Highness the Nizam's Dominions to serve the special needs of His Highness' subjects. The Government of these Dominions is indigenous. We enjoy the good fortune of being under National Rule. This necessarily makes vast difference to our educational aspirations and outlook. Here in this great Native State, Hindu and Muhammadan cultures meet and embrace each other and both have always received large and liberal hospitality at the hands of its enlightened rulers. This therefore is just the soil for the rearing up of a great seat of learning; a University which while making ample provision for the impartation and development of the learning and science of the West will at the same time offer a hospitable home to the ancient learning of the East—its varied literatures, its deep philosophies, its wonderful, social and religious systems, its fine art, which is among the marvels of the world. Nothing stirs up the latent talent of a people so much as the presence of a great temple of learning in their very midst, planted, served and cherished by its own people. Around this, a nucleus of men of learning gather both from within and without. Intellectual capacity of every form is attracted there and to the young it becomes a centre of inspiration urging them to the noble paths of intellectual progress, while to the community generally it is a source of just and generous pride, calling forth its enthusiasm in the service of knowledge, setting free the fountains of public

and private charity in the holy cause of education and in a hundred other ways advancing the cause of national progress.

Until however we realise that ideal, what are we to do for the higher education of our youths? Are we to continue under the yoke of the Madras University whose courses and examinations are perhaps too advanced for our somewhat backward people or should we attempt to get ourselves affiliated to some other more congenial University? The remedy appears to be attractive on the surface, but, gentlemen, there appear to me to be great practical difficulties in the way and my humble advice to you is to wait and consider well before you arrive at a final judgment. To change from the courses of one University to those of another will mean a serious dislocation of studies which will take some years to set right. Most important of all such a change would postpone the realization of our hopes of having our own University. Would it not be better to continue as we are and turn all our energies and all our best thoughts and efforts towards the realization of our ultimate ideal. I for one venture to think that this would be the better course.

SECONDARY EDUCATION.

As a member of the High School Leaving Certificate Board it has been a source of great gratification for me to watch the slow but sure improvement in our system of Secondary Education and I have no doubt that when the new schemes now before Government are sanctioned and proper buildings are provided by the Public Works Department, we shall no longer have any reason to fear comparison with the most advanced provinces in British India.

It is a further source of gratification to me that an advanced system like the High School Leaving Certificate Scheme which provinces like Bombay and Punjab are only now taking up has not only been working satisfactorily here for some years but has now under the recent regula-

tions regarding the award of additional diplomas to holders of "satisfactory" and "very satisfactory" records attained a measure of popularity which I could hardly have foreseen a very few years ago. I can safely say, I am sure my colleagues on the Board will all bear me out, that the prophecy in para 27 of the famous Resolution of the Government of India, one of Sir Harcourt Butler's most noted productions, is borne out by the results obtained under the Scheme in Hyderabad. The words of the Resolution are "Some such system however as has been sketched above, adapted to local conditions, would be most beneficial and do more than anything else to foster a system under which scholars would be taught to think for themselves instead of being made to memorize for examination purposes."

The extent to which popular opinion has veered round may be judged by the fact that in Amerdad 1323 Fasli (July 1914) most of the boys who had passed out of the Form III went from the Aurangabad High School to Poona and other places to prepare for the Bombay University Matriculation Examination which requires only a two years course. In Amerdad 1324 Fasli (July 1915) all of them joined Form IV of the Aurangabad High School to follow our three years High School Leaving Certificate course; not a single one of them went to Poona or anywhere else. The opponents of the system in Bombay, Lahore, Calcutta and Madras will, I am sure, take a more favourable view of its possibilities if they study its working in His Highness' Dominions.

The President then pleaded for primary, female and industrial and agricultural education.

CONCLUSION.

But a few words more, gentlemen, and I have done. I have told you that I am no pessimist. Indeed when I gaze from the immediate present to the hopeful future my heart fills with joy at the prospect that unfolds itself before my eyes.

I believe in my fellowmen and I believe, as every true Hyderabad believes, that a great and glorious future is in store for these Dominions under the shadow of the throne of Asif Jah. We have here everything that could ensure the happiness and prosperity of a numerous people. Thanks to the protection of the mighty British Empire we are insured against external aggression of every kind. Our soil is fertile and our mineral resources have excited the wonder and envy of travellers from the most ancient times. We are not a puny nation with limited means but a great kingdom endowed with the amplest resources. We are free from the racial squabbles that disturb the peace of less favoured territories beyond our border. The great traditions of Imperial toleration that cluster round the immortal name of Akbar the Great were brought down to the Deccan by the First Asif Jah and have ever been preserved as the basic principles of the Administration of this State. Hindus, Muhammadans, Christians and Parsees, all unite in loving loyalty to the throne and descendants of Asif Jah.—*The Hindu*.

BISHOP WHITEHEAD'S ADVICE TO TEACHERS.*

The Lord Bishop said that he was very glad to have the opportunity to meet them that afternoon and say just a few words to them. He was glad to be able to speak to them because he was an old schoolmaster himself and the greater part of his life had been spent either in teaching or in being taught, so that he knew something of the splendid opportunities of the profession of a teacher. It is, he thought, one of the greatest and grandest professions in the world, and there were at the present time in India especially few professions

* The valedictory address of the Teachers' Association delivered by the Lord Bishop of Madras at a meeting of the Association at the Teachers' College, Saidapet, under the presidency of the Hon'ble Mr. J. H. Stone.

which could have greater opportunities of usefulness and good for the country than the profession of the teacher, and so he was speaking to those who will for a very considerable extent help to mould the life and thought of the future generation of India. On the thoroughness, the interest and efficiency of their work would depend to a very large extent the future progress and prosperity of South India. One of his reasons for going there that afternoon was because he felt immensely the great importance of their work and on account of the privilege to speak a few words of encouragement and help. He knew a very good deal of the difficulties and trials of a schoolmaster's life. He had experienced them in India, during his 16 years of work in India before he came to Madras. And in the course of their life it would open out to them possibilities of usefulness and grand work and it also will bring out to them special difficulties and special temptations and special trials. They must face those difficulties and trials in a courageous spirit. They should remember that difficulties in the world always existed in order to be overcome. And often the difference between a man who succeeds and the man who fails in life is so much because the man who succeeds has a more resolute heart than the other because it is the man who has the resolute heart and puts forth the greatest effort who will in the end succeed in life and do the best work.

Education was a very wide subject and he might say a very tempting subject to speak upon but he was not going to speak to them on such subjects as the Montessorian method which might be very interesting to them nor on such subjects as teaching in the vernacular on which strong opinions are held in India for he might call forth a strong protest from the Hon'ble Mr. Stone. He would speak to them about his ideal of education required for India, what kind of men were required and what kind of work they have to do.

the less they aim at it themselves the less likely are they to encourage the pupils.

The admirable situation of the college, their spacious grounds, their equipment for educational work, all combine to make the place for young men to spend a year of greatest enjoyment.

Speaking about the Vernacular education he reminded that their duty was to see that all subjects are taught in the Vernacular up to the end of the Third Form and that to see that they are not taught in English unless the special permission of the Inspector is received to the contrary. But he was afraid that it was not generally the case that the rule was observed. Their clear duty was to obey the rule. He endorsed the Lord Bishop's word about "By-hearting" and hoped they would not attempt to do it.

He was glad that the position of the teacher was gradually improving in society and they are taking more interest in things around them and showing more activity in things for the welfare of the progress of the town. He knew at last one Headmaster of a High School who was also the Chairman of the Municipality.

There is nothing at all inconsistent in the universe of these two functions and he is glad some teachers are taking part in municipal or village matters and the more they can use their superior knowledge and education the better would be for all concerned. In conclusion he wished them success in their examination and in their profession.—*The Hindu*.

MADRAS UNIVERSITY.

SENATE MEETING.

A meeting of the Senate of the Madras University was held on the 3rd instant, the Hon'ble Sir John Wallis, the Vice-Chancellor, presiding. There were about seventy Fellows present.

APPOINTMENT TO FACULTIES.

On the motion of Mr. B. Hanumantha Rao, the newly appointed Ordinary Fellows were assigned to the several Faculties.

EXEMPTIONS TO STUDENTS.

On the motion of Mr. W. H. James, the recommendation of the Syndicate exempting a number of students from the production of the required attendance certificates for the various University Examinations was adopted.

ALTERATIONS IN REGULATIONS.

The Syndicate reported to the Senate certain changes that had been introduced in the timetable and the dates of certain examinations.

UNIVERSITY PROFESSORS.

Mr. Mark Hunter moved that the sanction of the Senate be accorded to the arrangements embodied in the Standing Orders relating to the appointment and duties of University Professors. In so doing, he said that, for the most part, the standing orders did not introduce anything new and that they were mainly declaratory. He pointed out that a committee of three formed by the Syndicate, called "the Professors Committee," made these recommendations, which were known by the Professors themselves and mostly approved of by them. Three principles underlay these recommendations. The first was that the important duty of the Professor was to conduct researches and supervise the research work of others, that it should be the duty of the Professor also to take some part in the higher teaching work of the University and also take part in any other work directly preparatory to advanced studies. Each Professor should also take a specific share of the

Honours teaching, first, that he might get into touch with under-graduates who were likely later on to take up research work and, secondly, because the University gave a definite pledge to the colleges at the time when the Honours courses were introduced to assist them in the burden thrown on them by the new courses. The third duty of the Professor, it was said, was to help on any work to further advanced study. These were indicated in the standing orders. As regards the amendments suggested by Mr. K. B. Ramanadhan, Mr. Mark Hunter maintained that they were out of order, on the ground that it was not competent for the Senate to amend the Standing Orders of the Syndicate. The Senate might throw them out or refer them for review, but they could not try to alter or dictate to the Syndicate as to how they should be altered. But as regards the first order, relating to the Professor of Comparative Philology, the Syndicate was perfectly willing to withdraw that particular clause, namely "that this Professor shall be *ex-officio* Chairman of the Board of Studies in Sanskrit, etc."

Mr. Prendergast seconded the motion.

In reply to the Hon'ble Dr. Nair, Mr. Hunter said that Dr. Collins did know some Tamil, though he could not say what the extent of his knowledge was.

The Vice-Chancellor ruled that it was undesirable to go into such personal matters.

In reply to Father Bertram, the Hon'ble Mr. Stone said that it would not be possible to make attendance compulsory on students of mofussil colleges for the lectures by University Professors to Honours students, unless the existing regulations were changed.

Mr. K. B. Ramanadhan said, with reference to all the standing orders relating to the University Professors, that they might be abandoned as General Order No. 6, "that a University Professor may be required not only to engage in the

work of research but also to deliver courses of lectures and conduct classes as the Syndicate may direct," served all the purposes and gave the Syndicate all the powers that they might require to arrange for the work of the University Professors. He was of opinion that the orders, as they stood, were of an irritating character, and he did not think that any University Professor would like to put up with the differential treatment which some of the orders suggested.

The Hon'ble Mr. K. Srinivasa Iyengar said that the Syndicate having withdrawn the first special clause relating to the Professor of Comparative Philology, he did not know if the Senate could proceed with the discussion of the rest of the orders.

The Vice-Chancellor ruled that it was competent for the Senate to do so.

Mr. Srinivasa Iyengar suggested that it would be proper if the Syndicate withdrew all the recommendations and reconsidered them and submitted others, if necessary, in their place.

The Vice-Chancellor ruled that the first recommendation about the Professor of Comparative Philology being *ex-officio* Chairman was so distinct from the rest of the proposals as to be separable and might be withdrawn and that the debate as to the rest might go on.

Mr. G. A. Natesan urged that nothing should be done to prejudice the interests of the mofussil colleges in the matter of the lectures arranged for Honours courses by University Professors. He feared that the interests of colleges in the Presidency town were apt to be promoted to the prejudice of mofussil colleges.

Mr. H. J. Allen said that the University Professor was never intended to take over the duties of the ordinary Professor of a College, but to deliver a course of lectures on a special branch.

Mr. K. Ramanuja Chariar pointed out that the language of the special standing orders

He would first of all tell them what he thought they ought not to be. First of all they ought not to be mere machines for imparting information. In education as well as in everything else there is a tendency for them to get into a rut and make themselves mere machines. There is not much difficulty in getting a routine method of imparting information. They should set themselves against becoming mere machines, especially because India is a very conservative country. If there is a tendency in all parts of the world for people to be conservative, it is far more so the case in India. He supposed it is partly due to the climate and partly due to many other causes. So they should remember above all things that their main object was not to impart information but to stimulate in their pupils to get them and to use their knowledge. "It involves a trained effort on the part of the teacher. It is very easy, nay simple, to set before the pupils certain facts and ask them to get them by-heart and he was sorry to say that was a very common method in India. He remembered it very well when he was in Calcutta, the Professors gave the students some notes and when he went to the hostel he saw the students seated and swinging their bodies went on repeating the notes and whenever he went to the hostel he heard this sound and when he asked them what they were doing they said in characteristic Bengalee fashion we are "by-hearting" what we had yesterday." The speaker told them not to imitate the methods of the Calcutta Professors. The method of instruction in the Calcutta University seemed to him to be about as foolish, as unscientific as futile as anything foolish unscientific and futile he had ever seen or heard of in the methods of education. Therefore, whatever they do they should not imitate them.

When he was speaking to Dr. Gilbert Slater the other day about education he said that the schoolmaster has got to do all his work bending down and that is what makes him go tired. That

seemed to him, to put vividly one important truth with regard to education. That is, the teacher has got to bring his mind to the level of the students. It is very tiring to the mind. And if they are to do so it is necessary that the teacher should have a real sympathy with his pupil. In one of his lectures recently in Madras, Dr. Glover used another expressive phrase. He said there are only two rules for good teaching "Live your subject and love your pupils;" there was a great deal of truth in that.

In the first place no man can teach a subject unless he is interested in it himself. In the second place one could not bring his mind in harmony with another's mind unless he had sympathy with the other person and unless one loved him.

Count Tolstoy said "in breathing a part of God's life into another lies the whole of education" and he thought that was perfectly true. And the difference at the bottom between a good and bad teacher lay just as much in the heart and in the range of feeling and sympathy as it does in the mind of the pupil. The speaker gave the instance of a man in Kurnool District who was a failure as a student and found a great success as a teacher in a Panchama school because of his love for the students.

The ideal schoolmaster ought to know his pupils individually although he had to deal with them in a mass. If children are to be well taught there must be some amount of individual influence and individual teaching. They have got to deal with individuals as well as in the mass, and it is one of the great difficulties of the teacher that he has got to deal with large classes where the boys are of very different capacities and their powers very different. But at the same time the teacher ought to try and know every boy in the class individually and come into personal contact with him, because their object is not to instruct their pupils but to educate them. The word instruct was an unfortunate one. It raises the im-

pression of strewing broadcast facts of knowledge. The word education means to bring out all the latent capacity in the students, to bring all that is best in them so as to train to enable him to deal with the facts of the world. For this they have to come in contact with the life of their pupils. That is the starting point of every sound system of education. They should know the life, i.e., the feelings, the needs and even the work and the characters of the pupils who are to be educated. You cannot have a sound system of education unless it has some relation to the thoughts and feelings and work of the people. It was perhaps a little unfortunate that modern education in India started over half a century ago was started from a different standpoint. When Western education was introduced into India it did not begin with the life and thoughts and feelings of the people, but it started with the B.A. degree of London, seven thousand miles away. The object of the educational reformers in the West had been to somehow to fit the education to the life and thoughts of those people and it would be a very difficult task to fit that system in India. Now it was for the teachers to try and make education a little more humane and bring it into touch with the thoughts and feelings of the people in the different towns and villages of India and it would be for them not simply to find for themselves just the routine method of the teacher. He felt that no man could really be a good schoolmaster unless he is something more than a schoolmaster. If they confined their interests and thoughts and their work to the classroom they would never really come in touch with their people. The speaker illustrated the work done by the teacher in the school conducted by the Social Service League in a Parcheri in Mylapore in improving the life of the people there in such matters as cleanliness, etc. He would like to see a teacher like that in every village in India, a man who takes his part, an active part in trying to promote the prosperity of the village. He felt that

a schoolmaster would do work for the children very much better if he was something more than a schoolmaster himself and if he takes his place as the centre of light and leading for the whole village. If they were to play an important part in the life of the town, if they were to instruct and to draw out all the best in the characters of the pupils, and if they are looked to as the grand temperance and social reformer and benefactor in the village, they ought to remember their characters are all important. It is just the honesty, thoroughness and faithfulness of the schoolmaster in his daily work that will impress itself upon his pupils. If he is so, he will be able to impress influence upon others and be a centre of progress and of light wherever he is placed.

THE CHAIRMAN.

The Hon'ble Mr. Stone said that he was sure that every one would have felt that the ideals of a teacher could not have been better placed than was done by the Lord Bishop and he hoped they would all try to live up to those ideals. He thought they were all fortunate in having been a year in that College and hoped they would have enjoyed a year of comparative leisure. He thought that the L. T. course was very sympathetically devised and barely occupies any amount of their time. They were taking steps in order to remedy the state of things and he dared say that their successors would have to work harder than they had to do. Personally he would like to lighten the L. T. course and give them more time for the exercise of their mental and spiritual activities, only they are afraid the leisure so granted would not be usefully employed. The tendency will be to scrape enough to get the degree and waste the rest of their time. The evil of this country is they just aim at the minimum. These 50 years of education had developed a wonderful accuracy in hitting at the standard required. He was sure they would not encourage this in their pupils and

relating to the three University Professors was not uniform, though it was explained that no differential treatment amongst them was intended. He suggested that the matter might be sent back to the Syndicate to alter the language and make it uniform in its application to all the University Professors.

Mr. L. A. Govindaraghava Iyer moved that standing orders relating to the appointment and duties of University Professors be referred to the following Committee:—The Hon'ble Mr. J. H. Stone, Dewan Bahadur L. A. Govindaraghava Iyer (Convener), the Hon'ble Mr. Abdur Rahim, Mr. K. V. Rangaswami Iyengar, Mr. Mark Collins, Dr. Gilbert Slater, the Rev. Fathar Bertram, the Rev. E. M. Macphail, Messrs. C. Ramalinga Reddy, H. J. Allen, Mark Hunter, S. Koppuswami Sastri, K. Ramanujachariar, K. B. Ramanadhan, G. Venkataranga Rao, S. Krishnaswami Iyengar, and the Hon'ble Mr. V. S. Srinivasa Sastry.

Mr. K. V. Rangaswami Iyengar thought that a University Professor, according to the traditions of the older Universities, was not expected to do the back-work of teaching which a collegiate Professor did, but was there to advance research work and higher studies. Research work partook of the character of imparting instruction to students, but the converse was by no means true. He would strongly protest against University Professors being asked to deliver lectures to Honours students in the Presidency town alone. Unless the University was prepared to give an undertaking that mofussil students should also have the benefit of such lectures, he would strongly object to these lectures being given by the University Professors.

The Rev. E. M. Macphail opposed the motion to refer the matter to a committee. He said that the Government of India's special grant was given with the view of making the Madras University a teaching University. It would have been better had they given the money to aided colleges with

a view to strengthen their staff, but the Government of India in their wisdom had recommended the course of appointing University Professors. What they wanted the University Professor to do was not merely to do research work but to engage in a certain amount of teaching, and that to the Honours students. Engaging in teaching work was the only way in which the University Professors could come into touch with Honours students who were likely to engage in research work. It was a dog in the manger policy for mofussil colleges to object to these University Professors helping Madras students because the mofussil students could not also get the advantage.

Mr. C. Ramalinga Reddy asked if it followed that, merely because the Government of India gave money to develop the teaching side of the University, the University Professor should teach one of the class subjects. In Oxford, the University Professor lectured on what subject he chose, and was never dictated to.

The resolution of Mr. Govindaraghava Iyer to refer the matter to a Committee was put and lost by 35 votes against 34.

Mr. C. Ramalinga Reddy suggested that, seeing that the vote was so close, the matter might be referred back to the Syndicate.

Mr. G. A. Natesan earnestly appealed that the matter should be referred to the Syndicate.

Mr. K. B. Ramanadhan said that the general rule, No. 6, of the Standing Orders clearly provided for all requirements and that it would be better to give up the special rules in regard to these Professors, which were of a most irritating description.

The Hon'ble Mr. Stone opposed the suggestion to refer the matter to the Syndicate, as he was of opinion that the Syndicate could not materially alter these orders. The Madras colleges, even as they were situated at present, had several advantages over the mofussil colleges and in this

matter also of University Professors, they would have a special advantage by the fact that the University Professors were located in Madras. It could not be helped. He thought it was necessary also to define the work of the University Professors as soon as possible.

Mr. C. Ramaswami Iyer thought that there would be an advantage in referring the matter back to the Syndicate, who might modify their standing orders in the light of the opinions expressed at the meeting.

Mr. K. V. Rangaswami Iyengar suggested that the University Professors might be asked to repeat the lectures for the benefit of mofussil students.

The suggestion to refer the matter to the Syndicate was put to the meeting and lost.

The Vice-Chancellor stated that he was, personally, more interested in the research part of the work of the University Professors than in the teaching of the Honours students, and if he found that the latter work interfered prejudicially, to the interests of the former part of the work, he would certainly take care to see that the injury was mitigated.

UNIVERSITY READERS.

Mr. Mark Hunter moved that the following recommendation of the Syndicate be adopted:—

(1) That the Readerships in Dravidian Philology be not renewed after the expiry of the term of office of the present Readers.

(2) That Mr. K. V. Subbaya, M. A., L. T., be appointed a University Lecturer in Dravidian Philology for a term of two years on a salary of Rs. 300 per mensem.

(3) That Mr. B. Seshagiri Rao, M. A., and Mr. S. Anavarathavinayakam Pillay, M. A., L. T., be appointed Assistant University Lecturers in Dravidian Philology for a term of two years on salaries of Rs. 250 per mensem.

(4) That the work of the Lecturer and of the Assistant Lecturer in Dravidian Philology be

under the supervision of the Professor of Comparative Philology.

In so doing, he explained the circumstances under which the scheme of University Readerships had been introduced. Referring to Dr. Collins' work, he said that Dr. Collins had to work under great difficulties. He admitted that the fact that Dr. Collins had no knowledge of Dravidian languages was a handicap, though it was by no means a disqualification. He pointed out that Dr. Collins had been called out here to found a School of Philology in connection with Indian languages, not only Dravidian but Sanskrit. He lamented that the study of languages in Madras had lagged behind all other studies, from the point of view of modern methods. A mere look at libraries would convince anybody that the results of modern scholarship were not accessible to scholars in India. As regards Dravidian languages, Dr. Grierson had pointed out that nothing had been done since the days of Bishop Caldwell. Linguistic science had made rapid strides in the meantime, Dr. Collins and the Readers had been working for the last 18 months and under the difficulties of Dr. Collins which he had already referred to it was not possible to produce results which would impress the ordinary man in the street. Mr. Hunter personally did not know the Dravidian languages and could not judge of the work of the Readers, but from what he had heard from Dr. Collins it appeared to him that they were doing very satisfactory work. Some of these Readers had written these which were likely to be published, with an introduction by Dr. Collins. The recommendations contained in the proposal before the Senate were made on the advice of Dr. Collins, who was the only man qualified to judge of the work of the Readers and, so far as Mr. Hunter had been able to test Dr. Collins' judgment, he was confirmed on every point.

Mr. C. Ramalinga Reddy enquired what necessity there was for making a change in the original

arrangement in regard to the work of the Readers.

Mr. Hunter replied that it was considered that the Readers were now competent to go a step forward and do some teaching work under Dr. Collins' guidance. Though there was no College affiliated in language-groups in Madras, it was hoped that there would be some, even if it be outsiders, who might take some interest in their own languages, and that to them the lectures might be of benefit.

The Hon'ble Mr. V. S. Srinivasa Sastri moved the amendment of which he had given notice as follows:—

(i) That in paragraph (1) for the word "not" in the second line the word "provisionally" be substituted, and after the word "renewal" in the same line the words "for one year" be inserted.

(ii) That instead of paragraphs (2), (3) and (4) the following be substituted:—

"That a Committee composed as follows be appointed to enquire fully into the work done by the Professor of Comparative Philology and by the Readers in Dravidian Philology working with him—Dr. Mark Collins, the Hon'ble Mr. J. H. Stone, the Rev. E. M. Macphail, and Messrs. H. J. Allen, S. Kupprswamy Sastriar, K. B. Ramathan, G. Venkataranga Rao, S. Krishnaswamy Iyengar, K. Ramanaiahachariar and Mr. V. S. Srinivasan."

In doing so he said that he was at some disadvantage in moving the amendment. Mr. Mark Hunter spoke from inside knowledge of the work of that Department of the University, but he (Mr. Sastriar) was a perfect stranger to the work. As Mr. Hunter desired that the members of the Senate should accept the recommendations put forward in the resolution, he could not consider it unreasonable that members of the Senate should ask to be put in possession of all the materials upon which the Syndicate had based their recommendations. The Senate was perfectly in the dark as regards the work of Dr. Collins and the

Readers and also in regard to their plan and general lines of work. Whether the experiment conducted during the past months had been a success and whether the Syndicate were right in thinking that that experiment so far conducted should be dropped or superseded—those were questions on which every one of the Fellows must be satisfied before they were asked to exercise their votes upon the proposal. Dr. Collins had apparently sent to the Syndicate some sort of reports, one or two on the work, but what these reports were the Senate was in the dark about. They should have been embodied in the agenda, as used to be done in the case of a great many other such reports. He would ask Mr. Hunter to be a little more careful in dealing with amendments that had not yet been moved. He (Mr. Srinivasa Sastriar) had asked for the appointment of a Committee, but he did not say that it should be public. If the Syndicate had satisfied itself on sufficient materials that the experiment of Dravidian Readers should be superseded, the Committee would go along the same lines. If the Syndicate had not held the enquiry in public and if Dr. Collins had not been injured, why should the Committee that he (Mr. Srinivasa Sastriar) proposed be thought would be public and would prejudice Dr. Collins.

The Vice-Chancellor:—It is not Dr. Collins but the Readers that will be prejudiced.

Mr. Srinivasa Sastri (continuing) said that he had understood from Mr. Hunter that it was Dr. Collins who had been labouring under very great difficulties in regard to this work. It was said that Dr. Collins worked with material which was imperfect. What had led Mr. Hunter to say that the Senate did not know. He had felt during the last few years that the Syndicate would have gained in efficiency and authority to deal with the great multiplicity of questions that came before in connection with Dravidian languages and that they would have two or three fit and proper representatives of Dravidian languages and San-

skrit on the Syndicate. When recommendations dealing with these languages came before the Senate, why should it be considered wrong on the part of Indians, being natives of the country, that they should ask that a Committee should be appointed to go into the matter? He had suggested more Indian names on the Committee than Europeans deliberately. He quite appreciated the difficulty of getting men possessing the double qualification which Mr. Hunter had referred to, of knowledge of the principles of Comparative Philology and knowledge of the languages dealt with. He, however, did not think that Mr. Hunter would go so far as to say that a person who did not know the languages but who knew the principles of Comparative Philology in general was better than a person who had the knowledge of the languages dealt with but not a sound knowledge of the principles of Comparative Philology. He was not speaking then as a student of Comparative Philology but wished to set out qualifications of a few people who might not be well versed in Comparative Philology but whose knowledge of the languages certainly gave them some competence to discuss the question. If the Senate wished that any resolution come to by that body should command any authority and weight in the Presidency, they would do well to submit the recommendations to a Committee and have them canvassed and examined thoroughly.

The Hon'ble Mr. Stone and the Rev. Mr. Macphail, whose names he proposed for the Committee, among others, certainly possessed a knowledge of Comparative Philology.

The Hon'ble Mr. Stone said that he did not claim to possess a knowledge of the subject.

Mr. Srinivasa Sastriar said that if Mr. Stone disowned at that moment a knowledge of the subject, why should he have sat on the Syndicate and sent the recommendations on the question before the Senate. The Fellows there were certainly not entire strangers to that mysterious

science of Comparative Philology. Dr. Collins, Mr. Hunter had told them, did not know anything about Dravidian Philology but had had to create a school. The Senate would like to be assured that the general lines on which Dr. Collins was proceeding were sound and promised results. Why should the Readers be placed under Dr. Collins, when he was himself a stranger to these languages? He did not say that they were not to consult Dr. Collins or that Dr. Collins was not to give them general guidance. Why should the present experiment be abandoned and another started? He would require to be satisfied a good deal more before he could give his vote to the recommendation put before the Senate. He denied the statement of Mr. Hunter that he was doing a certain amount of injustice to a person in the position of Dr. Collins, who had been placed under great difficulties in charge of an entirely new work; but he had a right and the Senate had a right to know when they were asked to drop the two Readers, what were the materials on which the Syndicate exercised their discrimination. They had nothing before the Senate except the statement that two Readers were to be dispensed with. He wanted more ample information to be furnished to the Senate and that the Senate should be let into the reason of the proposed action. He appealed to the Senate not to let it go forth by any vote that they recorded on the question that, time after time, when questions relating to Sanskrit and the Dravidian languages came up before the Senate, they were quite content that the whole matter might be disposed of by those who understood the subject but imperfectly and that they were not willing to consult those people who felt that they had a large interest in the question, and to make them feel that they were kept out and that they were asked to vote blindly on recommendations by the Syndicate, a body for whose competence to deal with these subjects he must say he felt a certain amount of hesitation.

Mr. C. P. Ramaswamy Iyer seconded the re-

solution and said that the Senate ought to be told why two of the Readerships were recommended to be abolished and three Lectureships instituted. As originally understood it was part of the work of the Readers to deliver lectures. The Senate would like to know if the Readers who were proposed to be dispensed with had delivered any lectures, and whether they were found incompetent.

Mr. K. Ramunni Menon proposed the names of Mr. Hunter and Mr. Ramakrishna Pillay to be added to the Committee.

Mr. F. S. Davis proposed the addition of Mr. Ramunni Menon's name.

Khan Bahadur Azizuddin Sahib opposed the Committee. He said that the whole thing was in an experimental stage, and that when the tree was growing it was not usual to examine its roots. He suggested, however, that the papers relating to the work of these Readers might be circulated confidentially to the Senate.

The Vice-Chancellor remarked that there was no question of any of the Readers' work being condemned, but that the more promising amongst them were selected.

Mr. G. A. Natesan said that it was but proper and fair that the matter should be referred to a Committee containing certain gentlemen who knew at least some of these languages. The Committee which had originally selected the candidates for the Readerships did not know the languages. He personally thought that the Senate ought to have been given a certain amount of information on the matter. They had no right to think that the gentlemen who were proposed to sit on the Committee would betray the confidence of the Syndicate. He believed that they would be as careful as the Syndicate of the reputation of individuals. He did not pretend to be an expert himself on any of the matters discussed, nor did it follow that anyone who posed as an expert was really an expert. Having regard to the fact that Dr. Collins' qualifications

in Dravidian languages were acknowledged to be limited, it was desirable that those who knew the languages of the country might be given an opportunity to go into the whole matter.

The Rev. E. M. Macphail opposed the motion, and said that he supported the recommendations of the Syndicate wholly on the expert advice of Dr. Collins, and not because he had any knowledge of Comparative Philology. He believed that the members proposed for the Committee were just as unfit as he was to judge of the matter. Dr. Collins was much more able, even with his ignorance of Dravidian languages, to give an estimate of the value of the work of the Readers. In regard to vernaculars, Indian gentlemen were so critical of one another's knowledge that their advice was not generally helpful on these questions.

The Hon'ble Mr. Stone also opposed the resolution. He said that he was not, however, surprised that there should be a great deal of suspicion in viewing these suggestions of the Syndicate, because it was clear to his mind that they were in the very unfortunate position of not having sufficient command of expert advice in that matter. He did not know where to go for expert advice if it was not to Dr. Collins. His impression was that if the Committee were appointed, it would be found that its philological knowledge was not great enough to enable it to judge of the work of the Readers. Dr. Collins, no doubt, had no knowledge of the Dravidian languages when he came out, but he had studied them since coming here. He feared that the Senate was making more of these appointments than their importance and the circumstances justified. The Senate was asked to appoint a Lecturer and two Assistant Lecturers for a few years, and not to continue Readerships. He could not possibly oppose his view against Dr. Collins in that matter. The recommendation was to give three men the best possible opportunity of showing their work. Dr. Collins would make greater progress in the languages

and would be in an increasingly better position to estimate the work of the Readers, two years hence.

At this stage (7-40 P.M.) Mr. R. Littlehales, seconded by the Rev. Father Bertram, moved for an adjournment till to-day. The motion was adopted.

The Senate resumed its sitting on Saturday the 4th instant when the debate was continued on the Hon'ble Mr. V. S. Srinivasa Sastri's amendment to Mr. Mark Hunter's resolution regarding the Readerships in Dravidian Philology. The amendment was that a Committee composed as follows be appointed to enquire fully into the work done by the Professors of Comparative Philology, and by the Readers in Dravidian Philology working with him:—Dr. Mark Collins, the Hon'ble Mr. J. H. Stone, the Rev. E. M. Macphail, and Messrs. H. J. Allen, S. Kappuswamy Sastri, K. B. Ramanathan, G. Venkataranga Rao, S. Krishnasawmy Iyengar, K. Ramanuja Chariar, T. Ramakrishna Pillay, K. Ramunni Menon, Mr. Mark Hunter and the mover.

The Hon'ble Dr. Nair, speaking in support of the amendment, said that they had watched carefully how the study of Comparative Philology and Dravidian Philology was going to succeed. They had occasion to see the work of the Professor of Indian Economics and Indian History, but the Professor and Readers on Dravidian Philology had been but glow-worms. Eighteen months had elapsed since they had been appointed. University Professors must come out before the public in one or two forms:—They should either lecture on any subject selected by themselves or should publish the results of the researches in which they were supposed to be engaged. His first complaint was that the public had seen nothing of them.

The Vice-Chancellor, interposing, stated that Dr. Nair was scarcely in order. No duty had been assigned to the Professors to come out and give lectures, and it was not right to attack them.

Dr. Nair said that it was not an attack he was making upon them, but he was pointing out the reason why the Committee was asked for, namely because they wanted to know what the Professor had been doing.

The Vice-Chancellor replied that unless Dr. Nair had any reason for suggesting that the Professors had not been doing their work well and competently, he deprecated anything of the sort. He was not a philologist nor was Dr. Nair and it was not for them to criticise the work of Philologists.

Dr. Nair said that it was not for the Vice-Chancellor to say so, so far as he, Dr. Nair, was concerned. When the Readers were appointed it was pointed out that they were not good enough to be Professors, and that the reason for appointing them was to give them time to study and become Professors. In 18 months they found that these five Readers had made considerable progress, and he did not see why they should now propose to drop two of them. If they wished to keep up the system of study of Dravidian Philology the more men they had the better. He could not understand the reasoning put forward by the mover of the resolution for dropping two of them. He was surprised at the Syndicate coming to the Senate and simply asking them to ratify certain decisions without giving the Senate the opportunity of going into details. The proper procedure was to have published Dr. Collins' report along with the Agphda, and then have asked for the Senate's opinion. There was no science which was so abstruse that it could not be made intelligible to an intelligent body as the members of the Senate by Professors who were really competent. If it could not be done there were only two conclusions to be drawn, either that the science was a fraud or the Professor was an impostor. He therefore supported the amendment.

The Rev. A. Moffat also supported the amendment. Mr. Srinivasa Sastri did not mean that the Committee should approach the subject in a con-

social spirit, but rather that it should consider the work of the Readers and report to the Senate. There was a serious question of policy involved, for instead of being entirely in the hands of the Syndicate, the Senate should have some opportunity of forming some opinion themselves about this matter. It seemed unfair to put men on probation for two years, and before the expiry of that period to submit them to a second period of probation. When the Tamil Readers were appointed, the intention was that one or more of them were to be selected to proceed to Europe for further study. They had now the most extraordinary explanation from Mr. Hunter that this could not be done because of the war. It could not be said that these three gentlemen were so faint-hearted as to be afraid of the danger of submarines.

Mr. Hunter said that he made no reference whatever to the danger of submarines.

The Rev. A. Moffat said that there was ample scope for study in the Universities at Home at present.

The Hon'ble Mr. J. H. Stone moved, under Regulation 22, that the matter be referred back to the same Committee proposed by Mr. Srinivasa Sastri, to enquire into the matter, and recommend the arrangements to be made after the termination of the present Readerships in August, 1917.

The Hon'ble Mr. S. Srinivasa Iyengar seconded this amendment.

This was carried, and the addition of the names of the Hon'ble Mr. S. Srinivasa Iyengar as convenor and of Mr. P. T. Srinivas Iyengar to the Committee was agreed to.

THE REGISTRAR'S PENSION.

Mr. Hunter then moved certain alterations to the regulations with regard to the Registrar's pension. At a meeting of the Senate held in October last the Syndicate had recommended for adoption certain alterations to the Regulations, but the Senate had referred back the proposition to the Syndicate inasmuch as it did not make

provision for compulsory retirement. The Syndicate, to meet the wishes of the Senate, inasmuch as there was a general feeling on the subject, had the proposition altered in the following form:—

"The Registrar shall not continue to hold office after the completion of 25 years of service or the attainment of 55 years of age, whichever be the earlier event, unless, on the recommendation of the Syndicate, the Senate shall have extended his tenure of office for a specified period."

The proposition was seconded by Khan Bahadur Mahomed Azizuddin Sahib and carried.

Mr. Hunter then moved that after Regulation 148, the following be added as a new Regulation:—

"The payment of this pension shall be made in accordance with the provisions of Article 934 of the Civil Service Regulations, fifth edition."

The Rev. W. C. Penn seconded the proposition.

Mr. K. B. Ramanathan moved an amendment to the latter portion of the resolution in the following terms:—"The payment of this pension shall be in rupees and the provisions of the Civil Service Regulations with regard to leave or pension allowances shall not apply."

Mr. Ramanatha Iyer pointed out that if his amendment were adopted, and the pension calculated on the basis suggested by him, it would result in the saving of Rs. 1,500 per annum.

Mr. K. Ramanuja Chariar seconded the amendment, but it was lost by a majority.

Mr. Hunter's substantive proposition was then put and carried, whereupon Mr. Ramanathan demanded a poll and insisted on the names of the voters either way being recorded.

The members of the Senate were then asked to stand aside according to their vote on the division and the laborious process of recording the names of the Fellows was proceeded with. This almost led to a fiasco, owing to a misunderstanding which arose in the minds of some of the voters, and when it was pointed out that in voting for the

poll demanded the house was voting against the grant of a pension at all to the Registrar, Mr. Ramanathan withdrew his motion for a poll.

THE INTERMEDIATE EXAMINATION.

Mr. C. Ramalinga Reddy moved that Regulation 181 be rescinded. He pointed out that so far from liberalising the conditions of education and making it possible for a large number of applicants to take advantage of the Intermediate Examination, they were by this Regulation shutting out a large number. Why should a student who had already undergone a two years' course in the Intermediate Classes and failed in certain groups be made to undergo another year's course. College discipline was set out as a reason. If College discipline had not produced any good results in the students in the first two years it was not likely to produce better results when, as a failed candidate, a student was told to go back to the College and study for a year.

Mr. C. P. Ramaswamy Iyer seconded the resolution.

Mr. K. B. Ramanathan, in supporting the motion, said that, according to the present accommodation in Colleges, it was simply cruel to insist on a failed candidate attending these Colleges. Many students were unable to obtain admission into the Colleges in which they wished to study. If it was made optional for them to attend or not there could be no hardship.

Mr. Hunter said that overcrowded Colleges and the difficulty of failed students obtaining admission were all due to the great failures in the Intermediate Examinations, and the reason for these failures was the admission into Colleges of students who were not fit for collegiate education.

The Rev. Father Quinn supported Mr. Ramalinga Reddy's proposal, as also did Khan Bahadur Mahomed Azizuddin Sahib.

The resolution for rescinding the Regulation in

question was then put to the vote and carried by a majority of 42 to 25.

The proposition to rescind Regulation 191, which had the same effect with regard to the B. A. course, was then moved by Mr. Ramalinga Reddy, and was duly seconded and carried.

Mr. Ramalinga Reddy then moved that the following be substituted for the rescinded Regulation 181:—

"A candidate who fails to pass the examination on the first occasion shall on the next occasion on which he presents himself for examination be allowed to sit only for those parts in which he has previously failed."

Dr. S. Swaminathan seconded the motion.

The Rev. E. M. Macphail suggested that the resolution should be drafted more intelligibly and brought up at the next meeting.

It was pointed out by certain speakers that in the Regulations the words "parts," "groups," and "heads" occurred, and it was not clear from the drafting of Mr. Ramalinga Reddy's resolution to which of these it applied.

Mr. Ramalinga Reddy then withdrew the resolution with permission to bring it up at the next meeting.

HISTORY AND ECONOMICS.

The Rev. E. M. Macphail moved certain alterations in the time-table under group V. "History and Economics" to allow of special subjects being taken up at one time. The alteration was approved.

POLITICAL SCIENCE.

The Rev. E. M. Macphail moved an alteration in the Regulations under "History and Economics" which had for its object the substitution of the words "Political Science" for the special subjects prescribed for the course. In doing so he explained that when the new courses were made it was understood that the B. A. courses were to be lightened. Then there

were six subjects and it was thought that these should be reduced to five. There was at the time a stiff course called "Political Science." It was cut out to the considerable regret of a number of those engaged in teaching the course. Now the Board of Studies had agreed that it should be replaced not in the old form but in a much simpler character, like Comparative Politics, and it was proposed to have this instead of the special subjects.

The Rev. W. C. Penn seconded.

Mr. F. E. Corley suggested that his amendment was not of a substantial character and might be considered first. The amendment was to the effect that the change should take effect as from the B. A. Degree Examination for 1918.

Mr. Macphail accepted the amendment and the resolution as amended was carried.

B. A. HONOURS COURSE.

The next resolution was a proposal simply to change the name of the examination from "History and Economics" to "History, Economics and Politics," Politics forming such an important part of it.

This was seconded by Mr. H. J. Allen and carried.

Mr. Macphail then moved certain changes in the subjects, a proposal which, he said, had not come up from the Board of Studies unanimously. Ever since the Honours Course had come into existence some of them felt that certain changes were necessary. It was proposed to leave the number of subjects the same as before, but the study of Indian History was introduced. The following two are the proposed new curriculum:—

(a) Each of the following subjects:—(1) The History of India. (2) Constitutional History of Great Britain and Ireland. (3) Politics. (4) Economics.

(b) Two of the following subjects:—(1) Economic History—a special subject. (2) Politics—a special subject. (3) History—a special subject.

(4) History—a special subject. (5) Indian History—a special subject.

The Hon'ble Mr. S. Srinivasalingar seconded the resolution.

Mr. K. Ramanuja Chariar, while thanking the Board for including Indian History as compulsory, said that the whole scheme was open to the objection, among others, that in this course there was no provision made for European History and the study of Political Science without a knowledge of European History would be attended with some difficulty. The matter required deeper consideration and he, therefore, moved that it be referred back to the Board of Studies.

Mr. Yakub Hassan seconded the amendment.

Mr. Macphail pointed out that as the matter had already been fully discussed by the Board of Studies no useful purpose would be served by referring it back.

Mr. K. V. Rangaswamy Iyengar complained that the subject was rushed through at the meeting of the Board of Studies.

The Rev. Father Carte said that the proposal destroyed the very *raison d'être* of the Honours Course. It was assumed that the Honours Course was as extensive as the Pass Course. An advanced Course embraced not merely a statement of facts and theories but a description of them.

The Hon'ble Mr. V. S. Srinivasa Sastri said it was better not to decide to refer the matter back to the Board of Studies. It was a retrograde move to reduce the number of optional subjects in the highest Honours Course.

Mr. Macphail pointed out that the impression conveyed that the question had been rushed through by the Board of Studies was an erroneous one. It was fully discussed and he did not think any other result would be obtained by referring it back.

Mr. F. E. Corley demurred altogether to the argument that the Honours Course should have

entirely different subjects from the Pass Courses. The standard of knowledge expected, however, was different.

Mr. S. Krishnasawmy Iyengar gave the Senate an idea of what happened at the meeting of the Board of Studies. The subject was discussed for a long time and the only feasible course was adopted, and a compromise brought about. The proposal to refer it back would only result in the same resolution which the Board of Studies arrived at after a good deal of discussion.

After some further discussion the proposal to refer it back to the Board of Studies was put to the Senate and lost.

Mr. C. Ramalinga Reddy withdrew the amendment of which he had given notice, while Mr. Corley's amendment was accepted by Mr. Macphail, in that the change should take effect from 1919.

Mr. K. V. Rangaswamy Iyengar spoke on the substantive resolution at great length. He complained that no proper opportunity was given to discuss the subject. The proposal was objectionable on principle as it deteriorated the standard of education.

Mr. Macphail's motion, as amended was then put to the meeting and carried.

Certain changes in the time-table of a consequential nature were then adopted.

THE M. A. DEGREE.

Mr. Macphail moved certain alterations in the Regulations which had for their object the exemption from production of attendance certificates by students who took up the Honours Course and wished afterwards to appear for the M. A. degree without Honours. He pointed out that at present graduates desirous of qualifying for the M. A. were required to pass the B. A. Honours degree and moved another alteration which removed the necessity of compelling such Honours graduates to appear for the preliminary examination in English before going up for the rest of the M. A. degree examination.

These were all agreed to.

Mr. Macphail then moved for the addition of a provision which would enable graduates who had taken up the M. A. degree with or without Honours to appear again for another Branch of the M. A. Degree with or without Honours provided they produced a certificate of attendance for two years at a college. The object was to encourage candidates to take up other subjects.

The resolution was duly seconded, whereupon Mr. Ramalinga Reddy moved his amendment, which aimed at doing away with the two years' attendance. In order to enable students to pursue their studies independently it would be advantageous to let them go on for other subjects without further attendance.

Mr. G. A. Natesan pointed out that a candidate might after passing the M. A. degree take up some profession and it would be unreasonable to ask him to go and join a college again if he wished to qualify in further subjects.

Mr. R. Littlehales said that so far as Mathematics and Physics were concerned no candidate would be qualified to go further without a practical training in a laboratory for two years. Far too much attention was paid in the Senate to literary courses and not to practical courses.

Mr. Mark Hunter suggested that the matter be sent back to the Syndicate.

Mr. Macphail said that he had no objection to its going back if it was so desired, and Mr. Hunter's motion to refer it back, being seconded by Mr. Hanumantha Rao, was carried.

THE B. L. DEGREE.

Mr. K. Ramunni Menon moved a resolution:—That no candidate shall be eligible for the degree of Bachelor of Laws unless he has taken the degree of Bachelor of Arts in the Madras University, or a degree in some other University accepted by the Syndicate as equivalent thereto, and has also passed three examinations in Law.

This was seconded by Mr. Stone and carried.

BOWEN MEMORIAL SCHOLARSHIP.

Mr. W. H. James moved the following:—

The Syndicate recommends that the terms of award of the Bowen Memorial Scholarship, which is awarded to a student in Engineering, be amended by altering the period for which the scholarship is tenable from three years to four years in view of the fact that the course for the B. E. degree has under the revised Regulations been lengthened from three to four years.

This was seconded by Mr. Hanumantha Rao and carried.

UNIVERSITY LECTURES.

The Rev. Dr. Skinner moved for sanction the list of Ordinary University Lectures proposed to be delivered during the academic year 1916-17.

The Rev. Father Bertram and other mofussil Professors wished to know on what principle the Syndicate wished to restrict these lectures to Madras, deliberately shutting out the mofussil Colleges. The Vice-Chancellor was asked to give an undertaking that the lectures would be permitted to be delivered in the mofussil Colleges also.

The Vice-Chancellor promised that the question of the mofussil Colleges would be considered again, and the resolution was then put to the Senate and carried.

MEDICAL DEGREES.

Major A. Miller, I.M.S., proposed certain alterations in the Regulations for the examinations for Medical degrees. The first was to include "Medicine" in Branch II. Midwifery for candidates appearing for the M.B. degree. Other alterations with regard to the dates of examinations, payment of fees, and the inclusion, under instructions from the Government of India, of Tropical Diseases were also moved by Major Miller.

These were seconded by the Hon'ble Dr. Nair and carried and the meeting was adjourned to the third Friday in July.

ALLAHABAD UNIVERSITY.

COMPULSORY VERNACULAR STUDY.

An ordinary meeting of the Senate of the Allahabad University was held on Friday, the 10th inst., at 4-30 p. m. in the Senate Hall, the Hon. Dr. Sunder Lal, Vice-Chancellor, presiding. There was a good attendance of members.

After the minutes of the annual meeting of the Senate held on the 3rd Dec. were confirmed, the Senate considered applications under section 19 of the Universities Act of 1904, for permission to appear at the University examinations of 1916.

The Senate accepted the recommendation sanctioning the affiliations of the following colleges:—

1. St. Andrew's College, Gorakhpur, up to the B. A. Standard in English, History, Sanskrit, Persian and Philosophy, with effect from July 1916;

2. the extension of affiliation of Central Hindu College, Benares, for two years in Biology up to the Intermediate Standard, with effect from July, 1916;

3. permanent affiliation of the Agra College in Zoology up to the M. Sc. Standard, with effect from July, 1915;

4. St. John's College, Agra—
(a) up to the B. Sc. Standard in Physics, Chemistry, Zoology and Botany for one year more, and

(b) up to the M.Sc. Standard in Mathematics, with effect from July, 1916;

5. the extension of affiliation up to the 1st May, 1916, of the M. A. O. College, Aligarh, in Chemistry up to the M. Sc. Standard, with effect from the 1st May, 1916.

The extension of the affiliation of the Kayastha Pathshala up to the B. A. standard was also sanctioned but the managing body of the college was asked to submit a statement giving, among other details, the actual income of the college and the forecast of income and expenditure for the next five years.

Reports on the following two proposals of Dr. Zia-ud-din Ahmad were recorded:—

1. The marks obtained by a candidate in each subject in any examination may be communicated to him, through the heads of institutions or Inspectors of Schools, on payment of a fee of Rs. 2.

2. The Syndicate may be requested, if possible, to expedite the publication of the University results, either by publishing the results of various examinations by compartments, or by appointing separate committees for bringing out the results of different examinations.

Mr. J. Murray moved some alterations in Regulation 3 (a) (1), ch. XII, relating to the Senior Cambridge Local and Senior Oxford Local examinations. Mirza Samiullah Beg and Rai Bahadur G. N. Chakravarti opposed the resolution. The proposal was carried by a majority of votes.

The most important proposal that came up for discussion was that of Dr. Ganganatha Jha on the introduction of compulsory education in vernacular for Indian students who go up for the Matriculation examination.

Dr. Jha's proposition ran as follows:—

That section 4, chapter XIII of the regulations, be amended to read as follows:—

'At the Matriculation examination a candidate shall present himself for examination in five subjects, as follows:—(1) English, (2) History and Geography, (3) Mathematics, (4) An Indian vernacular or a modern European language, (5) and one of the following:—(a) a Classical language, (b) Physics and Chemistry, (c) Drawing, (d) Agriculture with Surveying.'

In moving it, Dr. Jha made a short speech in course of which he said that it was not for the first time that a proposal of that nature had come up for discussion before that University. The University had appointed a committee to go through the question and that committee had made certain recommendations which were considered and accepted by the Syndicate in December

last. In the interval however on the report of the Special Inspector of Arabic, the Faculty of Arts had appointed a committee of their own. That report was practically of the same nature as that of the previous one.

Rai Bahadur G. N. Chakravarti seconded the motion.

Professor Ward who opposed the proposition said that before deciding to make a change it would be well to consider who would be affected by it. Out of a total of 4,595 candidates who went up for Matriculation Examination, 3,348 did take up some Indian vernacular and only 1,247 did not. And out of those 1,247, 200 took Science and Agriculture, 350 Science and Drawing and the remaining 700 took some classical language or some other vernacular combination. It was only 25% of the candidates who for some reason or another did not go in for vernacular. There was no reason why those 25 percent. should not be left free to make their own selection. If Dr. Jha's proposal were passed it would be very hard on those students who wanted to study Science or Medicine or Biology and did not find vernacular as a necessary or helpful subject to be taken up. Then again they were not certain what that compulsory Indian vernacular was going to be. Would it be the language spoken by the people of these provinces? Would it be Hindi or Urdu or Tamil or Telugu or Bengali? It was far more valuable for a student that he should study Science than any Indian vernacular. It was said that candidates who served the Government were often found wanting in the knowledge of vernacular. If it was so, it was for the Government to demand a higher knowledge of vernacular from those who went into Government services. The Government might even force them to study it but there was no reason why the University should compel its students to study vernaculars. The Cambridge University had behaved very badly because they had closed their door to all those who had no knowledge of Greek. If a boy wanted to become

an engineer it would be good for him to take up Drawing or Science at an early age. The proposal before the Senate, if passed, would prevent him from doing so. There was no reason why they should alter the regulations. If an overwhelming majority already studied vernaculars why worry about a small percentage who took up a classical language?

Syed Karamat Husain said that he heartily supported Mr. Ward. A certain amount of knowledge of English was necessary for a student who went up for the Matriculation examination. The knowledge of English possessed by an ordinary Matriculate was generally far from satisfactory. The chief reason was that most of the candidates scraped through merely by cramming. Moreover, the students were already groaning under the stress of so many subjects and it would be highly undesirable to put any additional burden on their shoulders. The speaker went on to say that the expression 'Vernacular' was a very indeterminate one. It might be Hindi or Urdu or Bengali or any other language. One of the effects of the compulsory introduction of vernacular would be that the controversy that had been raging round the Hindi-Urdu question would be accentuated. Another point to be considered was that of the market value of a language. Those who had to deal with examinations in Persian or Arabic knew that those languages had no value in the market. The mere fact that they were recognised and encouraged by the University would not mean much.

Dr. Tej Bahadur Sapru supported the proposal and replying to the objections raised by the two previous speakers said that there was no force in Mr. Ward's objection as to which of the several Indian vernaculars would be taken up by students. The Allahabad University catered merely for people residing in the United and Central Provinces and Rajputana. It should not be very difficult to find out what percentage of the total number of candidates who took up Indian vernaculars for their Matric. examination took Telugu or Tamil.

Any apprehension on that ground did not seem to be real. Dr. Ward had laid great stress on the study of Science but the University had not so far made it a compulsory subject. If it was intended that every student must take science it would be well to invite the Senate to do so. But so long as it was not done there was no reason why education in Indian vernaculars should be discouraged. Professor Ward.—I don't want to discourage anybody at all. I had said that if you made a Science student take a vernacular you make Science teaching less effective.

Dr. Sapru, continuing, said that if a Science student studied vernacular it would be all the better for him. It was a pitiable sight to see a young man turned out of a University proficient in all kinds of subjects but not knowing his own mother-tongue. It was said that the introduction of vernacular would mean an additional burden on the students, but as long as the total number of subjects remained the same the speaker did not understand how it could be so. There was absolutely no ground for any fear about Hindi-Urdu controversy. Every student was asked to take up either Hindi or Urdu whichever he liked. It had been so from the time the University had come into existence. There was no controversy on that point in the past. No attempt was made to oust Hindi or Urdu. On the other hand, students were left perfectly free to choose for themselves. In conclusion Dr. Sapru said that it was more important that a man should know his own language rather than have a knowledge of English.

Mirza Samiullah Beg said he was in favour of the proposal because he found that many of the students who had passed the Matriculation examination did not know their own language well enough. There could be no difficulty as to the Hindi-Urdu question either if the proposal were passed by the Senate for both the languages had been taught side by side in the past without giving rise to any trouble.

Mr. R. Burn also spoke in favour of the propo-

sal and said that the products of the University were tending to lose the knowledge of their mother-tongue. Its alumni were going forth with less and less knowledge of their own vernacular. Mr. Ward had said that three-fourths of the total number already took up vernacular as their optional subjects. But in English, which was a compulsory subject, out of 4,959 candidates 4,950 had out of their own free choice taken up translation and only 9 took up English composition instead. The reverse of the operation, of translation from English into vernacular, should also be necessary. Mr. Karamat Husain had tried to arouse a doubt in the minds of the members of the Senate by saying that the making of vernacular a compulsory subject for examination would raise up the Hindi-Urdu controversy. Urdu and Hindi were already recognised for the Matriculation examination and if Dr. Jha's proposal was accepted there would be nothing new to raise that controversy over again. Mr. Ward had drawn a highly coloured picture of Telugu-Tamil and other languages being taken up as vernacular. If they went into the figures they would find that out of a total of 4,959, 3,840 were taking Hindi and Urdu and 950 Marathi. This meant that a very large percentage were already taking up languages of the United and Central Provinces and only a very small percentage were taking up other languages. It had also been mentioned that the change in the regulations as proposed would affect the students anxious to possess a greater knowledge of Science or Mathematics but the speaker felt convinced that the only way in which boys could get a better knowledge of the subjects they were taught was through their own mother-tongue.

Prof. Ward.—That I am sure is absolutely wrong. (Cries of order, order.)

Mr. A. H. Mackenzie who spoke in favour of the proposal said that there was no force in the argument of Syed Karamat Husain that the introduction of compulsory vernacular would affect the knowledge of English for they had compulsory vernacular

for the S. L. C. examination for the last six years and the knowledge of students far from declining had improved by it. Mr. Mackenzie also quoted Macaulay to prove that the aim of English education should be to raise up a class of Indians who would enrich their own vernaculars. Last year when a rule was introduced by which vernacular was to be the medium of instruction in Anglo-vernacular schools it was found that many teachers had not sufficient command of the vernacular to be able to teach.

Rai Gokul Prasad Bahadur remarked that no sufficient reason had been given why the introduction of vernacular as a compulsory subject was necessary. Dr. Sapru had said that because the students possessed a defective knowledge of their vernacular such a step was necessary. But what was the mother-tongue of the people of these provinces? Was it the kind of Hindi or Urdu that was published in the newspapers? The speaker observed that it was not so. A sufficient number was already studying the vernaculars. If they had got the same result without making any change in the regulation that in itself was an argument against the proposal.

Dr. Ganganatha Jha in replying to the several points raised by the speakers said no combination of a classical language with science, as contended by Mr. Ward, was allowed for the Intermediate examination and the combination of science and drawing was not a compulsory combination but only an optional one. Those who opposed the motion and did not see any reason to support it would do well to answer the question whether an Englishman would be considered fit if he could not write a decent letter in English. Yet such was the case with a large number of Indian students. Referring to Syed Karamat Husain's remark about the Hindi-Urdu controversy, Dr. Jha said that there was absolutely no reason to introduce that bugbear into the discussion. They had both Hindi and Urdu for a long time and there was no necessity to raise that unhealthy

point at that meeting of the Senate. If the proposal was accepted by the Senate hardly any Indian student would choose a modern European language in preference to an Indian vernacular. And some people did not quite understand what was meant by vernacular. Vernacular was not the language spoken at the nursery but that polished language which was spoken by educated men in their conversation. It had been urged that if it was felt necessary that teachers should possess a better knowledge of their own mother-tongue, the teachers' training schools and colleges should lay stress on it. But a man at 25 years of age was not fit to begin to be trained in a language. It had also been asked—how it could be expected from a boy of 14 or 15 years of age to select his own course. But they had come to an age when a boy of 10 or 11 was also required to make a selection of subjects.

When the resolution was put to the vote it was found that there were 25 votes on each side. On a poll being demanded by Prof. Ward it was defeated by a majority of 9 votes, 22 having voted in favour and 31 against it.

The other three proposals of Dr. Ganganatha Jha which were moved but subsequently withdrawn ran as follows:—

That section 6, Chapter XIV, be amended to read as follows:—

'Every candidate shall be examined in—

I. English.

II. An Indian Vernacular, or for candidates (whose mother-tongue is English) a modern European language—

III. (I) (a) A Classical Language, etc., etc., (as it stands at present).'

II.

That section 4, Chapter XV, be amended to read as follows:—

'Every candidate for the B. A. degree shall be required to show a competent knowledge of—

(1) English,

(2) An Indian Vernacular, or (for candidates whose mother-tongue is English, a modern European language—

Translation and Composition.

(3) Any two of the following, etc., etc., (as it stands at present.)

III.

That section (3), Chapter XVIII, be amended to read as follows:—

'At the examination for the degree of Bachelor of Science every candidate shall be examined in—

1. English.

(2) An Indian Vernacular, or (for candidates whose mother-tongue is English) a modern European language.—

Translation and Composition.

And in any one of the following groups—

(A) etc., etc.,

(as it stands at present).'

Nawab Haji Mohammad Ismail Khan then rose to move the following proposals but they were ruled out of order by the Vice-Chancellor:—

1. The Allahabad University should allow some papers to print a list of Examiners (as in the Calcutta University.)

2. A candidate on paying a small fee may have his papers scrutinised to ascertain whether no mistake has been made in totalling the marks. If a candidate fails in one subject, his papers should be re-examined in that subject by the original or another examiner (as in the Calcutta University).

3. The Allahabad University may kindly take the Mulla and Mulla Fazil Examinations in its own hand.

4. If a candidate has taken the M.A. degree in any subject, and he wishes to take the M.A. degree in another subject, he should not be asked to attend the M.A. class, but should be allowed to appear as a private candidate.

5. If a candidate has failed in one or more subjects in any examinations, he should be examined in the next succeeding year in that or those subjects only.

Mirza Samiullah Beg's two proposals that students studying at unrecognized schools be allowed to appear as private candidates for the Matriculation examination were opposed by Messrs. de la Fosse and Chakravarti and finally lost.

The proposal, to assign Qazi Aziz-ud-din Ahmad to the faculty of law also, was not accepted.

The meeting terminated at 7-25 P.M.

FEMALE EDUCATION IN INDIA.

Government Circular

TO PROVINCIAL GOVERNMENTS.

The following circular letter has been addressed by the Government of India to various Provincial Governments:—

Dated the 22nd February 1916.

SIR,

I am desired to address you as follows on the subject of female education in this country:

SMALL PROGRESS HITHERTO.

The education of females in India is recognised in spite of the attention hitherto paid to it, to be in a comparatively backward state. The Education Commission of 1882, while making a number of definite recommendations for the improvement of female education, represented that the difficulties in the way of progress could not be solved except by a growth of public opinion. Certain further suggestions for the encouragement of female education were made by the Government of India in paragraph 27 of their resolution No. 199-21 dated the 11th March 1904, and the degree of advancement achieved is described in some detail in the Quinquennial Reviews of the progress of education in India for 1902-1907 and 1907-1912. But in their further resolution No.

301. C. D. dated the 21st February 1913 the Government of India while commending certain principles for general consideration, were compelled to acknowledge that the education of girls in this country still remained to be organised.

ENQUIRIES OF 1911 AND 1913.

2. As noted by the Government of India in their resolution of 1913 the Local Governments had already been asked to submit schemes for the improvement of female education in each province. They had been requested in this Department Circular No. 914-922 dated the 1st July 1911, to submit schemes which should take the form of a 10 years programme for (1) the expansion of girls' education by means of the allocation of funds, (2) the improvement of facilities for the training of mistresses, and (3) the amelioration of the conditions of service in the case of mistress and members of the inspecting staff. But before the replies to the above circular had been received from more than a few of the Local Governments, a further enquiry had been made in this Department circular dated the 9th May 1913, asking for the submission of a 3 years' programme of expenditure on educational requirements generally and the previous enquiry of 1911 became absorbed in the subsequent investigation. The Local Governments in reply to the circular of 1913 intimated that they were ready to undertake very considerable expenditure on female education during the year 1913-14 to 1915-16, but their proposals were not accompanied by any detailed report of the method in which the improvements aimed at would be attained; and the Government of India are not in full possession of information regarding the progress actually made during the 3 years in question.

DEPUTATION OF OCTOBER 1915 TO THE SECRETARY OF STATE.

3. In the meantime a memorial was presented to the Secretary of State on the 12th October

1915 by a deputation introduced by Mrs. Henry Fawcett which asked that a committee might be appointed to inquire into the whole subject in India. In reply to the deputation, the Secretary of State, while expressing sympathy with the objects aimed at, stated that he considered the present time inopportune for the appointment of a committee and he has since forwarded the memorial to the Government of India without making any recommendation on it. A copy of the Secretary of State's Despatch No. 191, dated the 5th November 1915, together with its enclosures is forwarded with this letter and from the enclosures of the Despatch it will be seen in what terms the deputation presented its memorial and in what terms the Secretary of State made his reply. A copy is also enclosed of a memorial presented to His Excellency the Viceroy by a meeting of ladies in Bombay held on the 31st December 1915.

REASONS FOR EARLY RECONSIDERATION.

4. The Government of India agree in the view that, apart from other possible objections, the present conditions render it out of the question to appoint at any rate at this stage, a committee such as has been proposed to the Secretary of State. But they consider that the present opportunity may well be taken for a reconsideration of the whole question of female education in India. The time would appear to have come for taking such forward action as is possible in the matter. Apart from the general reasons for the increasing demand for female education, it may be observed that where the joint family system has hitherto prevailed in India it is now breaking up. Families composed of only the father and the mother and their children are becoming more common. Girls and young women are therefore becoming the heads of families without being able to rely as in former days, upon the advice and care of older relations and the duty of bringing up the children devolves upon them. The health and physical efficiency of the latter is a national

concern and it cannot be secured without the education of mothers and their co-operation. For the same reason, namely, the breaking of the joint-family system widows have not now the care and protection which that system secured them and their opportunities of social service, confined though these may have been to the circle of their own and related families, have to a large extent disappeared. It is also necessary that women should receive some appropriate education in this period of transition when the old system is passing away, which though it enforced their subordination, secured them a certain degree of protection and comfort.

INFORMATION REQUIRED AS TO ACTION SINCE 1ST APRIL 1913.

There is at the same time a general feeling that the present curricula whether suited or not for the needs of boys are as a rule unfitted for girls and it is necessary to reconsider the nature of the education which should be imparted to girls.

5. The Government of India are therefore anxious to resume the consideration of the general question of female education and would be glad of the assistance of Local Governments to enable them to take stock of the present position in the matter and to focus the opinions of competent persons on the main questions at issue.

They would be glad in the first instance, if Local Governments would submit a brief report to show what has been done for the improvement of female education since the 1st April 1913, the date from which the schemes, prepared in compliance with the Government of India's circular of the 9th May 1913, took their start. The Secretary of State in his reply to the deputation of October 1915 has pointed out that comparatively little can be learnt from the statistics at this moment and in any case statistics on the subject are already at the disposal of the Government of India, but the Government of India are

desirous that the statistical information available should be supplemented by brief reports showing what definite steps of importance have been inaugurated in each province since the 1st April 1913 in respect of (1) the increase of facilities for female education, changes in character of such education given and the financing and control of such education in primary institutions, (2) the same points with regard to higher institutions, (3) the training of teachers, and (4) the inspection of schools.

OPINIONS ASKED FOR.

6. The Government of India are also anxious to obtain the views of Local Governments regarding the class of action now to be taken and they would be glad if, after obtaining the opinion of competent persons on the questions involved, the Local Governments would send it to the Government of India with an expression of their own views. It is suggested that the opinions of Inspectresses, of Indian lady graduates and of selected local bodies which are directly engaged in the management of schools for females would be found of special value especially if the remarks made by the persons or bodies consulted are confined to the localities of which they have personal experience and to the questions which they can answer from their own knowledge or from materials at their disposal. In the case of local bodies it is thought that the value of the replies given will be enhanced if these bodies have before them a conspectus of the existing state of female education in the areas under their control and an attempt has been made in enclosure III. of this circular to indicate certain points on some or all of which local bodies may suitably provide themselves with data before reporting on the subject dealt with in this circular. It is further suggested that when there is a standing committee on female education such as has been already constituted in several provinces the opinion of this committee should also be obtained.

HEADS UNDER WHICH OPINIONS SHOULD BE CLASSIFIED.

7. It will be convenient if the Local Governments in forwarding opinions would tabulate briefly the results obtained, and will also supply their own views together with their suggestions for securing progress in the immediate future, under the four following heads, viz., (1) the primary education of females, (2) secondary and higher education of females, (3) teachers for females, and (4) inspection of female education. I am to add briefly a few remarks on some points to which the Government of India, as at present advised, would desire to invite attention of Local Governments in connection with each of the above subjects.

CONTROL OF FEMALE PRIMARY EDUCATION.

8. Primary Education:—It may be urged that whatever may be the correctness of the view put forward by the Decentralization Commission, that the control of primary education generally should rest for the most part in the hands of local bodies, this view may be accepted as ordinarily suitable for application to female primary education, because such education must in a special sense be adapted to the needs of the people and cannot make progress without their active sympathy and support. The Government of India would be glad to know how far a policy of this kind commends itself and to what extent the control of local bodies should be supplemented or replaced by that of special educational committees and for what areas such special committees can suitably be framed.

CLASS OF SCHOOL HOW FAR TO BE DETERMINED LOCALLY.

9. From the position that female education should rest mainly under the control of local bodies, it would follow that in schools which are confined to reading, writing and arithmetic, the question of admitting boys to girls' schools and vice versa is one which might most suitably be left for local

decision; it being remembered that if boys are admitted in the girls' schools it may be necessary to fix a maximum number of boys in view of the possibility of girls being gradually made at such schools to give place to boys. It might also in this connection be considered whether with a view to increasing the number of girl pupils in the lower grade a larger use might be made of the practice which prevails in some provinces of offering enhanced capitation grants for girls who study in boys' schools. Similarly, if control is left to local bodies it would be for those bodies to decide how far there should be caste or class schools in the areas controlled by them. It is possible that in some places the admission of a non-caste Hindu might empty the school and it is not unlikely that the superior degree of education attained by women in certain Native States is, as some contend, due to the fact that in such States non-caste Hindus are not admitted into schools. There may, on the other hand, be other places where schools might be open to various classes, but in such case it would be necessary to see that local bodies do not turn their attention to the caste schools only to the exclusion of schools for the other classes of Hindus or for non-Hindus. In the schools which are opened solely for non-caste Hindus, there may be no objection to the admission of caste Hindus, but even in such cases, conditions might have to be imposed to prevent the school from becoming exclusively one for caste Hindus.

10. It may, in the same way, be argued that it is advisable to leave as far as possible the determination of the curriculum to local bodies. There is little doubt that public opinion requires that Indian girls should learn arithmetic and should learn to read and write their own vernaculars; but the question whether subjects other than above should be taught might on this principle be left for the decision of local bodies whose sympathy and active co-operation is necessary to ensure any substantial progress. It would in

this case appear inadvisable for the Education Department to insist on any prescribed standard course and the duty of the Department would be confined to putting forward groups of subjects for adoption by local bodies—leaving it to these bodies to select the form of curriculum which seems suitable, with or without modification of the suggestions of the Department. The main object of Government being to encourage any kind of education for girls which is in itself useful, it may be held inadvisable at the present stage to place restrictions on the adoption of any curriculum which will satisfy this requirement.

CONTROL AND CURRICULA OF SECONDARY SCHOOLS.

11. Secondary and higher education:—It will have to be considered whether the principles to be followed in respect of the control of elementary female education should be considered applicable also so that of the secondary education of females and if difficulty is felt in respect of the control of such education by local bodies, report should be made by Local Governments as to the manner in which they would distinguish schools suitable for such control from others. Attention should also be directed to the question whether such separate committee, as may be appointed for the supervision of primary education should as a rule be entrusted with the supervision of secondary schools, or whether these should be entrusted to separate committees.

As regards the form of curriculum selected for such schools attention may be invited to the considerations urged in favour of leaving the selection largely to local control, such selection being allowed to rest either with the local bodies concerned or with local committees especially appointed for the purpose. The varieties in suitable curricula for such forms of education are as great as in primary education. There is for instance in many places a general desire for religious education and for education in music. It is also generally felt that women

should be educated in all that concerns enlightened mothering, a good standard of maternal physique, better care of infancy, appropriate feeding care and management of children, effective attention to children's diseases and generally their physical condition, good sanitary environment and other matters of domestic concern. Many again think that the girls should also receive English education. The nature of education to be imparted in the same subjects may also vary. Some girls will need an education preparatory to college life, others may only desire to be serviceable in their own homes; while others, again, may wish to make themselves useful to the community. So too, it might be necessary to proceed with great caution in dealing with certain classes or in some localities. A system to be adopted for instance, among those who view education with disfavour as tending to female emancipation or disregard of *purda* might involve courses of study and require a teaching and inspecting staff quite different from others. The same remarks will apply where caste or class feeling has to be respected. As in the case of primary female education no uniformity of standard seems possible and the courses of study may suitably consist various syllabuses so arranged as to suit the needs as the people understand them of the various classes or localities. Unless the curriculum is in consonance with the feelings of the people chiefly concerned the girls will be withdrawn from the schools. Some of the Local Governments have already recognised that the lack of real progress within their areas is not due to any real deficiency in funds or in the number of schools or even to the want of teachers, but that the real obstacle is to be found in the attitude of the people, with the result that there is a waste of public funds and many of the existing schools serve no useful purpose. It is not improbable that the nature of the school curricula and the unsuitability of the teaching hitherto imparted might account a good

deal for the reluctance of the parents to secure for their girls even such facilities for education as are now available. The main function of the Department of Education would in pursuance of the above considerations be to stimulate the efforts of local bodies and to render assistance by proposing various courses of studies rather than to assume direct control or to insist on any uniformity of subjects in the curricula.

HIGHER EDUCATION OF WOMEN.

12. With respect to the higher education of women who have received their training under the system above described, it may be observed that women who have received religious education presumably in the classical language may desire the collegiate instruction in the same subjects, while those who are trained in sanitary and allied subjects may desire to join medical colleges if they have received a general education. For the present the number who wish to receive any higher or collegiate education must necessarily be confined to those who have received a secondary education under the existing system and where these are unable to prosecute their studies but are not sufficient in number to justify the opening of a new high school or college, it may be possible to meet their requirements by awarding them scholarships for further studies in the existing institutions for women or in colleges for boys if they have no objection to join them. All that can be done in the existing circumstances is to provide more facilities for admission into the existing high schools and colleges, and if funds are available and the demand justifies such a step to open more high schools for girls and college classes in girls' high schools.

TRAINING OF TEACHERS.

13. Teachers.—The Government of India will be glad to learn whether if the facilities at present open for training female teachers and the conditions of training are the same as in the case of males, the continuance of this state of

things is considered advisable and if not what change is recommended. In any case, it must be recognised that the supply of trained teachers is at the present moment exceedingly small and that although early steps may be taken to increase the supply of trained teachers it will be impossible to expect progress to be made if nothing is done until the requisite number of trained teachers is supplied. It will be necessary to see how arrangements are to be made in order to get the best out of untrained teachers at present available. While it would be difficult to get teachers—even untrained—in other subjects, it is possible that untrained teachers of the vernacular or classical languages or of music may be found in many parts of the country; and it has been urged that the present difficulties should be met by a system of itinerant instructors for such teachers or by allowing such teachers to attend for limited periods or during holidays at the existing training schools.

POSSIBLE DIVISION OF WORK OF INSPECTION.

14. *Inspection.*—The inspection of female institutions is of course desirable in order to secure efficiency and to prevent waste of public money. In many cases also such inspection will be welcome by the schools as tending to raise their character and many who are engaged in female education and feel that they are fighting an uphill battle will find it helpful to discuss their troubles with an Inspector who understands them and will give them a sympathetic hearing. At the same time there are special

difficulties connected with the inspection of female schools and in some cases social customs might stand in the way of proper inspection. It has been suggested that these difficulties might in some cases be met by dividing the duties ordinarily entrusted to Inspectors. The administrative duties connected with the healthiness and character of the buildings, the sufficiency of accommodation, furniture and necessary apparatus, the suitability of fees and the reputation of the school in the locality would under this system be entrusted to one class of Inspectors, who would ordinarily be men. The inspection of the curricula and the actual teaching would however rest with Inspectresses, and as regards qualifications for the task it would ordinarily be expected that an Inspectress should be able to take the classes herself and to this extent to act the part of an itinerant training teacher.

OPINIONS NOT TO BE CONFINED TO ABOVE POINTS.

15. The remarks made in paragraphs 8 to 14 above are merely intended to bring to the notice of Local Governments certain considerations relating to a few isolated matters connected with female education, and it is not suggested that in sending the opinions asked for in paragraph 7 Local Governments should confine themselves to the points raised in the paragraphs in question.

16. In conclusion I am to request that a reply to this circular may be sent by the 1st September next.

E. MACLAGAN,

Secretary to Government of India.

SOCIAL LEGISLATION UNDER HINDU GOVERNMENTS

BY

PROF. S. KRISHNASWAMI AIYANGAR, M.A.

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THE VALUE OF ENGLISH FOR INDIAN LITERATURES.*

I.

PROF. T. G. TUCKER writes in his "*Foreign Debt of English Literature*": "Nations can no more be independent in the art of literature than in the other arts. To be independent, to be unaffected by others' genius inaccessible to others' ideas, would be to render our literature as stagnant and as grotesque as the paintings of China or of old Japan. It is a condition of progress in Literature as in Science that new inspiration must be continually sought, new conceptions assimilated. One vein is soon worked out; another must be opened. True art is of all the world and a nation does best in art when it corrects its own particular ideas, without meanwhile surrendering itself to a servile

* A paper read before the English Association, Madras, on the 17th March 1916, by Principal P. Seshadri, M.A., of Salem, with Prof. Mark Hunter, M.A., in the chair.

XXII

imitation of that for which its genius is naturally unfit." It is an appreciation of the principle underlying this observation of Prof. Tucker's that has prompted a consideration of the subject of this evening, "The Value of English for Indian Literatures."

The languages of India have not had any occasion till their recent contact with English to be subjected to any deep or lasting influences from literatures outside their country. It is true Orientalists have discovered traces of Iranian influence in early Vedic literature and the doubtful theory has also been put forward that Sanskrit drama was indebted in some respects to the dramatic masterpieces of Greece as a result of the facilities created by the Hellenic invasion of India by Alexander. The borrowing of a few mythological conceptions in the dim beginnings of History is after all of very little importance in the development of the real literature of any language. And the theory of Greek influence on Indian drama is being gradually undermined by a

closer investigation of the subject, none of the more striking features of the Greek drama having found any imitation in Sanskrit. As has been pointed out by more than one recent student of the question, by Mr. Vincent Smith in his *History of Ancient India*, by Prof. Macdonnell in his *History of Sanskrit Literature* and Dr. Horowitz in his *Indian Theatre*, it is extremely improbable that the temporary Greek occupation of a corner of India, which closed with the rapidity with which it began, could have resulted in any such lasting literary effects. The Augustan age of Sanskrit literature also came and passed away without enjoying any opportunities for such contact. During the times of Moghul domination there was some influence exercised by the literature of Persia. In the literatures of Upper India at least, it is possible to hear an occasional echo of the music of the Land of the Bulbul and the Rose or catch the reflections of some Sufi philosopher of that clime.

Opportunities for more intimate contact and more effective influence were not furnished by any of the early European settlers in India. They were people without any pretensions to literary culture and were content to look after their ledger-books and warehouses with occasional appeals to their guns and swords. Commercial entries were all the literature they knew, and the red lines of account-books were all the conventions of writing which they recognised and respected. The Portuguese, in spite of the fact that occasionally there were even distinguished men of letters like Camoens staying with them in India itself, did not make the slightest attempt to approach Indian languages, and the intellectual aristocracy of the country in their turn did not take any interest in that out-

landish tongue which was heard at a few seaports in the country and was needed only for purposes of commercial exchange or diplomatic negotiation. Even the countrymen of Moliere and Corneille were labouring under limitations similar to those to which the Portuguese were subject. The Dutch had not much of literary superiority to impress upon people with whom they came into contact. The early English settlers were like the French or the Portuguese but with the increased interest in Indian languages roused by the efforts of administrators like the much-abused Warren Hastings and the early pioneers of Oriental scholarship like Sir William Jones and John Leyden; the gradual incoming of a more intellectual class of Englishmen; the consolidation of all India under British rule and the introduction of English education into India by the wise and far-seeing statesmanship of Macaulay and Lord William Bentinck, circumstances changed facilitating the touch of English with the native languages of the land. The Indian has now taken to the study of English literature with genuine enthusiasm and the best Indian intellect of to-day is in close touch with its inspiration, even as there have been an illustrious galaxy of foreigners in the land who have sought the beauties of Indian literatures.

In the great transformation that is now taking place in the country as the result of these new forces, opportunities for expansion on the literary side are furnished by the masterpieces of the English language, even as in politics, and in society there has been a liberalising influence as the result of contact with English institutions. It is useful to examine the directions in which the literatures of India may be enriched, their weak-

nesses corrected and any tendencies towards deterioration safeguarded by the knowledge and inspiration furnished by English. Students of English literature will grasp the situation better when it is pointed out that there is a literary Renaissance in India to-day as there was in England in the Elizabethan period, the only difference being that while the two classical literatures of Greece and Rome played the main part in the latter, it is a progressive modern language which has great variety and strength to its credit that is now acting as the lever in India. The fact that all the elements that constitute the English literature of to-day are not exclusively English in their origin does not lessen its capacity for inspiration. It brings with it the assimilated wealth of other languages besides its own rich native possessions.

Traces of English influence are apparent in almost all the productions of Indian languages that have appeared since this intimate contact with the British, the peculiar feature of the present literary revival being that in almost every language of the country it is the English educated that have been the pioneers and supporters of the literary activity, recalling to our minds the distinct turn given to the Elizabethan revival in England by the University wits. It is significant that all the great names in recent Bengali literature should be those of writers who have had a very good literary education in English, some of whom have even tried with appreciable success to express themselves in English literature. It is not only that Bankim Chander Chatterjee was an alumnus of the Calcutta University—he was actually its first graduate—but his novels, even according to his own admission, were inspired by the great masters of English

literature. Madhu Sudan Dutt wrote in both the languages and used his extensive knowledge of English literature for the introduction of such new features as Blank verse into Bengali poetry. Romesh Chunder Dutt divided his affections equally between English and Indian literatures and used his knowledge of the one to enrich the other. It will be difficult to say of Sir Rabināranath Tagore himself, whether he is greater as an English or as a Bengali writer, and no student of his poetry and drama can escape noticing in them traces of Western influence.

The observation may be exemplified by references to almost every other literature in the country. An attempt is made here to indicate some of the primary directions in which this expansion and enrichment may manifest themselves, though to a little extent it may be a mere record of the progress that has been effected already in varying-degrees. It is hardly necessary to state that this implies no slight to the genius of Sanskrit or of the vernacular languages of India. It is nothing more than the mere recognition of the fact that the literary genius of no nation can profess to embrace the elements of all the nations of the world; that in the history of its evolution it could not have undergone the experiences which have fallen to the lot of all the languages of the earth; and that it can never be so versatile and so varied as not to benefit either by a knowledge of the forms and conventions of other literatures or by a communion with their spirits. An examination of the literatures of India in this light may not be particularly appealing to a complacent sense of national vanity but its usefulness cannot be denied. It is again not meant to be suggested even remotely that the world

has nothing to learn from the literatures of India or that they have not been drawn upon in the past for such progress. It is possible for instance, to present a very interesting study of the influence exercised by Indian writings on the world from the *Brihatkatha* and the *Hithopadesa* of early Sanskrit literature to the works of Sir Rabiindranath Tagore in our own times, including for instance, such striking tokens of appreciation as that of the *Upanishads* by Schopenhauer or of *Sakuntala* by Goethe :

Wouldst thou life's young blossoms and the
fruits of its decline,
And all by which the soul is pleased, enraptured,
feasted fed,
Wouldst thou the Earth and Heaven itself in
one sweet name combine,
I name thee, O Sakuntala, and all at once is
said.

Considerable misunderstanding will be avoided by the recognition of two or three circumstances peculiar to this enquiry. As Mr. Frazer points out repeatedly in his *Literary History of India*, it is not easy to generalise with regard to any of the features of the literatures of the country. The languages are so many and their characteristics are sometimes so different from one another that any general statement is likely to compel the recognition of a number of exceptions. The country is a huge museum of languages in all stages of evolution, from those that have just emerged from the state of being mere spoken dialects, to Sanskrit with its great literature and its traditions of real refinement and civilisation,—from languages that carry us to dim antiquity like Tamil, to those that stand before us in rejuvenated youth like Bengali. No one who has any conception of the vastness of the literary records of the country, indirectly suggested for instance by

Dr. Grierson's *Linguistic Survey of India* will dogmatise on the general features of the literatures of the country. The remarks must therefore be valued for the accuracy that is possible in such circumstances. As the literary conventions of the various languages of India are inspired by Sanskrit to a very much greater extent than the languages of Europe by Greek and Latin, there is in some measure a common platform furnished for this investigation. It is also necessary to remember that some of the features are the innovations of recent times due to English influences, and far from being taken as typical of the languages must be interpreted as supporting the new possibilities suggested here.

II

Matthew Arnold was drawing attention to no unreal distinction when he contrasted the 'communicable' and 'incommunicable' elements of intellectual work. Prose literature with its wider scope for the assimilation of foreign elements and new methods may first be examined. Cicero's opinion, that the prose-writer equally with the poet is born and not made, is not challenged here, nor is it meant to under-estimate the originality of genius of a Lamb or of a Stevenson.

Nothing short of the creation of a good, vigorous model of prose style, capable of communicating ideas in a lucid manner, is the primary need of the vernaculars of to-day, and a study of the more recent masters of English prose is sure to furnish the necessary inspiration. Considerable improvement has already been effected in the matter. With the writing of a large number of books meant for the masses of the people and with the introduction and spread of vernacular journalism, the languages have been dilated suffi-

ciently to serve the purposes of newspaper-writing, but there has yet to develop a literary tradition which would combine the imperishable genius of a great prose-writer with ease and simplicity of expression. Prof. Macdonnell has regretted the practical disappearance of prose in Sanskrit literature, after the close of the Vedic and Brahmana periods, but there can be no chance of its revival in a classical language, conversation or writing in which is now possible only as intellectual gymnastics on the part of Pandits. But the reform is urgently needed in the case of the vernaculars of the country, which have to be the vehicles of the great ideas that are to move the millions of the land in the years to come. The few masters of prose the vernaculars have had in the course of their history have vied with each other in the production of a heavy and cumbrous style, often Sanskritised in the extreme, and generally beyond the comprehension of even the fairly advanced students of the language without the help of lexicons and grammars. They have been quite sonorous and sometimes even musical in their effects, but they could hardly compensate for the want of clearness and simplicity in prose. The condition of prose style in the vernaculars, at least till very recently, may be compared with what English prose style should have been if it had stopped its evolution before the appearance of Dryden, and there had not been three at least of the earlier writers, Sir Philip Sydney, Ben Jonson and Cowley. There are vernacular writers after the manner of Hooker and Bacon, Browne and Milton, but the style necessary for what Lord Morley has called "the journeyman work of literature" is yet in the making by the zealous efforts of the new class of the English educated writers.

It is curious that the art of essay-writing should not have suggested itself to writers in the vernacular till their introduction to that literary form through English literature. None of them seem to have hit upon the happy luxury popularised in Europe by Montaigne of "lounging in an easy chair and tattling familiarly round a theme of general interest." They have always been for productions of epic dimensions and their conventional notions of literary propriety have never permitted the practice of any of the chief elements of essay-writing, egoism, familiarity or discursiveness. They could never descend to the level of their readers and chat to them in a spirit of intimacy or comradeship. The advocacy of a style too serious to be mere conversation but too light to be serious writing—which according to Prof. Rhys is the essence of the style of the essay,—that would only evoke a superior air of contempt on the part of a writer trained in orthodox Indian conventions, but to all those who are familiar with the developments of English literature the absence of such a literary form would only be a matter for regret.

A similar phenomenon is observed in the department of fiction. Before the introduction of English masterpieces of fiction into the country and the recent birth of a number of novels in all the languages of India on those models there were only the fable and the romance. The condition was somewhat similar to what would have existed in Europe if the art of story-telling had stopped with the *Chariclea* of Heliodorus, the *Fables* of Æsop and the *Golden Ass* of Apuleius, without even a Boccaccio who in himself represents only the faint beginnings of the European novel. The art of the novelist has however now found enthusiastic votaries and

public appreciation in the country. As the European lady must have her weekly supplies of novels from the circulating library, the Indian lady who can read must have the recent vernacular adaptations from Scott, or the new novels chronicling the sad fortunes of a Kamala or of a Lakshmi.

While the art of the novelist has thus found useful adoption in the country there is room for further expansion and enrichment. It is the distinctly romantic and sentimental types that have yet appealed to the new class of writers. Their enthusiasm is mostly for the manner of Scott; the spirit of the sentimental novelists of the eighteenth century has also inspired them but there are still the examples of a large number of masters of English fiction which have not been availed of—the kindly humanity and breadth of vision of Dickens, the poignant satire of Thackeray, the grim analysis of Hardy and the robust common-sense of Meredith. There has also to be the portrayal of the great mass of the people, the lower orders, from whom the Indian artist is apt to turn away with notions of aristocratic superiority. The use of dialectic vividness and peculiarities of slang which alone render possible the exquisite humour of a Mrs. Poyser or a Pickwick has yet to be accomplished on a wide scale. The Indian is however not entirely strange to this feature of literature as the Prakrit dialect was an invariable element of the Sanskrit drama, confined to women and characters drawn from the lower orders of society. Again, the critic's complaint with regard to some of the novels of George Eliot that a happy ending is forced on them by the touch of what looks like the wizard's magic wand, would be particularly true of almost all Indian fiction, as the weak-

ness underlying it is a uniform feature of the national consciousness in art.

It is somewhat unfortunate that certain spicy and sensational works of English fiction, not forming part of real English literature should have secured early attention in this country and resulted in the consequent creation of an unhealthy class of books in the vernaculars. The hysterical vapourings of Marie Corelli with her puerile and distorted philosophy of life, the morbid and licentious revelries of a disreputable writer who dishonours the great name of Reynolds and many a season's novel of terrible crime and ingenious detection—these have found their way into the vernaculars before the *Vicar of Wakefield* and Jane Eyre, *Mill on the Floss* and *Vanity Fair*. It is probably natural that such sensational aspects should have arrested the attention of those approaching them with a sense of novelty, earlier than deeper and more valuable ones, but they must be sternly repressed, especially as the books will be read by ladies just beginning to be educated.

Literary criticism is another department in which the study of English literature should lead to useful results. The similar orthodox Indian critic is a stickler for authority, appealing to the precept or example of the ancient writers with all the simple gravity with which English writers in the eighteenth century invoked their Horace or Aristotle. He is apt to question himself on reading a book like some over-enthusiastic disciple of Sainte Beuve, "Am I right in being pleased with this work of art?" and not "Am I pleased with this work of art?" Criticism is based not on his own individual æsthetic appreciation but on the literary canons in which he has been trained.

He will shudder at the liberty implied in the Latin saying: "De gustibus non est disputandum." It is true there have been a number of commentators of Indian masterpieces, but their work has mostly been in the direction of unalloyed admiration, expressed with a heavy apparatus of learning and marked by an anxiety to discover merits even where they do not exist, by constantly reading between the lines. There can be very little scope for the development of criticism in such circumstances and hence the need for catching the inspiration of Coleridge and Hazlitt, Matthew Arnold and Walter Pater, so that in the years to come an Indian may present a lucid analysis of the art of the great writers of this country or discuss principles of æsthetics in the abstract, if there be need. The ideal of an Indian *Biographia Literaria*, *Essays in Criticism* or *Discourses on Art* is one that must be held up to the admiration of the vernacular writers in the country.

There are numerous departments in which a beginning has yet to be made and History is probably the chief of them. It is a melancholy fact that in a country in which there has been the greatest need for historical writing, owing to its multitudinous variety of kingdoms and dynasties, it should have been conspicuous by its absence, barring a few stray specimens like Kulhana's *Rajatarangini* or the *Chronicle of the Kings of Kashmir*. It is possible that the uniform prevalence of monarchy and the absence of democratic struggles and triumphs in the cause of freedom roused no popular enthusiasm in the facts of History, and we have only glowing panegyrics by servile courtiers on the achievements of kings, their conquests represented as embracing all the cardinal points of the earth. In historical writing we are

where England was while the early chroniclers were just putting in their appearance, without even Sir Richard Baker, Lord Herbert of Cherbury and Charendon, not to dream of the majestic sweep of Gibbon, the graphic narration of Macaulay and the poetic vividness of Carlyle. Clio has yet to be wooed and won on Indian soil.

It is the same void that is felt in the department of literature relating to Science—it is hoped no apology is needed for recognising some popular scientific expositions of science as integral parts of literature, especially after the brilliant examples of Darwin, Herbert Spencer, Tyndal and Huxley. The ancient Indian tradition in the treatment of scientific subjects is to seek expression in cryptic aphorisms which could be easily carried in the memory for application as occasions may arise. The grave quotations made by the physician in Sir Rabindranath's *Post Office* is faintly typical of writings of this class. With the growing desire for the diffusion of scientific knowledge among the masses the need for popular scientific literature is becoming more pressing and a style which would give scope to combine the accurate technology of science with effective literary presentation must be brought into existence in the various vernaculars. There are no better models needed for the work than the English writers just mentioned.

Letter-writing and oratory are two literary forms whose possibilities have not yet been realised in India. This is no place to enter into an examination of the reasons underlying the absence of these two features. In the case of the former it is probably a mere accident, for there are unmistakable references to letters even in ancient Sanskrit literature. But it never rose to such dimensions

as to form a distinctive branch of literature, as is the case, for instance, in English. There are thus no parallels in the languages of India to the valuable collections of letters we have in English from Lady Mary Wortley Montague and Cowper, Gray and Shelley, Lamb and Fitzgerald, Matthew Arnold and Stevenson. The absence of representative political assemblies in a large scale probably accounts for the non-existence of oratory in Indian languages, in spite of the fact there has long been the practice of holding logical disputations amid assemblies of Pandits. There are no Chathams and Burkes whose glowing eloquence may move later generations to patriotism. The recent publication of *Famous Speeches* by Herbert Paul serves to draw attention to the undoubted value of this branch of literature. The Indian has however displayed considerable ability in the line, even in English, as may be seen from several good collections of the speeches of Indian leaders that have appeared in recent years. He does not suffer from any lack of fluency of speech and has a temperament very congenial to oratory. Dr. J. C. Bose has established the fact even by a scientific discovery—the tongue of the Indian would seem to be more susceptible to electrical impulses than that of the European and no misgiving need be entertained about the future of this branch of literature in Indian vernaculars!

III

The possibilities of expansion and assimilation are not less patent in the regions of poetry, though they are more intimately related to the national genius than prose. It should be absurd to lay down any rules to guide the coming master in an Indian vernacular who can express himself in an immortal epic, but attention may be drawn to the

principle of artistic unity which does not seem to have received adequate recognition in Indian Epic literature. Prof. Macdonnell complains about the *Mahabharata* that the mere fact that it consists of more than two hundred thousand lines is an illustration of its defective sense of proportion. But the more serious flaw is the lack of organic unity, the digressive episodes arising out of the slightest excuses and connected with one another by the loosest of ties. It will be very difficult for instance for the Indian Epics to satisfy the very just demand of Aristotle that the episodes of an epic poem must not only be relevant but also subordinate. It has sometimes been claimed for the *Mahabharata* that it is a great Hindu Encyclopædia embodying ancient Hindu civilisation in all its branches. May it not be said that the purpose of an epic poem is not to serve as a Dictionary of Mythology or as a Compendium of Universal Science?

Even as in prose we found that such brief literary forms as the essay did not exist, in poetry there is not the short poem in Indian Vernaculars, not even the short detached song lyric. The writings of Indian poets usually consist of a few distinct works, kavyas or court epics, and occasionally slightly shorter ones, but never of poetical pieces consisting of less than forty or fifty lines, except clever poetic puzzles and witty repartees in verse. The contents page of the collected edition of an Indian writer's work in verse would consist of but a very few entries and there would be no need for an alphabetical index of first lines. He never feels the need for writing a short piece on the champak, on the lotus or on "the little little koil singing on the *Sirish* bough." He would not reconcile himself very easily to the words of

Edgar Allan Poe, in his *Essay of the Poetic Principle*; "I hold that a long poem does not exist. That degree of excitement which would entitle a poem to be so called at all cannot be sustained through a composition of any great length. After the lapse of half an hour at the very utmost, it flags and the poem is no longer such." It is a disinclination to wander in these realms of dainty effort that accounts for the absence of the detached short song-lyric, though there are sequences of it in works like the *Gita Govinda* of Jayadeva.

With regard to the Ballad, the Indian languages are yet in the stage of not recognising it as a distinct branch of literature. No Indian Percy has yet come forward with his *Reliques of Ancient Poetry*, but when he does come, he is sure to be more profuse in his apologies than the good Bishop for having dabbled in what orthodox Indian notions would hold as "vulgar." And if an Indian Addison should presume to discover beauty in a simple ballad of the country he is sure to be snubbed more promptly and in terms more violent than those employed by Doctor Johnson in his criticism of Addison's two papers on the Ballad of Chevy Chase. Naturally there is not the Literary Ballad in the country, though there are thousands of popular ballads handed down by oral tradition, still sung to groups of villagers gathered under the banyan tree by wandering minstrels.

Any suggestion in the direction of writing pastorals, is likely to meet with only ridicule in the twentieth century. Dr. Johnson has established in a fairly conclusive manner, in connection with his criticism of *Lycidas* that the preservation of pastoral conventions in an age far removed from genuine pastoral life will lead the person attempting it into a medley of absurdities. But the suggestion

will be found to be fairly appropriate to Indian languages, as we have still around us here, a few miles away from our cities, the conditions of life and scenery that inspired Theocritus or Virgil. The Indian Corydon is there, beneath the shade of the tree, literally piping to admiring shepherds, of the fascinating beauty of the Phyllis of the neighbouring hamlet, or of the destruction wrought upon his flock of sheep by the wrath of the village deity. In a particularly bright and cheerful letter written by Lady Mary Montague to Pope from some idyllic haunt in Syria, in days before his indiscreet and unfortunate proposal of marriage to her, she writes, that on seeing some of those pastoral scenes she could understand how the idylls of Theocritus came to be written. A similar thing may be said of many a pleasant corner in the rural parts of this country, and there is yet scope for writing pastorals in the vernaculars. That will only be in consonance with the pastoral literature developed in connection with the beautiful legends of Krishna at Brindavan, possibly with this difference, that they would rely for their effect on the universal emotions roused by the humble cottage and the life of the shepherd, without needing the support of devotional fervour or of the mystifications of the spiritual allegory.

There are some general topics connected with the poetry of Indian literatures that must next demand our attention. The oriental imagination revels in the use of figures of speech and Indian literatures are always threatened with extravagance in their exhibition, sometimes to the serious detriment of even a clear understanding of the sense. Nothing is a better corrective of this weakness than a realisation of the comparative restraint

and sobriety of English. The writers in the vernacular must take to heart the wholesome lesson preached by Coleridge in the *Biographia Literaria* that the primary function of figures of speech is utilitarian, to make things clearer, the aim of ornamentation being only secondary. Nowhere is the extravagance so patent as in the use of Hyperbole. Professor Minto observes in his interesting book on English composition that the extent to which a writer could proceed in hyperbolical language must be determined by the nature of his readers and the quality of the taste obtaining in the community for which the literature is written. The Indian mind will undoubtedly stand much greater poetic effusiveness than the European. It would be amusing, for instance, to watch the hyperboles in the vernacular employed in the ordinary daily conversation of an Indian home. The lady of the house would describe a tall girl as one who had grown to be a mountain; fine diamond ear-rings would flash like lightning; crying must be in rivers of tears; a drawing-room with any pretensions to grandeur is the Court of Indra, and so on. But the temperament of the twentieth century will hardly encourage this frame of mind and there must be a gradual toning down of the literature.

Allied to this is the use of far-fetched poetic conceits in which also reformation would seem to be necessary. Dr. Johnson is pretty severe in his condemnation of The Metaphysical Poets in English literature, but it is difficult to imagine the provocation that would be caused to him if he found a poet saying that the terraces of a town were so high that beautiful damsels strolling on them could easily pluck golden lotuses from the heavenly Ganges: that a king was so valiant and had killed such a large number of other

kings that the collyrium from the eyes of their queens, mixing with the rivers of their tears had blackened the entire ocean; that a maiden's face was so bright that the full moon went and hid himself in sheer shame behind the clouds, and her eyes so superior to the shape of the fish as to keep them always under water and so on. These ideas look specially grotesque by detachment from their native setting, but some improvement does seem to be necessary only in the original. That will be consistent with the comparative self-restraint of such real Indian masters as Kalidasa.

Poetic description is too general a theme to submit itself to this examination, but a few aspects may be touched upon avoiding any claim to comprehensiveness. The description of landscape, excellence in which is such an essential part of poetic success, is often not sufficiently distinctive in the Indian languages to be real. Attempts like those aimed at the discovery of the exact relationship between the scenery of Tennyson's poems and the places of his sojourn would be impossible in connection with the work of Indian poets, though in the case of some of the early great Sanskrit writers, the Himalayan background with which they were familiar was made sufficiently individual.

The weakness is apparent generally with regard to all descriptions of men and things. They are all embodiments of ideal elements, admitting neither of distinction nor of the slightest reduction of merit in any direction. The description of Muttra is the same as that of Ujjain, of Kanchi as that of Varanasi, a few details with regard to the names of the gods, the various temples, or of the rivers that may flow by them constituting all the difference. Each is surrounded by fortress walls that reach

the skies, and ditches that would furnish means of communication with the lower world as easily as the Sibyl's cave in Virgil—there are tanks with lilies and lotuses and swans, and gardens with collection of plants, and trees that would perplex the most erudite professor of Botany. The members of the four castes are discharging their respective functions in the most ideal manner possible: the Brahmin is the ascetic full of holy fire, the Kshatriya is a warrior of irresistible might, each Vysya is as rich as Kubera the god of wealth, and the Sudra has reached the acme of agricultural prosperity.

The heroes of poetic pieces are similar monotonous exhibitions of the ideal. An Indian poet describing Sir Lancelot would be careful to avoid mentioning that he was "seam'd with an ancient sword cut on the cheek and bruised and bronzed." He would not only describe him as being like Arjuna in valour, but also like Kamadeva or the god of love himself in appearance. It must be difficult in such circumstances not to exclaim with impatience "should all this pass for description?"

Another aspect of poetic description in the Vernaculars which requires equally severe correction is excessive elaborateness, often amounting to a detailed scientific analysis. Female loveliness is never indicated for instance by some such brief touch as Browning's address "Thou lyric love, half angel and half bird and all a rapture and a wild desire," but set forth in a close examination of the body, limb by limb, suggesting the anatomist rather than the poet. It affects the treatment of love also and the most poetic of passions is often constrained to pass through stages of development defined with scientific precision.

At a time when the tragedy of a great war

has called the poetry of patriotism into special prominence in the English speaking world, it is difficult not to regret the utter absence of that branch of literature from Indian languages. An Indian scholar has recently tried to prove the existence in all periods of history, of the feeling of the fundamental unity of India. If it has existed, it is not discerned in Indian literature except in a very few vague appreciations of Bhavatavarsha as the centre and jewel of the universe, and of the great holiness of some sites in India. There is nothing like the long line of patriotic tradition we see in English poetry, from Drayton to Rupert Brooke who passed away in the Dardanelles last year with some of the noblest utterances of patriotism on his lips. It is not that there have not been themes enough in Indian History to inspire such poetry. There is the Indian Arthur, Vikramaditya, a narration of whose achievements will add to national glory as Dryden thought of the Founder of the Round Table: there is Porus offering his brilliant resistance on the Jelum to the fine army of Alexander, and there is Sivaji "riding on the whirlwind" of a great Hindu revival in Western India. It is no exaggeration to say the most inspiring poetry of patriotism is that of the people who speak "the tongue that Shakespeare spoke, the faith and morals hold which Milton held." And if their literature will not inspire patriotic verse in Indian languages, one might bid farewell to such a prospect for ever. It is interesting to note a number of successful attempts in Indian Vernaculars have however appeared in recent years, in Bengali, in Telugu, and quite recently in Tamil.

The high eminence of Sanskrit literature in the drama has somewhat limited the need for external inspiration in that department, but

centuries of stagnation are manifest in the want of two such valuable features as Tragedy and the Social Drama, in both of which however beginnings have recently been made. The conspicuous absence of Tragedy is inexplicable, especially when the doctrines of Karma and Indian philosophic tendencies generally would seem to be particularly congenial to it. The Indian convention of the undesirability of representing scenes of violence on the stage need not have stood in the way as is demonstrated by the development of Greek tragedy in spite of a similar observance. It is curious that a nation which was never hampered by the doctrine of dramatic unities, and which produced early in the Christian era such striking specimens of dramatic literature as *Sakuntala* and *Mrichakatika* which could challenge comparison with the masterpieces of any nation, should not have realised the possibilities of Tragedy and there should not have been a master

To whom the mighty mother did unveil
Her awful face

enabling him to unlock "the gates of thrilling fear" and the "sacred source of sympathetic tears."

A positive expression of the weakness is in the desire, to never deviate in the slightest measure, from the observance of poetic justice in the most popular sense of term, and strive for a happy ending in every circumstance. Addison's theory advanced in the *Spectator* and practised in *Cato*, that it is not goodness that is always triumphant in the world, and the artificial observance of poetic justice in the drama is therefore not worth striving for, has not been preached on Indian soil. As for the desire for a happy ending, a very grotesque exhibition of it was furnished the other day by a Hindustani version of *Hamlet* in which

Ophelia and Hamlet did not die but lived to share wedded happiness on the throne of Denmark.

The introduction of the drama of society is another problem of importance in this branch of the literature of Indian languages. Indian drama seemed to have grasped its possibilities for a moment, by the creation of King Sudraka's *Mrichakatika*, where we have the pulsing life of various grades of society in ancient Ujjain, set forth on a spacious canvas. But the good experiment was not repeated and we have not got even plays like the *Merry Wives of Windsor*, or the comedies of Ben Jonson, not to speak of Goldsmith and Sheridan or of the more recent exponents of the art like Bernard Shaw and Oscar Wilde or Pinero and Lady Gregory. Kings still go out a hunting and fall in love with princesses in forest homes; slay demons and multi-headed monsters; pay visits to heaven in aerial cars and come back in time for amorous sport at the royal gardens. All the time the grievous tragedies of life are there around the artist waiting for treatment. The immediate problems of human existence are staring us in the face when the dramatist is lulling himself to sleep in an unreal world of roseate romance. The example of the social dramatists of England and of continental dramatists like Ibsen and Strindberg who are also available in English garb, must help to add, a page of no ordinary value to Indian literatures.

This brief survey of the possibilities of expansion in various branches may conclude with one or two general considerations, the rich prospect of the borrowing of themes from English literature and possible additions to Indian vocabulary from English. With a literature more varied and voluminous than those of Greece and Rome, English must serve as a vast

storehouse of material to borrow from, for presentation in Indian art. Again it is hoped no narrow sense of purism will resist the desire to improve the range of expression of the Vernaculars by free importations from English. Such a practice of borrowing would not only be the adoption of one of the most widely accepted principles of linguistic evolution, but also be thoroughly consistent with the past history of Indian Vernaculars, which have borrowed as freely from one another and occasionally even from foreign languages as from Sanskrit. The work of expansion and enrichment suggested here would remain the expression of a mere pious hope without such a basis, and the languages will not be enabled to play the part they deserve in modern life and civilisation.

In Preparation.

COLLEGE ALGEBRA

A Text-book for the Intermediate and

B.A. Classes

BY

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THE GURUKULA SYSTEM OF EDUCATION.

PAST AND PRESENT.

INTRODUCTORY.

THE word *Gurukula* is a Sanskrit word, meaning the 'home of the guide.' The system of education known as the '*Gurukula* system of education' is otherwise known as the 'Domestic system of education' or the '*Acharya-Brahmachari* system of education.' When we speak of the Domestic system of education we have in view the home-like character of the system and when we speak of the *Acharya-Brahmachari* system, we think more of the personal tie between the teacher and the taught than of any other factor of the system. This system is *par excellence* the system of the ancient world. It developed to its perfection in ancient India. No doubt there were in ancient days institutions of another type called *Parishads*. But it appears that the dominating type of the school in ancient India was the *Gurukula*. In what way this institution differed from the modern institutions may be made out from the following words of Prof. Radhakumud Mukerjee:—"In ancient India there were hardly any educational institutions of the kind we are familiar with in modern times. The same difference that separates the Indian Industrial system from the Western seems to have distinguished also her educational system from the method and means of education obtaining in the West... She (ancient India) knew not factory system of production on large scale which makes man not the end but means of production. Nor did she know in matters of education the modern classes of 150, the engines of instruction which establish only a few hours

communication between the teacher and the taught to store the mind with information but not to mould and influence life. In the production of wealth as in the education of the mind, India seems to have followed the same system—the Domestic system which... in education creates an atmosphere, a home, where the mind and spirit may grow and thrive."

ITS AIMS.

Having given the reader an idea of the general character of the system, I shall speak of its aims. As pointed out above the system of Gurukula primarily refers to the pupil. It starts with the object of changing a raw, ignorant and uneducated boy into a fully and harmoniously developed man. It takes into consideration "the pupils' aptitudes and tendencies," tests them "through the habits of service, devotion and self-sacrifice, develops his capacities as 'menial, clerk, nurse, scholar, organiser, educationist' and a hundred other characters; it supplies 'those educational forces' and creates that 'environment and atmosphere' which are adjusted to inner cravings of the soul and can evoke, the real spirit of self-control and renunciation. It does not satisfy itself with a superficial study of the outer man. It dives deep into the inmost recesses of the human heart; it fully and completely recognises that persistent craving of the human heart for the good, the beautiful, the sublime and the supernatural. It notes that man is not a mere animal, that his life is not a manifestation of a mere play of complex chemical and physical changes and interactions, that his destinies are not confined to his short earthly sojourn and that the temporal affairs with their innumerable disorders and wranglings are as passing sights

in the great journey of human soul to the world beyond. It looks upon man as a great and glorious being existing from eternity to eternity and having super-mundane destinies and spiritual aims. Therefore it is that on first approaching his *Guru* the pupil in ancient India most reverentially said: "For the sake of realizing the Lord, for acquiring knowledge Divine do I approach thee, sire." In reply said the *Acharya*: "Oh child, I entrust you to the Lord to enable you to realize Him, I entrust you to the Lord to enable you to give peace unto all living things."

What else they aimed at in education, what the *Acharya* taught his pupil may be made out from the following few quotations taken from my forthcoming work, the "Education in Ancient India."

"...The pupil while entering the abode of his teacher prays that he should have the ability to support his family and race. There is also a prayer for the power of serving others.....*Brahmacharya* (purity) is the next ideal.....Five of the *Mantras* that are recited at the initiation ceremony and that continue to be repeated from day to day relate to this ideal.....Five times do the teacher and the pupil repeat: 'May we give up false actions and realize the true'.....The æsthetic in the pupil is also developed. At the initiation the pupil says: 'Oh *Apah* (Pervading Lord) have me in Thy charge to enable me to view beautiful scenes.'....."

"What value the ancient Hindus set on the development of intellect and mind may be made out from the following:—

- 'May I be the master of all knowledge.
- 'May I shine with comprehending intellect.
- 'May the Creator bestow upon me comprehending intellect.

'May the teacher and other learned men endow me with a crystal mind.

'Oh Powerful Lord! give me mind capable of storing knowledge.'

* * * *

"The *Acharya* promised to impart to his pupil a knowledge of spirituality, ethics, divinity and theology, hydrology, botany, meteorology, physical geography and geology, heat, optics and allied sciences and sociology.

"The teacher also promised to look after the body of his pupil. The following are pointed out as the things most desirable in connection with physique:—

1. Longevity.
2. Healthy body.
3. Firmness.
4. Sound senses.
5. General strength.
6. *Teja* (possessing appearance and personality.)

".....The ancient Indians had no dread of the bread and butter value of education.In the prayers offered at the initiation, the *Brahmachari* expresses a desire to be able to secure wealth, nourishing food, pure water, good vegetables and beautiful domestic animals. To enable his pupils to live a life of comfort and peace in the world, the *Acharya* gave him instruction in several useful arts."

METHOD AND MACHINERY.

Having given the reader an idea of the aims of the *Gurukula* system of education, I shall briefly refer to the method and machinery required for the successful working of the system. Those who believe in the system hold that education is essentially a work of art and that 'the life or

soul of an image, the vital principle of a work of art, 'the 'design,' 'plan' and other essential elements of a drama cannot come through many hands. It is the patience, perseverance, devotion and *sadhana* of an individual that can impart life and purpose to artistic performances and cast them into a definite mould! 'The ideals that the pupil is to cherish, the thoughts that are to be his life-blood, the convictions that are to mould his life's work and the principles that should regulate his conduct cannot be imparted through official decrees or collective efforts'. It is under the *Gurukula system* of education only that the pupil's ideals can be moulded, mission determined and campaign of work fixed in a manner than which nothing can be more psychological, more rational, more scientific."

THE TEACHER.

The central figure of the system—the *Acharya-Brahmacharin* system—is the *Acharya*, the *Guru*, the guide, the teacher. Who can aspire to that high position? One who lives the life of poverty, purity and peace. One who avoids all sensual pleasures and all means of acquiring wealth which impede the study of the *Vedas*. One who, in the word of the Divine *Veda*, is the store-house of knowledge; who can make his pupils feel that he is not less regardful of their interests than their fathers; who lives and can make others live a life; whose ways of life are pure and blameless; who instructs his pupils as if they were earnest seekers after truth,.....one who is as pleasing and merry as a guest and who performs his daily duties regularly. He who like the all-powerful sun shows every object in its true colours and by means of discipline and practice protects the

powers that lie hidden in his pupils. He who has a respectable character and is good looking as well as true and faithful and possessed of a happy soul and a retentive memory. He who lives like the sun, that balances the earth from all sides, and, like a king, who is a guide and a friend to every body. One who is forward and courageous like warriors who live for the good of others and who is stainless like a woman who is true to her husband. Lastly one who does endeavour to make the *Brahmachari* an inseparable part of his own self.

MORE OF OBSERVATION THAN READING.

This *Acharya*, this great store-house of learning, might have in his possession a number of books if he so chooses. But he should not attach much value to mere book-learning. He should make a sparing use of even text-books. For educating the child he should chiefly depend upon his well-stored memory and his surroundings. His surroundings he should use in developing his pupil's powers. He should make the student arrive at truth through the student's own observation. The pupil should often-times be left alone, to his own thoughts, to have frequent opportunities of holding communion with nature from whom he might learn great truths. Let him while tending his master's cattle or gathering fuel in the forest feel the influence of deep solitude which might mature his ideas and ripen his thoughts.

HIGHLY EDUCATIVE SURROUNDINGS.

As the teacher has to give his pupil opportunities of observing the things around, let him seek such surroundings as shall leave a deep impression on the plastic mind of the pupil. The school is to be near some forest or in some glen. Perhaps it is more con-

venient to be near some river, stream, tank or canal. Here where there is plenty of air and light, where there is abundance of heart-attracting scenery, where the brightness of the sun, the softness of the moon, the inspiring expanse of the heavens, and the twinklings of the stars enthrall the imagination and charm the soul, where the chattering of the monkeys, the lowing of the cows, the singing of the *bul bul* and the dancing of the peacock add to the joys of youth and frolic of childhood—even here let the future hopefuls of the country be educated.

NO ELABORATE MACHINERY,

WELL-DEVELOPED WILL.

When the surroundings have such a tremendous educative influence it is not necessary to have elaborate machinery for instruction. That may be used only in technical or highly-advanced institutions. For ordinary schools very simple hand-made contrivances will be quite sufficient. Crutches like the dual desks of modern times can have no place in the *Gurukula* system. The students can be made to sit erect by sheer force of will which can be developed to a very great extent by suitable exercises and by generally living a hard life. *Asans* (methods of sitting) which are described in detail in books on *Hatha Yoga*, etc., serve as very useful exercises for this purpose. The life of *Brahmacharya* with its accessories like coarse, single, hard bed, its severe discipline dispensing with the use of sunshades and umbrellas, of shoes and head-dresses, its austerity and physical labour like cleaning, sweeping, etc., its spare and *satvic* diet, its simple, clean and flowing dress would serve as an extremely potent factor in training the will of the student.

INMATES OF HOME NOT ALTOGETHER CUT OFF FROM ACTIVE LIFE.

The students though living in their own atmosphere should be given some opportunities of observing the actual realities of the social life. They might go out each day to get their meals from the towns-people and also they may run to save the town from sudden calamities such as breaking out of fire, etc.

THE VICISSITUDES THROUGH WHICH THE SYSTEM HAS PASSED.

The picture drawn above gives a general view of this ancient system of education. It was this system that gave India her great ones like Rama and Krishna, her philosophers like Kapila and Jaimini, her scientists like Kanada and Charak, her spiritualists like Patanjali and Shvetashwatra, her grammarians like Panini and Katyayan, poets like Valmiki and Vyas. The system that could produce such great ones must always inspire us with feeling of reverence. This system as times rolled on lost its pristine purity though it continued to have some vigour as yet. That Shankar and Kumaral, Vachaspati and Upadhyaya Gangesh, Bhava-Bhuti and Kalidas, Madhava and Ramanuj should have been produced in the middle ages through this system of education is another certificate of its efficiency. Though such great men were produced on occasions, yet with every advancing century the system grew more and more mechanical. The Mahomedan rule, the internecine wars that were so common during the seven centuries of the Mahomedan period, the religious bigotry and the introduction of new ideals which were super-imposed upon the ancient ones and which were never assimilated by the nation accelerated the downward progress of the system till the degeneration became extremely unbearable.

THE RENAISSANCE.

When this noble formation of an ancient and glorious age of the history of this hoary and holy land got thoroughly corrupted; when a smattering of characters, which had no vowel marks even, took the place of the appealing and flowing poetry of Valmiki; when a few arithmetical rules of thumb dethroned the *Ganat* (*Anka*, *Bija*, and *Rekha*) and *Jyotish* of ancient times; when especialization became synonymous with total absence of broad outlook of life and unending, unedifying wranglings and wordy wars, better times and circumstances appeared. During the peaceful regime of the British Raj, the new forces began their work. The revivalists like Rama Mohan Roy and Dayananda Saraswati and the orientalist like Sir William Jones and Prof. Max Muller directed their energies to the unearthing of the ancient hidden treasures. Working in this direction after strenuous study and hard labour, Dayananda came to the conclusion that the revival of the old system of education would alone save the nation and infuse in it new life. This thought of his he expressed while he was deeply moved on observing the ruins of the great fort of Chitour. At his death his great admirer, that flower of the Punjab University, Shri Pt. Gurudattā Vidyarthi, M.A., took up the idea and most eloquently and forcibly placed the ideal before the public. There was an enthusiastic response. Funds poured in. But before the D. A. V. College scheme was finally matured and given shape, there was a disagreement amongst its promoters on some questions of educational principles with the result that the Dayanand College—which stands out as a great monument to the credit of the Punjab—was run on the

modern University lines and the scheme of a Gurukula had to wait for a few years more.

THE IDEA CATCHES ON.

The gentleman who was the first to give practical shape to the Gurukula comes from the Doab division of the Punjab. He is the far-famed Mahatma Munshi Ramji. A successful pleader and an influential editor, he felt disgusted with his professional life and determined to devote the remaining part of his earthly career to the service of his motherland and of his religion. When he first proposed his scheme he was 'pooh-poohed.' But he had great faith in his ideals and withstood the trial with the result that to-day he stands at the head of a fine and a well-worked indigenous University. Not that alone. Being inspired by the work done at Hardwar, several enthusiastic patriots have started institutions of similar nature. There are two more near Hardwar where the first and the best worked institution is situated. There are some five to six more in other parts of the United Provinces. A very fine institution of a similar nature has also been started at Bombay. The Punjab also has some four institutions of the nature and there is at least one in each of the Central Provinces, Rajputana, Behar, and Bengal. Sindh is also said to possess some five small institutions worked on the system detailed above. These are all boys' homes. Attempts have been made from time to time to start girls' homes. It is believed that some three are now in existence. The best and the most beautifully worked is one situated at Tatta. It owes its origin and continuation to the efforts of an indefatigable and enthusiastic local worker, Seth Narsinglal Damanmal.

I have seen several of these institutions and have worked for a year and a half at the

Hardwar Gurukula. All the institutions that go under the name of Gurukula are not worthy of that name. Some of them are really very beautifully worked homes and are a source of inspiration for the children of the soil. Others there are whose workers have hardly understood the underlying principles. To give the reader an idea of a well-worked Gurukula I give a few quotations from Prof. Shewaram's article:

A PICTURE OF THE HARDWAR GURUKULA.

"Amid the inspiring grandeur of nature and these saving surroundings, the Brahmacharis live under the impartial, equal and all-fostering paternal care of Mahatma Munshi Ramji. Bells toll all hours and periods of the day and night, the students, going a happy round of duties, everything in its own good time. Prayer, study, food, school work, milk, school-work, play, food, prayer, study and sleep, thus goes the merry routine, with not a moment left to moop, moan, fret, abuse or fight. All neatly yellow clad, sandled bare-headed, issue in cheerful groups, be it from or to the school, college, quarters, *bhandar* or playground. The lower gross tendencies are thus automatically starved out amid this controllable, blessed environment and studious well-kept continuous discipline.

"Liberal, varied, unstimulating, pure, vegetarian diet is provided for all equally. Just the best for life and growth and no more is the practical guiding motto. The Doctor sets the diet table and keeps the health record of each student.

"Behold the *Brahmacharis* at play. Bare-footed, bare-legged almost up to their knees, see how they run and field, bowl and hit in cricket. Practice has perfected their limbs. Straight chubby natural toes are theirs, not crooked and corned, twisted and tortured.

...Morning and evening every one of them has to take exercise. A superintendent is always there to see that every *Brahmachari* is present and takes part in play and manly games.

"What about their teachers and professors? Why they too live in Spartan simplicity.

"No silly distraction does the place offer. The professors, therefore, take to some line of research or another. The students and their teachers and professors mix freely being so near. Their educational duty, their sincere sympathy, their very social instincts throw them into more or less intimate contact with the *Brahmacharis*, who have thus all the advantages of the society of the select. Thus is insured fraternal guidance by and living contact with the professors—such valuable and vital factors in all true education. ... Strict discipline, unstimulating diet, moral suggestiveness of everything around, render the accomplishment of the elevating and necessary ideal of *Brahmacharya* a practical possibility. The son of a rich man and the son of a poor man fare absolutely alike. No silly apishness can breed in such atmosphere, no insolence, no envy, jealousy or enmity between student and student."

SOME RESULTS OF THE HARDWAR

GURUKULA.

The Hardwar Gurukula is a great source of inspiration for all. It has proved beyond a shadow of doubt that the system which it represents is sound in principle. Its inmates certainly possess better physique than other graduates. Having lived a life of hard discipline, they show that they have got a fairly well-developed will. They smoke not, they drink not, they use absolutely no intoxicating drug. They play not at cards and they kill not time in useless pursuits. In heart they

are simple and warm. They can on occasions sacrifice their personal interests for public good. They can curtail their dishes to save money for helping a good cause. So far as their intellectual development is concerned, they will not suffer when compared with graduates elsewhere. Certainly they possess a vast amount of information and show a surprising versatility. They can easily hold conversation on the "burning questions" of the times as well as on the historical and antiquarian questions. They talk Sanskrit—that so-called dead language—as if it were their own mother-tongue.

Besides the above, the Gurukula has also proved that Hindi (Arya Bhasha) can be used successfully as a medium of instruction, that there is no subject historical, scientific or philosophical that cannot be taught through it. As a matter of fact the amount of work turned out is much greater. Thus has the Gurukula solved the question 'Vernaculars vs. English.' It has also been proved that the Indian surroundings, Indian folklore, Indian birds and beasts and Indian scenes afford effective means of education.

The system is much cheaper than the ordinary one. Attempts are being made to make it yet cheaper. This cheapness does not take away anything from the efficiency of the work. Thus a system of education is being evolved which might solve the educational problem of the poverty-stricken Indian.

This great indigenous institution also shows that the Indians have got organising and executive capacity. This power of the workers at the Gurukula shows itself at its best during the annual celebrations of the institution when about thirty thousand souls visit the sacred banks of the holy Ganges to note the progress made by their friends, the

workers of the institution. This huge concourse of people is managed without any aid from the Police and during those five days there never occurs a theft or any other roguery.

THE LAST WORD.

Having placed before the readers a general view of the Gurukula system of education both in its theoretical and practical character, I shall ask them to give to it the attention that it deserves, to try to see that every facility is afforded to the workers to carry out their experiments, to help them by suggestion, sympathy and aid, pecuniary or otherwise. The workers, I shall ask to co-operate systematically to make their experiments successful. They should understand that their interests are common interests, that they sail in the same boat. They should forget their own individual institutions for the general advance of the cause even as they have forgotten their personal interests for that of their homes. They should note that all of the homes cannot be developed into full-pledged Universities, that some of them should moderate their pretensions and undertake to do teaching work to a certain limit only, then handing over their inmates to larger 'homes.' Let the workers at the larger and maturer institutions look towards their younger brothers sympathetically and encourage them in their work and draw them into their own circle. Great as is the cause it demands great sacrifices and on its success or failure depends the solution of great problems. Let, therefore, all work together in a spirit of brotherliness and peace. Let there be called at an early date a conference of the representatives of all the institutions to decide upon the measures to be taken for the insuring of final success.

TARACHAND D. GAJRA.

EDUCATION AND CULTURE.

INTRODUCTION.

DOES the Education imparted in our schools and colleges tend to the forming of culture in our young men? Nobody, who is well conversant with the present state of education in our country, will dare to answer in the affirmative. It may not be a defect exclusively applicable to India, but that consolatory idea, is not at all likely to promote healthy ideals of education among us. Our radical weakness seems to lie in the high place and value assigned to examinations in our educational scheme. Examinations have been enthroned on such a high pedestal that it seems almost impossible to dislodge them to their legitimate place in the near future. And education that is so dominated by, or subordinated to meet the needs of, examinations can never be built up on sound lines. To pass certain examinations is the end and aim of the educational efforts of our youths, because they are the only passports to public service or to the learned professions. Most of our schools and colleges are intended chiefly to coach our students to enable them to pass successfully through the ordeal of examinations. The worship of this fetish has tended to cramp the soul and its natural and normal growth. As matters stand, examinations have to be tolerated; students have to be prepared to meet the test of examinations. But should higher ends be blindly sacrificed to answer the call of his routine course? Is it not possible so to regulate matters that while the immediate purpose of examinations is properly attended to, an attempt, a genuine attempt, is made to satisfy the higher demands of learning and culture? As practical and thoughtful teachers we should try.

THE FUNCTION OF THE SCHOOL.

Old world ideas about education are fast vanishing. No one now dreams of completing or finishing his education with the close of the school or college career. Education is recognised as a lifelong process. The school can at best hope to lay a solid foundation. Life, with its varied experiences, is the best of teachers, though often stern and austere. Education is a majestic tree of long and slow growth. What the schools ought to try to accomplish is to prepare the soil carefully, to sow the seed in time, to watch with parental care the sprouting of the plant until it puts forth a few leaves and is able to stand on its tender legs. If this difficult task of early nourishment and watering is sympathetically performed at school, it is sure to bear good and sweet fruits in due course of time. The gradual development of the plant into a well-grown tree, that takes place in imperceptible degrees, is a result to be achieved only in mature life by assiduous devotion and incessant labour. Long and arduous as is the task, it is a toil delightful to be borne and fruitful in its results.

AIMS OF EDUCATION.

Education has to fulfil many functions. It is a complex process. The objects to be aimed at in education mainly depend upon the ideals to which we aspire and the methods we adopt in attaining them. In its comprehensive aspect, education should equip our young men to fight manfully and successfully the battle of life. To pass through the ordeals of life and to bear the hard knocks inseparable from practical life patiently and bravely, requires a firm substratum of mental power that only a sound education can give. As a result of the study of Psychology, it is

now recognised that education should strive to draw out all the latent faculties of the child and harmoniously develop them to their utmost capacity. Again, the formation of good character is being more and more admitted to be the most sacred function of education. It is character alone that will impel man to higher ideals of life, to resist temptation and to be good, true and loving citizens of their mother-country. In addition to these higher and wider aims, there are also more concrete and material objects in view. In all countries, especially so in India with regard to English education, it is a breadwinner. Most people in India take to English education chiefly because it secures to them a decent means of earning their livelihood. This commercial aspect, universal in its application and indispensable in the economy of human life, should never be ignored. But in the complete realisation of the varied functions of education, is it not possible, nay, is it not highly necessary, to include the *cultural aspect of education* also? If education should fulfil its noblest function and realise its highest ideal, the fostering of culture should be assigned a very prominent place.

WHAT IS CULTURE?

Culture is easily seen and felt where it exists, but not so easily expressed or defined. It is rather an attitude of the mind, or an "intellectual atmosphere" than a tangible possession of the mind. As Montesque says, it is "the desire to augment the excellence of our nature." It is not a simple or elementary quality but a complex virtue, compounded of many simples. What style is to language, that culture is to the mind. And as style consists of intellectual, emotional,

and æsthetic elements or qualities, the same attributes are to be met within a cultured mind. Culture is not, as is popularly understood, synonymous with philological learning or scholarship, though literature and art contribute to its formation. Erudition may be a means to that end, but not the end itself. It is as Matthew Arnold beautifully says, "an inward spiritual activity exhibiting sweetness and light." The light of culture cannot exist unless the mind is guided and swayed by right reason and "sweet reasonableness." It is not something to be directly acquired in a short time but indirectly and imperceptibly derived and developed by a long arduous process of mental evolution. It should be sedulously cultivated by reading, observing and thinking. It can luxuriantly grow by living contact with great and noble minds. In the society of a Shakespeare, a Milton, a Johnson, a Coleridge, a Shelley or a Ruskin, culture would flourish in all its richness and beauty. But such society not being easily accessible to us the only alternative is to seek communion with those master spirits as enshrined in the immortal works, "the mental offsprings," they have bequeathed to posterity.

A MAN OF CULTURE.

Probably the greatest attribute of a man of culture is that he is ever a seeker after knowledge and truth. His mind always craves for an endless expansion of its powers, and for a gradual growth in wisdom and beauty. This burning thirst for intellectual advancement is in him happily mingled with a persistent striving after moral goodness and virtue. It is the divorce of abnormal intellectual power from a right moral feeling that leads a man, like Marlowe's Flaustus, who having gained mastery over the secrets and forces of nature,

turns astray to hold intercourse with the Devil and misuses his intellectual gift either for the gratification of sensual pleasures or the vain enjoyment of material wealth and luxury. No greater tragedy than this could be imagined. The only means of averting such a calamity is the inculcation of sound ethical principles side by side with intellectual study. A man of culture evidently is liberal in all his views, tolerant of the opinions of others, and perfectly catholic in his tastes and interests. Narrowness and bigotry can have no room in his mental world. Never lacking in true and firm faith, he accepts reason and reason alone as his guide in the conduct of life. A mind, ever gentle and genial in temper flowing with the milk of human kindness, ever ready to the reception of new ideas from whatsoever source, never the creature of circumstances but with dauntless breast resisting and overcoming them, always desirous of removing human error and diminishing human misery, finely tempered by experience, permeated through and through with the one sole idea of leaving the world better than he found it,—such is the ideal of a man of culture. With him there is always a healthy discontent as regards his mental enlightenment; it is a progressive onward march, his knowledge ever increasing from more to more. Until his *beau-ideal* of culture is realised, the process is ever a growing and a becoming, never a ceasing and a resting. Social motives,—the spirit of social service, the desire of enhancing human worth and dignity, the attempt to promote the happiness of humanity by the diffusion of knowledge and virtue—form a main and prominent part of his ideal. Finally, in the midst of the highest honours bestowed on him by society, he never deviates from the path of plain living

and high thinking, never allows the true grace and serenity of his soul to be agitated, and always maintains his philosophic calm or "wise passiveness" as Wordsworth terms it.

CULTURE AND HIGHER EDUCATION.

There is a popular notion that culture can be aspired to only by those who have passed through the University course or at least who are graduates. This, like other popular fallacies, is quite unfounded and unsound. Among men who have received University education, the majority are neither cultured nor very anxious to acquire it. On the other hand, there are many men of true culture to be found among those who had not the fortunate privilege of passing through the portals of a college. In fact, there is no inevitable relation between University learning and culture; the latter being capable of existing and flourishing independently of the former, though assisted in the process of its development by it. Culture is the product of one's taste, temper and mental inclination. Therefore each stage of education, whether elementary, secondary or collegiate, is capable of infusing into the minds of young men this cultural taste in its own way, to a smaller or larger extent, provided the avenues that are open at each stage of education are properly utilised for this purpose. If this aim is prominently kept in mind by the teachers, opportunities and means shall certainly not be wanting in the course of their usual work.

THE TEACHER AS A MAN OF CULTURE.

Example is better than precept. This maxim is more applicable to the teacher who desires to diffuse culture among his students than to any other professional man. If a high standard of culture is quite essential, nay in-

dispensable, to any calling for the successful and conscientious discharge of duties, it is to the calling of the teacher. The teacher should, as far as possible, strive to embody in himself many of the qualities of a man of culture. Unless he is rich in that mental treasure, how can he hope to bestow it on others? The teacher has not only to sharpen the intellect, but to mould the heart, of youth. In both respects he should try to be an object worthy of imitation by his students. Our life and work afford ample opportunities and leisure for the acquisition of this gift. Yet if we blindly and wilfully ignore or neglect them, we shall be guilty of criminal negligence, for which we shall deserve only the reproach and scorn of posterity. We cannot properly cultivate the intellect of our students unless we are ever eager to equip ourselves mentally by cheerfully welcoming and assimilating knowledge and truth from "fresh woods and pastures new." We cannot hope to build the character of our youths unless we are ourselves men of unimpeachable character, ever ready to follow the path of honour and virtue, ever bent upon practising our own precepts. If the teacher strives, in his own humble way, to lead a cultured life, the students are sure even without any direct teaching by him, to imbibe those qualities unconsciously by their daily contact with him. Good example is contagious and it cannot fail to influence them for good.

WHAT SCHOOLS CAN DO.

As in the case of education, the school can and should aim at laying a strong and deep foundation of culture. The school should try to create, to foster and to shape the taste and æsthetic tendencies of the students. The very atmosphere of

the school should be such as to infuse and quicken such a desire. *Æsthetic taste*, a taste for the fine arts, is an essential element of culture. The architectural beauty or stateliness of the school building, the influence of tastefully laid out gardens, the decorative aspects of the school, the presence of the masterpieces of great painters and other pictures illustrative of historical scenes or incidents adorning the school walls—all these can contribute their little share in that direction. More than every thing else the teachers should strive, sedulously strive, to cultivate in the students a taste, a genuine taste, for reading. Much can be done in creating this taste if the regular teaching in the school is directed not only to meet the requirements of examinations, but to subserve indirectly the needs and higher aims of culture. In these days when, as Carlyle says, "the true university is a collection of books," a good library stocked with a large number of the masterpieces of wit and learning of the great minds of ancient or modern ages, and representing noble models in the different departments of literature, is quite essential, nay indispensable, to meet the demands of culture. The marvellous cheapness of books at the present day facilitates the making up of this much needed equipment of the school. The very presence of such a library acts as a stimulus in reviving their natural sense of curiosity and intensifying their thirst for a knowledge of the outside world in fact or in fiction and providing at the same time the means of quenching that thirst. Very much certainly depends upon the manner in which the library is made use of. If the teachers act the part of their guide with genuine sympathy and interest, by co-ordinating the regular work of the school with the library work and

by discharging their duty of selecting and supervising the reading matter of the students, fruitful results cannot but ensue. Are we doing this duty conscientiously according to our best lights? Let us try to fulfil in our every day work, to the best of our ability, this function of imparting culture, one of the sweetest fruits of education and one of the noblest, though subtlest, duties of the teacher. If we have succeeded in laying a sound foundation the young men are sure, after they enter life, to rear upon it stately structures according to their will and capacity for work. The pursuit of this culture, adding daily to our stock of knowledge, widening the intellectual calibre, strengthening the moral backbone, and refining the *æsthetic taste*, affords not only infinite delight and profit in itself but acts as a relaxation during leisure hours after our exacting professional work. Such moments, we often feel, are the happiest moments of our life in which we realise, in however humble a degree some of the simplest and purest aspirations of human life.

SUBJECTS FOR STUDY.

Among school subjects specially calculated to aid culture, Literature, History and Natural Science might be mentioned. The humanizing influence of the study of the immortal works of the great masters of literature is as sound as it is potent. For a harmonious development of our faculties embracing both the head and the heart there is nothing equal to literature. Everything depends upon the principles and aims underlying our teaching. Whether in prose or in poetry, to make the piece intelligible and interesting thus paving the way for appreciation, should be made the ultimate end and aim of teaching. Poetry should be taught not merely to impart the

power of paraphrasing or explaining verbal riddles or unravelling grammatical obscurities, but so as to appeal to and enlarge the imagination and emotion by always bringing out the underlying spirit, the prevailing beauty and the appropriateness of the lines. Similarly, prose passages, descriptive of persons or places, stories narrating a stirring incident or adventure, or essays treating about general abstract subjects, might be made to serve a similar purpose. We must never lose sight of or overlook the cultural end in view.

History might be made a source of mental training, for liberalising our views, cultivating our power of judgment and realising our duties as men and as citizens. Every man of liberal education ought to possess at least a general but accurate knowledge of the stages by which man, from the primitive state of barbarism, has developed into a highly civilized being, and the lines along which this civilisation has been evolved and the manner in which the sum of human progress has been built up by gradually receiving contributions from the characteristic elements in the genius of each important nation. In addition to this knowledge of the onward march of human progress, we, as social beings endowed with social and moral interests, ought to have a clear grasp of the moral nature of man and the elements constituting human society, if we are to be guided by worthy models or true principles of social and political action. Again, in our capacity as citizens, apart from being private individuals, the knowledge of history alone, by inculcating a high sense of human duty and by enabling us to have a true perspective of the relative value and significance of current, political and social questions, will qualify us to discharge in a consistent and rational manner our duties towards our fellow-citizens. History should be taught in our schools with the conscious aim of realising the above advantages as well as to enable our

young men to form a correct estimate of the great men of former ages, who have left their mark upon the history of their times, that they might cherish their memory and honour them as the heroes of the world.

The aim of all science is to enlarge the bounds of human knowledge by unravelling the mysterious secrets and hidden forces of nature and utilising them to minister to the comfort and advancement of mankind. The province over which the scientist strives to extend his conquests embraces all kinds of matter and energy. The pursuit of science creates in its votaries a respect for all knowledge, a disinterested love of truth, and a passion for seeking it, in addition to moulding and developing the faculties of observation, reasoning and sound judgment. The object of science teaching in our schools should not be the imparting of mere book knowledge but to infuse that scientific attitude of mind and taste for the study of nature which will enable them not only to intelligently understand and explain the natural phenomena taking place in the world around them but to conduct researches in their own humble way to add to the sum of human knowledge. The study of the lives of plants and flowers, as regards their structure and functions, creates a taste for beauty and a love of nature for its own sake. There is a spiritual element also infused by that study. A knowledge of the thrilling revelations brought to light by the epoch-making researches of Dr. J. C. Bose on plant life, besides enhancing our regard and respect for all kinds of life, in as far as they establish the fundamental unity of all existence, leads a man to "look through Nature up to Nature's God."

NATIONAL CULTURE.

In addition to the formation of individual culture, every civilized state now recognises

the promotion of national culture as one of its paramount duties. A general diffusion of national culture is impossible without free and compulsory education among the people. Education, however elementary, is as essential for the mind as food for the body. If a desire for culture is to be generated. After the completion of the regular school course, provision is made to better their knowledge and taste by various means in different countries. Extension schools and courses, working men's colleges and other similar institutions in England are living examples. Public lectures, and exhibitions with lantern slides and other practical demonstrations, are held on subjects of popular interest. Three libraries, especially in America, which set the model to the whole world, are opened in large numbers to satisfy this popular craving for knowledge. Museums and picture galleries, ever open to all classes of the people, are other highly expensive ways of increasing their general information and taste. Numerous are the directions in which modern governments provide means often at great cost for creating, fostering and diffusing culture among the people.

P. K. ANANTANARAYAN IYER.

A new society, called the Bengal Economic Association, has just been founded in Calcutta. H. E. Lord Carmichael is the President, and Prof. C. J. Hamilton is the Honorary Secretary, of this body. Its main object is the "encouragement of the study, practical and theoretical, of the problems that bear on the well-being of India and, in particular, of Bengal." The society will publish a journal, which will serve as a medium for the circulation of papers of real scientific value.

CHARLOTTE BRONTË AND HER WRITINGS A LITERARY ESTIMATE.

(V. MUTHUSWAMI AYYAR, M.A., L.T.)

I BIRTH AND PARENTAGE—THE INFLUENCE OF HEREDITY.

CHARLOTTE BRONTË was born in April 1816, the third child of Patrick Brontë and Maria Branwell. Maria and Elizabeth, her elder sisters having been born in 1813 and 1814 respectively, did not differ from her in age to any appreciable extent, as also the younger sisters, Emily and Anne, who were respectively born in the years 1818 and 1820.

The Rev. Patrick Brontë, the father of these children, was a distinguished Cambridge graduate and a man passionately fond of books. He was an Irishman by birth and could himself boast of a parent who, though illiterate, was endowed with high mental attainments and was regarded by his neighbours as a genius in his own way who could tell—"wonderful stories—some of them so wild and blood-curdling that the simple villagers (after listening to them) were afraid to go home in the dark."

Patrick Brontë was ordained to the church and became a curate. He had a taste for poetry and published in 1811 a collection of his poems called 'Cottage Poems.' He wrote during the years 1813 to 1818 three or four books in prose and verse. But his literary venture was not successful. As a man he had a forceful character and held decided opinions on 'Politics' and 'Industry' that were the burning questions of the day. But he is now solely remembered as the father of the illustrious children.

The mother of the Brontës, Maria Bran-

* 'The Brontës in Ireland'—Dr. Wright.

well was also of a literary turn of mind. When her love letters written in 1812 were read by C.B. four decades later, the daughter, then in the height of her fame as the talented author of 'Jane Eyre,' noticed in them—"a refinement, a constancy, a modesty, a sense, a gentleness—indescribable." Mrs. Brontë had a mind strong and independent, and, as she wrote to her lover, she was "perfectly her own mistress." She did her best to stimulate her husband's literary efforts.

Both the parents of the Brontë children are thus seen to have possessed literary instinct and strength of character—qualities which were by heredity transmitted to their children to a remarkable extent.

II EARLY LIFE—ENVIRONMENTAL INFLUENCES—PRE-LITERARY CAREER.

In the year 1820, when C. B. was four years old, her father accepted the parson's place at Haworth in Yorkshire. Here the parson lived till 1861 when he died in his eighty-fourth year, all his unfortunate daughters, who were none of them blessed with long life, having preceded him to the grave. Thus Haworth is distinctively the home of the Brontës.

The country at the back of Haworth was wild and rugged and the scenery of the Yorkshire moors had "a primeval beauty and savageness of its own." The Brontë children, though they were very young, were allowed to wander as they pleased on the 'lonely moors.' Mrs. Brontë fell ill soon

* 'Makers of English Fiction'—W. J. Dawson.

† Quoted in 'The Brontës'—Miss Flora Mason.

‡ Do. do., also in "Charlotte Brontë and her circle."—Mr. Clement Shorter.

after she came to Haworth and the parson was constantly attending on her. The children had the greater liberty on that account to roam freely in the neighbourhood, to chat freely with the "sturdy and crabbed" rustics and to listen to the stories current among them. Referring to Yorkshire and Yorkshire men Mr. G. K. Chesterton writes in rather forcible language as follows:—"...that country where Catholicism lingered latest, but in a superstitious form; where modern industrialism came earliest and was more superstitious still. The strong winds and sterile places, the old tyranny of the barons and the new and blacker tyranny of the manufacturers, has (have?) made and left that country a land of barbarians."

These breezy moors of Yorkshire with 'strong winds and sterile places' were loved by the Brontë children with great enthusiasm; and it is not too much to say that they (the moors) formed the nursery of their childhood more than the parsonage home.

In 1821, a year after coming to Haworth, Mrs. Brontë died of her illness. To the children was thus denied the benefit of maternal affection and training. Had the mother lived to train her children, it is possible that the daughters might have taken a more genial and less austere view of life. But this is only a speculation.

After the death of the mother, the children, while they were at home, sat and talked together, read and discussed the newspaper and papa's books—there were neither toys nor children's books in the house—; nay they even gravely disputed about the re-

* 'George Eliot'—Leslie Stephen.

† 'The Victorian age in Literature'—G. K. Chesterton.

lative merits of Wellington and Napoleon, of Hannibal and Caesar, the parson acting as the arbitrator when the discussion waxed too hot. When they were out, they freely wandered in the woods as before. The influence of this atmosphere over the young and impressionable minds of the Brontës, who were one and all of them of a precocious nature, can hardly be over-estimated. * "The Brontës," says Hugh Walker, "though not of Yorkshire blood, show not a little of the character of Northern England."

After Mrs. Brontë's death, Miss Branwell, her sister, took charge of the household and the children. She too was fond of reading, as may be judged from her "new year gift" of the three volumes of Sir Walter Scott's 'Tales of a Grand-father' to her little nieces in 1828. The children were thus spending their early years partly in worshipping Nature and partly in reading whatever books they could get and discussing politics.

In the year 1824 Maria, Eliza, Charlotte and Emily were sent to school at Cowan Bridge four miles off as boarders. This institution was conducted on shamefully economical lines and the school children consequently suffered terribly. Maria and Eliza got ill and died in 1825. That wretched institution and the tragic death of both of her elder sisters left a lasting impression on C. B.'s mind.

The surviving children were not sent to any school till 1831. During this interval of six years they spent their time much in the same undisciplined manner as they did before they went to Cowan Bridge School,

* 'The literature of the Victorian Era'—Hugh Walker.

† Referred to in "The life of C. B."—Mrs. Gaskell.

doing a good deal of spasmodic reading and wandering in the 'windy moors.' But now they took, in addition to writing also. "The tales of Islanders" and their 'little magazines' were scribbled away volume after volume. They wrote dramatic poems and romances.

In 1831 C. B. was sent to a school managed by one Miss Wooler at Roehead, twenty miles from Haworth. Here she had a pleasanter and more agreeable experience, formed lasting friendships with some of the girls—one of them Ellen Nussey preserved about 500 of her letters—and endeared herself to all the girls by narrating thrilling Romance stories. After spending about a year and a half at Roehead, C. B. returned home to 'instruct' Emily and Anne. In 1835 Charlotte and Emily went to Miss Wooler's school, the former as a teacher and the latter as a pupil. Emily had to come away partly because of ill-health and chiefly because she could not bear separation from her 'lonely moors.' But C. B. continued at Roehead till 1838.

In 1836 the ambitious Charlotte wrote to the then poet-laureate, Southey, enclosing some of her verses. The reply was, though belated, yet a sincere one. * "Literature," the poet-laureate said in distinct terms, "cannot be the business of a woman's life and it ought not to be." The literary man of to-day may be tempted to suppress a genial laugh when he reads this imperative dictum of the State-poet. But we must consider the fact that in those days no woman, except perhaps Jane Austen, took to literature as a profession. Perhaps Southey used 'literature' in the restricted sense of poetry as C. B. submitted only poems to his judgment. But

* Referred to in "The Life of C. B."—Mrs. Gaskell.

the poet-laureate shrewdly added that C. B. might 'write poetry for its own sake' and must not 'disparage' her poetic gift.

This reply was thankfully received and the advice faithfully followed. Perhaps this letter had a great effect in turning her attention from literature to 'governessing'—though only temporarily. For a year or two she undertook tuition in private families, but she did not quite like that sort of work.

The sisters now thought of opening a school. But they felt that their accomplishments were not all-round. They did not know foreign languages and music. The thought now flashed to C. B.'s mind that herself and Emily might undergo with profit a course of six months' training in a school at Brussels. When writing to her aunt in this connection C. B. says, * "Papa will perhaps think it an ambitious scheme, but whoever rose in the world without ambition? When he left Ireland to go to Cambridge University, he was as ambitious as I am now. I want us all to get on. I know we have talents and want them to be turned to account..." This letter is quite characteristic of the writer.

After the parent's permission was obtained, she started for Brussels in 1842 with her sister Emily. Madame Hêgar was the manager of the school at Brussels and M. Hêgar the professor of Rhetoric. M. Hêgar was struck with the remarkable ability of his British pupils and the pupils found in him one with whom they had much intellectual sympathy. Charlotte Brontë had a great admiration for the professor's attainments and her letters to him written about the year 1844 were but very recently—only a few

* Referred to in "The Life of C. B."—Mrs. Gaskell.

months back—placed before the public. When their training course was over, they were retained at Brussels as pupil-teachers; but, shortly afterwards, they had to come away to England owing to the death of their aunt. At the express request of 'professor' Hêgar, C. B. again went to Brussels, this time as teacher of English. Because of her staunch Protestantism and habitual aloofness, her life at Belgium was not altogether happy and when in 1844, her father's eye-disease became worse she left Brussels for good.

The sisters now advertised about a school of their own. But the response was not hearty. In 1846, they published a volume of their collected poems assuming the names of Currer, Ellis and Acton Bell (the initials are their own). The publication cost them £31-10-0. The poems, especially Emily's, were reviewed well in some papers; but they did not sell. The sisters now wrote each a story 'The Professor,' 'Wuthering Heights' and 'Agnes Grey' and were sending them to publisher after publisher with indifferent success. Without being discouraged by this, C. B. worked at her new novel 'Jane Eyre' which she had already begun. It was sent in 1847 to the publishers at London. They unanimously thought that the book was a very remarkable one. And Jane Eyre was promptly published the same year. With 'Jane Eyre' the period of the author's purely literary activity began. And now she took to literature as her profession in spite of Southey's warning.

III

JANE EYRE.

* "That gripped at the heart-strings of the whole reading world"—Sir Wemyss Reid.

* Quoted in "The Brontës"—Miss Flora Manson.

Of 'Jane Eyre' it may be truly said that it became instantly popular. It is one of those books that must catch with the public on account of its innate worth and force. The story is but a small one, but the thrilling interest that centres round the heroine arrests the reader's attention at every step.

This heroine is not the society lady of bright wits and beautiful person, the leading figure in balls and dances. That would not suit C. B.'s taste. Such heroines were the creations of the novelists that preceded her and to such heroines she refers in terms of contempt in her writings. In a later novel 'Shirley' she puts the following conversation in the mouths of Mrs. Pryor and her daughter.

Mrs. Pryor.—"My dear, Romances are pernicious, you do not read them, I hope."

Caroline.—"Sometimes.....But Romance writers might know nothing of love judging by the way in which they treat of it."

Mrs. Pryor (assenting eagerly).—"Nothing whatever, my dear...They show you only the green tempting surface of the marsh and give not one faithful or truthful hint of the slough underneath."

In another place in the same book, we find, "In my experience, I had not met with truth, modesty and good principles as concomitants of beauty." This, however, is a sweeping statement, but it reveals to us nevertheless the author's view of the question.

Jane Eyre, C. B.'s heroine, is an orphan from her childhood, hardly eighteen years old, when she is a tutor in Mr. Rochester's, with a body that is considerably undergrown for her age and with none of the accessories of dress or jewels to show herself to advantage. She has a pair of wonderful eyes, a quick brain and a fiery soul. Here are the

author's own words with regard to her conception of the heroine in this manner. These words were uttered (when the novel was being written) to her sisters who thought that heroines would not be interesting to readers, if they were not beautiful. Said Charlotte: **"I will prove to you that you are wrong. I will show you a heroine as plain and as small as myself (the italics are ours) who shall be as interesting as any of yours."*

The unanimous verdict about the book is that it not merely 'interests' the readers, but it moves their hearts to the core. Jane Eyre is, as Mr. Rochester admiringly calls her, "the spirit—with will and energy and virtue and purity." She is like her creator a passionate and impulsive being credited with wonderful strength of mind and tenacity of purpose, and there is an air of transparent sincerity about all her actions. Passages might be cited from almost every page of the book wherein this mental trait of the heroine is brought to the forefront.

The scene where Mr. Rochester confesses his love to her and where she, though her heart is throbbing with passion, yet discusses with him the propriety of his action addressing him all the while with her cool 'sir' is a masterpiece in literature. This earnestness of purpose is noticeable in every thought she thinks, in every word she speaks and in every deed she does.

Though Jane Eyre is the moving 'spirit' in the story, the other characters are also drawn each with a distinct individuality. Mr. Rochester for example is one who has travelled much and profited by his travels. He had his weaknesses when he was young which he himself admits, yet with the growing of life's experience, he has grown wise. He is by nature of a kindly disposition, though

* Quoted in 'The Brontës'—Miss Flora Mason.

"he may appear to a stranger, changeful and abrupt." As regards his personal appearance he is, as Jane Eyre said, 'not handsome.' In course of time we are not surprised that Mr. Rochester and Jane Eyre entertain feelings of mutual regard and admiration. Jane Eyre is only a governess in his house for his adopted child—and governesses were then held in low esteem. Nevertheless when he finds true worth in her, his heart yearns for her love.

The question of the propriety of Mr. Rochester's having kept Jane Eyre in the dark with regard to his first marriage and of Jane Eyre's abruptly leaving his house, though not without a conflict of mental feelings that torture her suggests itself here. Mr. Rochester's position is explained by himself to Jane Eyre in a very pathetic and passionate manner. It is not improbable that one, circumstanced as he was, with the prospect of domestic happiness that was long denied to him now within his easy reach, would act as Mr. Rochester did.

As regards Jane Eyre's refusing to accept him, after she came to know of his first marriage, we may quote the author's own sentiments about marriage which are expressed in a conversation between Lucy Snowe and Pauline in her later novel 'Villette.'

Lucy Snowe.—"Maintain no further correspondence, till your father knows all, and gives his sanction."

Pauline.—"Will he ever give it?"

Lucy Snowe.—"Time will show, wait."

Pauline.—"Dr. B. wrote to me one other letter deeply grateful for my calm brief note; but I anticipated your advice by saying that while my sentiments continued the same, I could not without my father's knowledge write again."

Probably had Jane Eyre a 'father' to whom she might refer her situation, she would have given the same reply to Mr. Rochester. She felt that marriage though with a devilish lunatic was a sacred law and could not reconcile herself to break it. She would sooner break her heart with feelings of sympathy and pity for Mr. Rochester whom she must leave. George Eliot whose view of the question was a different one, as her union with Lawes clearly showed, exclaimed after reading 'Jane Eyre.' "All self-sacrifice is good; but one would like it to be in a somewhat nobler cause than that of a diabolical law that enchains a man, body and soul to a putrefying carcase." G. Eliot was of a cool and thoughtful temperament whereas C. B. was of a passionate nature. That explains the difference.

Although Jane Eyre and Mr. Rochester are the two most striking characters of the story, the reader of Jane Eyre cannot easily forget the other characters, as these are also drawn in a vivid manner. Not even the fact of their being placed side by side with Jane Eyre, and Mr. Rochester could obliterate them from the readers' mind. Master John Reed's inborn wickedness, Miss Georgiana's vanity, Mrs. Reed's culpable indifference to her little cousin Jane Eyre, Miss Ingram's portraiture as a lady of fashion, St. John's love of service, Mrs. Fairfax's kindness of heart, the affectionate regard which the housemaid Bessie and the coachman John show towards Jane Eyre and the way in which Jane Eyre behaves towards each and every one of these are all drawn in a manner that is entirely to the credit of the novelist.

Apart from the fact that the heroine is modelled after the author's own mental self, there are some scenes in the book in which her past experiences have been reproduced. The description of the Lowood School managed

on shamefully economical lines by Mr. Brocklehurst, the treatment that the girls receive there—their being underfed and their hair cropped close—the fever that broke out in the school and the consequent misery and death among the school girls are all faithful, though very painful, recollections of the author's memories of the Cowan Bridge School. And the pathetic death of Helen Burns, little Jane's loving friend, is a reproduction of the death scene of her own sister Maria. Jane Eyre's position as a governess in private family has also its counterpart in the original.

It is true that these characteristics won for the book its immediate popularity and also assigned it a permanent place in the gallery of English fiction. It is also equally true that the book has some marked defects.

The high-wrought feelings exhibited in the character of Jane Eyre detract from the merit of the book as a work of art. "I should hesitate to think," says Mr. G. K. Chesterton* "that C. B.'s ('Jane Eyre') is a better book than Thackeray's ('Vanity Fair'), though I think it might well be maintained that it is a better story." The almost theatrical effects which are produced by the undisguised display of heat and passion are not suited to minds inclined to be sober.

The arrangement of the plot in the book too leaves much to be desired. It lacks comprehensiveness and breadth; it lacks also proportion. There is not found in the book that variety of treatment which is, in novels as elsewhere, 'the spice of life.' From cover to cover there prevails in the book a tone of unflinching austerity and seriousness—unrelieved by a single instance of humour—a tone which is

* The Victorian age in Literature—G. K. Chesterton.

not quite compatible with the character of the book as a work of fiction.

But the main point of note about 'Jane Eyre' is that it demonstrates for the first time in English novels the possibility of writing a thrilling romance with materials of a very ordinary kind. The novel of the social comedy could not do it, the novel of the chivalry of the middle ages did not do it, the 'Pickwick' novels again could not do it. From the barest elements of human nature C. B.'s story is worked out. She has illustrated what Sir Walter Scott said to his nephew Lockhart.* "If one could look into the heart of the little cluster of villages, no fear, but you would find material enough for tragedy as well as comedy;" and her 'Jane Eyre' is, as Hugh Walker tritely puts it, † "the wedding of romance to realism."

'Jane Eyre' was in constant demand. Several editions were issued in quick succession. It had so early as 1848, 'a great run' in America. The authorship had after some time, of necessity, to be revealed to the publishers; but to the public she continued to be 'Currer Bell.'

IV. SHIRLEY.

‡ "Shirley's character is one of the finest and strongest in the whole realm of fiction."—W. J. Dawson.

'Shirley, C. B.'s second novel, was published in 1849. When the book was in preparation the author had two saddest bereavements in the deaths of her sisters Emily and Anne with whom she lived in happy intellectual companionship ever since childhood. The chapter called 'The Valley of

* The Life of Scott—Lockhart.

† The Literature of the Victorian Era—Hugh Walker.

‡ Makers of English Fiction—Dawson.

the Shadow of Death' in the book corresponds with this chapter in the author's life of sad and sore bereavements. It was with very great effort that she could finish the story.

The first point that strikes us as we finish reading 'Shirley' is that it presents a greater variety of types of character than Jane Eyre. The plot here covers a wider ground. There is not also that disproportionate treatment that we have in 'Jane Eyre.' The plot is thus an improvement in design over Jane Eyre; but there is not that fusion of the parts into the whole that unity in Shirley that made Chesterton assign the palm to 'Jane Eyre' as a better story than 'Vanity Fair.' Although there are quite a number of well-managed scenes in 'Shirley,' yet some of these scenes stand quite apart from one another and do not form part and parcel of the main plot. We may even say that the story will not lose its effect as a story, if a few of the incidents such as 'The Curates at Tea,' 'Mr. Donne's Exodus,' etc., are removed from the book. But these scenes have other purposes to serve. These are the few, very few, in fact, in all C. B.'s writings, where something like an attempt at humour is perceptible. But of her humour we shall speak elsewhere.

After this much is said with regard to the structure of the book as a work of art, the rest of the criticism is, we think, bound to be wholly in an appreciative strain.

'Shirley' is not written in the autobiographic form in which 'Jane Eyre' and 'Villette' are. But it is replete with what is called 'local colour' more than either of these. Several of the incidents in the story could not escape detection. The three curates were Messrs. Smith, Grant and Bradley; the Yorkes were the Taylors. The agitation against the mill-owner is a new version of the risings of

the Luddites. In fact the reference to local events and local people is so explicit that a *Haworth man living in Liverpool singled out Haworth as the author's place of residence. And in Haworth who could write such books except 'The Parson's Clever Daughter'? Thus the identity of Currer Bell with C. B. was made known to the world.

In addition to this sufficing of the novel with Yorkshiremen, Yorkshire incidents and Yorkshire atmosphere we have her own spirited and high-souled sister Emily, of whom Matthew Arnold wrote

"Whose soul

Knew no fellow for might,

Passion, vehemence, grief,

Daring, since Byron died

That world-famed son of fire—she who

Baffled, unknown, self-consumed;

Whose too-bold dying song

Shook like a clarion—blast my soul!"

transformed into the Shirley of the novel. Indeed the coincidence extends to the dog 'keeper' which was Emily's pet and to a dog-bite incident in which Emily had the rare presence of mind to burn the skin and apply the bandage herself.

The characterisation in 'Shirley' is even more admirable than in 'Jane Eyre.' Minute details are furnished with regard to the action of every character and the mental analyses are done in a manner which it is hardly possible to excel. The book abounds in easy skilful touches that vivify the accompanying descriptions.

Shirley's clear-headedness, her strength of mind which could disregard all conventions in times of danger and emergency, her gentle

* Referred to in "The Brontës"—Miss Flora Masson.

affection towards Caroline, her reverent regards for her tutor Louis Moore (afterwards her lover), her benevolent motives—all these invest her with a distinct charm, that is entirely her own.

Robert Moore, the mill-owner, is again another type of character that has been very skilfully drawn. Beneath the outer crust of what seems to be indifference both to the hardships of the workmen and to the love of Caroline, there is a heart that is susceptible of tenderest feelings. He procures for the honest workman William Farren a situation as a gardener in a friend's house, when only the previous day he (Robert) resolutely told him "I will never give in." Again when the villain who shot him from the back died "Robert gave a guinea to his wretched widow to bury her husband." One is tempted to exclaim,—here is human nature, as is the human face, turned divine!

The mild and unobtrusive character of Caroline, the difficulty she feels in understanding Robert's love for her, the mingled feelings with which her heart is consequently agitated, her position in the house as the solitary female with an uncle, who, though not unsympathetic towards her, shared with others of his time, his prejudice against women as a class, the sudden outburst of filial affection—so long pent up in her heart—when Mrs. Pryor reveals herself as her mother, are no less remarkable.

The other characters in the story, Mr. Helstone the rector, the three curates, the old maids, Mrs. Pryor, the Yorkes, young Martin, William Farren are all drawn in an able and life-like manner.

The book is full of noble sentiments that are expressed in gem-like sentences and

placed in appropriate setting. We quote a few passages below:—

Speaking of the *suffering workmen* of the day the author says,—

"As to the sufferers whose sole inheritance was labour and who had lost that inheritance—who could not get work, and consequently could not get wages, and consequently could not get bread—they were left to suffer on, perhaps inevitably left. It would not do to stop the progress of invention, to damage science by discouraging its improvements; the war could not be terminated; efficient relief could not be raised. There was no help then; so the unemployed underwent their destiny—ate the bread and drank the waters of affliction."

Here is what she has to say about "*cruel masters*,"—

"Rules are necessary in such cases. Coarse and cruel masters will make coarse and cruel rules which at the time we treat of at least, they used to sometimes enforce tyrannically... Child torturers, slave masters and drivers, I consign to the hands of jailors. The novelist may be excused from sully his pages with the record of their deeds."

Her remarks about *true poetry* are worthy of her genius,—

"It seems to me—that nobody should write poetry to exhibit intellect or attainment. Who cares for that sort of poetry? Who cares for learning—who cares for fine words in poetry? And who does not care for feeling—real feeling—however simply even rudely expressed?"

This is how she teaches the *right use of money* to her readers,—

"I can do a good deed with my cash. My thousand a year is not merely a matter of dirty bank notes and jaundiced guineas (let

V VILLETTE.

"There is something almost preternatural in its power"—George Eliot.

This, the third and last novel of C. B., was published in 1853, four years after '*Shirley*.' All the time she was writing it, she was experiencing a sense of dreary loneliness. She visited London on three or four occasions and moved in terms of friendship with such celebrities as Thackeray and Mrs. Gaskell. But the London society was not the one quite after her heart. We might therefore expect the book to be tinged with a sort of sombre melancholy and cynical discontent about the world. But it is not so; and the explanation is not far to seek.

While writing '*Villette*,' C. B. was living her Brussels life over again. Lucy Snowe, 'the English teacher' in the French school at Villette is the author herself who was 'English teacher' in Mr. Hëgar's School at Brussels; and Mr. Hëgar, the Brussels Professor of Rhetoric is transformed into Mr. Emanuel, Professor of Literature in the novel. The particulars given in this book about school-details—in the two former books also we notice this feature though not so explicitly in '*Shirley*'—could not be given by one who was not himself a diligent student and a successful teacher. The religious conflict which she felt at Brussels is transformed into the one between the 'English teacher' and the continental 'professor'; and the 'confession scene' again is an exact repetition of what she herself did at Brussels when her mind was in a sorely distressed condition.

It is true that such unbounded enthusiasm has now cooled down. But the book has merits of a high order other than what interested the author's contemporaries and these make it worthy of a secure place in the history of English fiction in spite of the incoherent character of its plot.

* Referred to in "*The Brontës*"—Miss Flora Masson.

'*Villette*' is thus more explicitly autobiographical than '*Jane Eyre*' is so far as the

incidents narrated in the books are concerned. But 'Lucy Snowe' is not as near to the original, mentally, as 'Jane Eyre' is. In 'Villette' C. B. recounts more of her experiences than of her feelings.

The character of Ginevra Fanshawe, with her fondness for vain show and display, with her dislike of occupation of any description, with her mind always bent upon courting the admiration of the other sex, has been introduced for the first time in C. B.'s writings. Ginevra is indeed that "unsubstantial feather," that "mealy-winged moth" as the author's 'double,' Lucy Snowe, thinks of her. Very probably C. B. noticed a character of this kind in one of her London visits. Ginevra Fanshawe serves as a foil to set off Lucy Snowe and Pauline.

Madame Beck's management of the school, the mental agitation of Pauline's father who thinks that, with the marriage of his daughter, he would lose his 'treasure,' the considerate arrangements which M. Emanuel makes in secret to provide Lucy Snowe with a school of her own before he leaves for foreign shores, the mystery of the 'nun's' nocturnal visits are all depicted with consummate skill.

Of the 'Theatre Scene' competent critics speak in terms of high praise. Says W. J. Dawson "with its vivid and overwhelming description" (this scene is) not merely one of the finest pieces of dramatic criticisms ever written, but one of the most powerful pieces of imaginative writings in the language."

Hugh Walker says in this connection: "had she been chosen and had circumstances favoured old, she might have been one of the greatest Marcellines."

able the weaving out of the plot of this the literary device known as 'suspense' The on successfully employed; Pauline, are ex

left a girl of six years, is taken again when she has become a full-grown girl and the incidents about her love relieve the monotony of Madame Beck's school.

If 'Jane Eyre' lacks breadth and proportion and if in 'Shirley' the reader misses integral unity in the structure of its plot, here in 'Villette' in which these faults are greatly compromised. Nevertheless, strange as it may seem, the book is not as interesting as either of these. The story is not good as a story. In fact there is no story at all—no main end to which the various side-issues converge.

There are however several little scenes in the story that are, every one of them, remarkably good. We shall quote here one or two such scenes.

The religious discussion between the Protestant Lucy Snowe and the Catholic M. Emanuel ends in this manner,—

When I had so spoken, (the 'I' is Lucy) so declared my faith, so widely severed myself from him I addressed, then at last came a tone accordant, an echo responsive, one sweet chord of harmony in the two conflicting spirits.

"Whatever say priests or controversialists" murmured Emanuel, "God is good and loves all the sincere. Believe them what you can; Believe it as you can. One prayer at least we have in common. I also cry"—(this prayer is in French.)

After some thought he again spoke,—

"How seem in the eyes of that God who made all firmaments, from whose nostrils issued whatever of life is here or in the stars yonder—how seem the differences of men?"

This is what the novelist writes about how Pauline served as a connecting link of affection between her father and her husband—

'Pauline' sat between the two gentlemen. While they conversed her little hands were busy at some work—with the tiny pair of scissors glittering in her lap she had severed spoils from each manly head beside her and was now occupied in plaiting together the grey lock and the golden wave. The plait woven, no silk thread being at hand to bind it, a tress of her own hair was made to serve that purpose. She tied it like a knot, prisoned it in a locket and laid it on her heart.

"Now" said she, "there is an amulet made which has virtue to keep you two always friends. You can never quarrel so long as I wear this."

An amulet was indeed made, a spell framed which rendered enmity impossible. She was, become a bond to both, an influence over each, a mutual concord. From them she drew her happiness and what she borrowed, she, with interest, gave back.

We wonder if a softer and more delicate touch is ever possible in literature—perhaps in first rate poems, but seldom in a work of fiction.

VI SOME GENERAL OBSERVATIONS; CONCLUSION.

With 'Villette' C. B.'s literary career comes to a close. She was married in 1854 to Mr. Nicholas, the Haworth curate, who had been proffering his love to her for a long time. Her married life was destined to be a very short one; for the next year she died, the last words she whispered to her husband being "I am not going to die. He will not separate us. We have been so happy." She was but thirty-nine years old when she passed away. It is a very lamentable circumstance that her married life was so very short. Had it been longer she might have

made her experiences of "so happy" a life the basis of other novels. In her three novels 'Jane Eyre,' 'Shirley' and 'Villette' she had exhausted her slender stock of experience; and her quick imagination, it is not unnatural to suppose, would have transported this new experience of hers to books of a less austere and more pleasing character. But we are indulging in a speculation.

We have noticed the chief characteristics of each of C. B.'s three novels under separate headings; we shall here make a few general observations with regard to her writings as a whole.

What she wrote is, as we have seen, mostly what she herself felt and experienced. Her writings reflect 'the spirit of the age' in which she lived as also the spirit of the land. The industrial unrest, the marked party-spirit in religion and politics, the ill-treatment of school children are all faithfully mirrored in the pages of her works.

Brought up in an out of the way parish, estranged by peculiar domestic circumstances from all social life, with the advantage of a systematic course of education and training denied to her, it is astonishing how she was able to write books "that gripped at the heart strings of the whole reading world." The fact is she was endowed by nature with passion and imagination, both of which are certainly more essential to the writing of a good novel than a mere understanding of the best 'technique' of the art. Her want of culture, paradoxical as it may sound, in a way contributed to the success of her writings. A few years later, George Eliot with her superior culture became reflective in her novels, and because of this reflective element, George Eliot's novels, especially her later ones, lack the spontaneity and naturalness that pervaded

the writings of her less cultured sister-novelist.

Again, George Eliot's language is involved and thought-laden. The effects of her philosophising are seen in the language she has used. But with C. B., one of her chief merits is the excellence of her style and language. Her sentences keep apace with the rapid outflow of feelings. Her style is at once racy and lucid. There are several excellent dialogues in each of her novels. Her prose is often so impassioned that it is like poetry. She frequently expresses fine ideas in sentences that are terse and simple; and she occasionally coins words and phrases to suit her purpose.

But in both C. B. and G. Eliot there is this feature that is common. They both hold, in their writings, that truth and duty are more important in life than beauty. It is possible that G. Eliot caught this idea from C. B. because no English novelist before C. B. had made truth and duty his sole theme. G. Eliot's literary career followed so closely on the heels of C. B.'s that it is impossible for her (G. E.) not to have felt the powerful influence of C. B. And we know that G. Eliot remarked of 'Villette' that "there is something almost preternatural in its power."

The reference made here to George Eliot is not meant to insinuate that she is a novelist of lower rank than C. B. By the volume of her writings, by the range of the field she has covered, by the higher plane of thought that pervades her works, and by her undeniable gift of humour which is both keen and polished, George Eliot is unquestionably entitled to a higher place in English literature than C. B.

Speaking of the humour of G. Eliot we may make here some observations about the

humour of C. B. We may not be far wrong if we dispose of her humour with the remark, —Humour in C. B. 'there is none.' This want of humour is an outstanding defect of her writings. She *knew* that the saving salt of humour is a most desirable ingredient. 'In Villette' while describing the character of St John, she says,—

"He had an *acute sense of humour* and was the finest company in the world—when he could forget Miss Fawnshawe." But she *could not use it* herself, because of her temperament and training. To her, always Life is real, Life is earnest."

In 'Shirley' there are a few passages wherein there is some play of humour. But the humour turns more on the physical aspects of the characters than on their mental peculiarities and it is not of a very delicate and refined kind. The portion that deals with Mr. Donne's voracious appetite becomes even coarse. There is perceptible also the tendency to overdraw the picture for the purpose of producing effect.

It seems likely that in this matter the author was influenced by Charles Dickens. If so, she had borrowed from that past master of humour some of 'his besetting faults.' Had she copied "the wealth and subtlety of his contrasts, the fine aim of his exaggerations, the presence of mind displayed in his satires..... the combined audacity and microscopic delicacy of his shadings in caricature..... the suddenness of his strokes at one moment and the cumulative perseverance of his touches at another" at any rate, a few of these, that would have added to the merit of her work.

But as was observed already humour was not her province. To demand it of her is almost

* 'Contemporary thought and thinkers'—R. H. Button.

the same as demanding Mathematics from Macaulay or History from Newton.

C. B.'s male characters are, it is said, not well-drawn. G. Eliot too has been accused of a similar fault. Male characters drawn by women-novelists cannot be expected to be perfect. The psychology of one sex cannot be thoroughly grasped by beings belonging to the other sex. Can a male-novelist draw a Jane Eyre, a Shirley, a Maggie Tulliver or a Mrs. Poyser? we think not. The critic here forgets that the true aim of criticism, is * a disinterested endeavour to learn and propagate the best that is known and thought in the world" and demand something which the artist cannot give.

Let us turn our attention now from what is *not* in C. B.'s writings to what *really is* there.—There is force in all her writings; there is passion and imagination; there is a ring of sincerity in every note of her utterance; there is a genuine sympathy for the cause of the poor and there is a genuine support for the

* 'Essays in Criticism'—Matthew Arnold.

reform-movement in all directions; there is also found in abundance the pathetic element which is introduced most skilfully without one shocking scene of hatred and revenge, murder and bloodshed or the like; the character-sketches have been almost perfectly done; between the author's personal life and her writings there is a very intimate connection. To add to these, there is the charm of literary excellence.

We do not find several of the qualities enumerated above in the novels that preceded her. Living about the time when the masterpieces of English novels, those of Thackeray, Dickens, Mrs. Gaskell and George Eliot, to mention only some of the best names, were enriching the literature of English Fiction C. B. contributed her own share to it. Quantitatively viewed hers is not a big addition. But qualitatively,—and this is by far the more important—this addition is of a no mean order and entitles the author to a place of honour side by side with the great Victorian novelists in spite of the weaknesses that have been noticed in her writings.

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TWELFTH NIGHT

With Introduction and Notes

BY

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THE UNIVERSITY OF MYSORE.

BY AN EMINENT EDUCATIONIST.

UNLIKE so many of the other proposed new Universities in India, *e.g.* the Muhammadan University of Aligarh, the Hindu University of Benares, the Dacca University, all which seem to require many years of preliminary talk and advertisement, prolonged and painful gestation, the University of Mysore will be born very soon as it was conceived. We congratulate His Highness the Maharajah of Mysore and his Councillors on the business-like promptitude with which they have set about the work of creating a new University. The authors of the University scheme have deliberately aimed at avoiding in the Mysore University some of the defects for which the Madras University has become notorious. One such is referred to in these terms: "The present English course involves a minute study of detailed texts, including the works of minor poets and writers, and the acquisition of philological and antiquarian knowledge." In other words, the Madras University is the seat of pedantry, only it is English pedantry instead of Sanskrit pedantry, minutiae of old English Grammar instead of intricacies of Panini, memorizing of minor English poets and major English critics instead of memorizing of Kavyas and Alankara Sastras. "Such a method," says the Mysore Government communique, summing up in one plain sentence, the most severe condemnation of Madras University methods, we have seen, "does not add to the practical knowledge of the student, and it is pursued at the sacrifice of a sound knowledge of the vernaculars and of a real mastery of the optional subjects," and we may add, at the sacrifice of a work-

ing knowledge of the English language itself, for we have known of men who have passed the severe tests of the Madras University English Examiners in M.A., who are learned in old English and can also quote Crashaw and Donne, but speak and write incorrect and unidiomatic English and whose minds have not been touched by the ennobling moral and spiritual ideals embodied in English literature or by the independence of outlook which is the most valuable result of its study. "In the Mysore University, therefore, it is proposed both to simplify and reduce the English course by a rational study of serviceable texts, detailed and non-detailed, and exercise in English Essay-writing in the first year's course, and by reducing considerably the detailed study of English authors in the course of the succeeding two years. The standard in English reached at the close of the first year will be made equal at least to that of the present Intermediate Examination. In the English course of the second and third year, the object will be to encourage a love for what is best in English literature, to enable the student to imbibe the culture of the west and to give him something of its critical spirit and method." The quantity of English work done in the case of the student for the B.Sc. degree will be confined to two or three hours a week of special training in the art of writing good, simple English.

While this and several other features of the proposed Mysore University display the anxiety of its promoters to avoid the well-known defects of the Madras University, we feel bound to point out that the organization of the Mysore University perpetuates the blunder of not providing for an easy Pass degree side by side with a stiff

Honours degree. In Madras there are good Honours degrees but there are no Pass degrees. What ought to be Pass degrees are a cross between Pass and Honours degrees; and hence, year after year the Madras University turns out so many more "failed" men, discontented and discouraged, victims to the bad organization of examinations in Madras. We consider that the want of differentiation between Pass and Honours degrees is a very grave defect in the Mysore University. The result will be either the Mysore degree will deteriorate in value or the number of failures will swell year after year—either consummation not to be devoutly wished for. We hope the Senate of the Mysore University will remedy this defect when it starts passing its regulations.

Another objectionable feature we find in the Mysore University is its constitution. Says the Notification which describes the scheme:—"The excellence of such an institution rests in the last resort on the worth and efficiency of its professors and teachers; and this body, which will be kept at as high a level as possible, will have a very large share in the government of the University. But for securing vigour and efficiency of administration and to prevent its falling into a narrow groove, a certain amount of outside influence is necessary, and this will be supplied by the introduction of other elements into the governing body." We protest against this dictum of the Mysore Government which says that a body of professors and teachers of a high level of worth and efficiency cannot exercise vigour and efficiency in the management of the affairs of the University without outside influence and has to be saved from falling into a narrow groove by other elements being introduced into the governing body.

Apparently whoever drafted the words quoted above intended it to embody in one pithy sentence a condemnation of the Madras University. But the Madras University is run by a body of European professors who are possessed by the demon of efficiency and who will gladly see that the majority of its *alumni* fail year after year rather than their own pet ideas of an impossible perfection be sacrificed. But "outside influence," which means the interference of the layman, the non-educationist, has not in the case of the Madras University, been of any real use; in fact the difficulties of the Madras student have been as much due to the tampering of the layman in University affairs as to the want of sympathetic imagination on the part of the non-Indian professor. The real solution of the difficulty consists in providing for a preponderance of Indian professors in the managing body of the University; this alone will enable the Mysore University to avoid the difficulties which the Madras University is suffering from.

Another objection we have to the Mysore University scheme is that nomination looms large in its constitution. The Vice-Chancellor will be nominated by the Chancellor. This idea is borrowed from the Indian Universities Act. In British India, the Government wishes to retain in its hands as much power as possible and so is unwilling to let the Senate elect its head; the political reasons for this do not exist in the case of the Mysore State and we therefore advocate the policy of the periodical election of the Vice-Chancellor by the Senate. The first Fellows of the Mysore Senate will be nominated: this is perhaps unavoidable; but there is no justification for the perpetuation of a partial nomination. Nomination and nepotism cannot but always

go hand in hand; a much better method will be to declare that the holders of certain professorships will be *ex officio* Fellows and all the rest elected, some by the Faculties and others by the Registered Graduates. These and other minor defects notwithstanding, we congratulate the Mysore Government that it has kept its reputation of a model State in thus starting a University of its own, soon after the inception of the idea. The promptitude shown is an object-lesson not only to other States but also to the Imperial Government, whose University schemes seem to require such a large amount of debate and discussion and delay.

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STORY-TELLING IN HISTORY.

I WOULD begin my essay with a foreword.

The subject of story-telling is of immense interest to me. It is so full of happy associations. It was Mr. K. Paramu Pillai, M.A., now Professor of English in the Maharaja's College that first drew my attention to this subject. I can never forget the paternal solicitude and joy with which he watched the increasing interest that I began to take in story-telling. He used to call me "a little specialist" and I knew and he knew it too how ill I deserved the title. But it was only a piece of tactical appellation. It, then, created in me a desire to deserve it and that exactly was his purpose. Sometimes he would grow more practical, if less diplomatic and at these moments, he would show how "Once there lived a big frog and a small frog up there in that tank" ought to be told to children and such demonstrations never failed to thrill myself, though to become a child again, I would, then, have had to walk back nearly a score of years. So bewitching were those words in his mouth.

I would refer those who are interested in story-telling to two fine publications of Messrs. Harrap and Co., London. Their author Sara Cone Bryant is a born story-teller and her two volumes give not a little insight into the art. She gives an example of how a hostilely shy child was at last conquered by a tale about the tingly-tanglies—the smart little tingly-tanglies that lived in the child's curl. Indeed, many are the instances to show the beguiling effect of stories on children. The purpose of the following essay is to consider their adaptability in the High School with special reference to history and the teaching of that subject.

History is a striking contrast to other and more well-defined subjects. There is romance, life and unruffled science in it. The laws of history are as the whims of man, for it is man that makes history. Its progress is sometimes undeterminable; its vagaries are often inexplicable. Man is as much guided by instinct as by intellect and the great men who loom so large in the pages of the past did rarely listen to reason. Instinct or intuition was their trusty weapon and with it they fought and generally won. Eminent scholars have tried to bridle this rather self-willed history and to make it more scientific and they have tried not in vain. But with all their success history yet remains more history than science. I shall not undertake to define what it is; I once undertook and the result, you know, was but what naturally can be expected of such an almost super-human task. It was a fiasco and I am not ashamed of it, for it was a success too, albeit a very strange one. I learnt, after all, that history is better undefined than defined. The fact is that all know what it is and none need be told that Gibbon and a few others form a model for all times. But it is good to emphasise what Gibbon has done to history. He has at once raised its dignity and enhanced its seriousness. His rare scholarship and bewitching art opened new and charming vistas for the scope of history. Indeed the witchery of his magic wand of a pen almost metamorphosed the subject and it remains to-day what he has left it—"the illustration of philosophy." The teaching of so vast a theme well deserves a discussion.

Success in our profession is a varying and uncertain quantity but if there is one thing more essential to success than another, it is the degree of interest that the teacher takes in the subject he teaches. It is decidedly so in history. Impressive statement of any fact is well nigh impossible without feeling it

beforehand. Teaching history directly, simply, forcibly and without affectation is possible only when the teacher's mind is stirred by it and is soaked in it. To teach it dramatically and with humour, he should be able to feel his kinship with the past and perceive the humanity of past events. The teaching of history is largely taken up with telling, notwithstanding the inspectorial anathema that often sends to hell such as do not understand that telling is not teaching, and it is just; only a certain amount of latitude has to be allowed to the history lesson where experimental demonstration is rarely practicable. Telling and questioning with the black-board and the white chalk for an occasional diversion form the few tools of the history teacher. Telling, of these, is the most valuable and on it depends the usefulness of the others. If telling is blunt, questioning becomes barren and no black-board can much improve the matter. Narrate the events slowly and in simple language, dramatically and in a living voice, full of gusto, with no digression or philosophising and you give the boys both enjoyment and instruction. Question them now; you will see that they have followed you even beyond your expectations. A black-board illustration or summary would be a fine finishing touch and make it a very successful and impressive one.

Telling as expounded above is the very hinge of a history lesson. Some are born teachers with a taste for telling things nicely and well. But all are not gifted with this precious metal legacy. What we lack at our birth can, however, be earned by industry at a later stage. The saying goes, "Poets are born, Orators are made" but our profession is more elastic, for, some teachers are born and some are made. If the callow recruit

fumbles or falls short of his duty, it is because he is callow; ere long he would have feathers and he cannot fumble for ever. The art of telling, if it is not one of our inborn gifts, is not for that reason beyond our reach and can easily be wielded with a moderate amount of application. Sufficient for the day is the evil thereof.

You may perhaps wonder why I emphasise so much about *telling*. One of the objects and that not the least important, of teaching history in the High School is to create in the boys a love for the subject and a desire for more detailed study. If you ask them to memorize events and dates in history, they will soon begin to hate the subject and half the educational value of teaching the subject goes. Successful teaching is a combination of enjoyment and instruction and where you find them together, there you have the maximum of educational aspirations realised. Now the question naturally rises, how can we give both instruction and enjoyment in teaching history? The question is rather long but the answer is as short as the question, is long. "Give them stories" is the three-worded, simple solution. Perhaps this is the reverse of what we expected. A story is a fanciful fiction while history is a faithful narration of facts. Can they ever agree together? Give them stories, not any stories though, not the fairy nor the nonsense tale but any historical story bearing on the lesson you teach. The place of stories that live in the telling in the hands of a skilful story-teller is no more a controversial subject. To-day their value is appreciated to an extent unprecedented in the annals of education. It is, however, a sad fact that in India this healthy mode of feeding the soul has not yet been universally recognised, still less adopted.

The Indian, of all men, has a praiseworthy zest for stories. Care-worn and over-worked as he often is, his soul is not dead to the beauties of the fine arts. Many a half-starved, ill-housed family is brightened up, when, after the dusk, the old—very old grandmothers sitting on the wind-swept verandahs before flickering lights begin to unload their store of primitive tales. The children flock around them struggling to get nearer them; the men in the meantime are irresistibly drawn towards them and the younger generation of women whom most delights move not, ere long, come poking out of dingy rooms and stand within hearing distance from the fascinating spot. This is an innocent amusement and ought to be introduced into the classroom, if for nothing else, at least for its bracing effects.

Before considering the specific uses and aspects of what is termed the historical story, let us try to understand something about stories in general. What is a story? I shall not define it except by saying that a story is a story. There is something abstruse about definitions in spite of all their pretensions and it is best to avoid them. But I will set down some of its characteristic features and so far risk the clarity of what I say. A good tellable story which all like will have a series of action quickly succeeding one another and these will be so vivid and striking as to engross altogether the attention of the told. The story must not solely deal with fancied realms and fancied beings. It must not be wholly metaphysical or ultra-mundane. It must be rich in familiar imagery without being too common. Skilful touches and shades of mystery judiciously introduced into the story can preserve it from being too familiar or too fanciful. Repetition of the incidents in a

story is very agreeable, the more so the younger the boys you deal with. Besides all these a degree of fun, humour, or pathos is found in all good stories. The story when told must have the power of sustaining interest, and for this the beginning should not too plainly show what the end is likely to be and the denouncement, if possible, ought to be a tickling surprise and a heart-filling revelation. Such stories, of course, are not intended for children, they are for older boys of a more mature mental development.

A short story, therefore, is just like a poem or a play. "It is a work of arts" to quote a versatile writer and its value lies in its artistic beauty and the enjoyment born of such duty. A poem is read and admired for the gush of feelings that comes with the reading and understanding of it and that so satisfies the inner man. A poem that does not tone the soul, a statue that does not fill the eye, a tragedy that does not pleasingly awe and inspire our minds, a story that does not set on foot fine desires and sentiments, whatever be their merits otherwise, have all alike failed in their primary object of awakening and extolling the spirit. This vitalizing, broadening and refining of the spiritual atmosphere is one of the universally accepted objects of a comprehensive system of culture and herein lies the chief educational value of story-telling. "The chief educational value" I said and there are others not in any sense inconsiderable if not so important: I believe that the review of one or two of these may not, in this connection, be out of place.

The need for discipline is beyond controversy. An undisciplined or an ill-disciplined class can receive no instruction properly so called. There are, it seems to me, two methods of maintaining discipline. It can

be done either by authority or by mutuality of good-will between the teacher and the taught. Authority at best can maintain only sham discipline. Behind the muffled mouths, the undisturbing limbs and frames are potent forces of rebellion which may at any time break out and baffle authority. Grant that it does not, even then, there is little reason to be proud. Discipline, it must be remembered, is not an end in itself. It is only a means to higher and nobler ideals. Its immediate aim is attention on the part of the pupils and ultimately it looks in for no less a thing than the triumph of teaching itself. With outward conformity to rules and inward disobedience, no real attention can be had and teaching is doomed to failure. The strained discipline enforced by an occasional flourish of the cane, by the detective eyes, by judicious gravity, by diplomatic reserve or by threats of all degrees and kinds is only strained and superficial and lacks the spontaneity and natu^ralness of really efficient obedience and order. Armed authority here too fails, as it certainly does in the practical world. Mutual good-will is the very pith of true discipline. The boys often mistake the teacher for a monster. Show them the human traits in your character. There is no harm if they understand that we are of the same species as they and that we are only bigger with perhaps bigger heads and stouter hearts and that there is nothing preternatural in us. Indeed, they ought to give them now and then what they like best and let them know that you also like those things. In other words, tell them stories without being hampered by any false sense of dignity, feelingly, gracefully, unreservedly and you shall not go without reward. You can have the best of relations that ever existed between the instruc-

tors and the instructed and you can well be proud of the splendid discipline you have in your class. Again the average school boy, it is to be feared, is over-taxed by the versatility of the ordinary school curriculum. In the midst of the tense school work, the boys welcome the story-teller with all joy. He comes as a recreating and soothing agent, and the more regular his visits, the reader, the boys are to digest the stiff material of the work-a-day class. And there are other uses too but time and professional stress would have them left alone I shall not dispute their authority and so I pass on to what is more pertinent to the matter in hand.

The historical story shares both the usefulness and some of the characteristic features of stories in general. Confined as it is within narrower limits, it very often falls short of a work of art. From the view point of education, beauty is rarely its chief merit. It is not impossible, however, to draw beautiful stories from historical stratum. It is only a question of skill and diligence of the artist who set himself to the task of weaving tales connected with history. But the primary object of the historical story is not the charm that comes of art, even it be a work of art. The presentation of past events in the rigid scientific form lacks reality and humanness. It is the part of the historical story to humanize these events. All know that history is the story of man and some may rightly doubt the need of humanizing the story of man. "A strange need" they may rightly say but it is no less real. It is a hard thing to realise the facts of history. We know and our boys too know that Alexander is perhaps the greatest general the world ever saw. His name and his deeds have been impressed on their minds beyond forgetfulness. Neverthe-

less the fact of his having lived and conquered has scarcely been realised by them. Alexander is more a marvel than a reality that once was. Poor Alexander! condemned to seek his fame in the realms of fancy or fable while no body could deny that he once swayed this solid tangible world. And poor Porus that unlike Ambhi fought like a king and proudly submitted, ay, he too shares the fate of his magnanimous conqueror whose admiration and friendship it was his unfortunate lot to gain, for apart from association with the greatest general, he could have stood on firm earth, now, as it is, he is only half fact, half legend. Again to many men and most boys Caesar of history is more mythical than his idealised prototype in Shakespeare. Nearer home is the example of the Vikramaditya of folklore. May he remain where he is an ideal of kingship. Why hope for a coin or a copper-plate to reclaim him to history. The moment he enters this science, he loses the romantic tincture about him without establishing his reality. Better far to reign in Romance than to serve in History with a dubious existence or an amphibious life. For such, admittedly, the boys take the real historical Vikramaditya—the great son of a great warrior king. Such, in fact, are to them all history except the very recent.

Indeed, the need for humanizing and vivifying past events cannot be exaggerated. It was only the other day that this truth struck me with unusual force. In the course of a lesson on the fratricidal war that broke out in the days of the senile Shajahan, the boys welcomed the four brothers with callous indifference and not without disgust and before the great Puritan Emperor was clean gone from my mouth, there outburst a sneer that well nigh drowned that admirable ascetic. It was

no surprise to me, howbeit its unseasonableness—why those four men that once lived were no more to them than Alpha and his brothers in the Geometry class. For them Aurangzib like Delta had no real existence or humanness about him but unlike Delta was even unfit to denote an angle. Their attitude towards him was very reasonable, if ever such attitude can be. I tried to give the unfortunate four some flesh and blood and that, I believe, mended matters a deal. On another occasion, during another lesson, I had to refer incidentally to the great name of Sivaji. I said, "Sivaji" and all at once every eye was turned towards a rather lubberly boy made more than ever a lubber by the universal look fixed on him. They used to call him Sivaji and never was a man so misnamed, never were two men more unlike. I told them that if I had one thousandth part of the greatness of Sivaji, all the world would account me a hero and that I would be happy to die the earlier, lest by living long I should commit any thing that might tarnish my fame. The boys showed a sad ignorance of the real 'unmisrepresented' Sivaji, in spite of the fact that several lessons about him had been given them before. In short, ordinarily history ceases to be history in the teaching for it lacks the impression of life and truth. It is the main purpose of the historical story to supply what the teaching of history so lamentably wants.

And there are other purposes too. One important object of every history lesson should be to bring home to the young the relation that subsists between the dead past and the living present. A good story culled from the pages of history and into which are introduced the personal feelings of the teller certainly "deepens the sense of our relation

to past lives." Further, a dry narration of facts is a bugbear to the average student nor is too much stuffing when all said a good thing. It veritably strangles the freedom of young minds. Light history in the form of interesting stories creates in the young a relish for the subject and stimulates their dormant capacity for more detailed study. History, it has been pointed out, has nothing of the paraphernalia of science. In dealing with the latter both interest and instruction can be given by a well-arranged system of experiments. Again in science there is always a close sequence of cause and effect and a definiteness unknown to history. In the teaching of the latter, there is on the one hand the danger of your lesson verging on sterile dullness, there is on the other, the temptation to take to a windbag eloquence. Here are no test-tubes to ward off a tedium, here are not those causal phenomena that in science so successfully forbid all high-sounding oratory. Verily, here you are between a Sylla and a Charibidis and both have an eye on you. If you steer not through the straight middle, you are doomed. And the straight middle in the teaching of history is the historical story. It can work wonders. It humanizes the past. It brings closer and closer the relation between the past and the present. It makes history popular. It invigorates memory. It avoids monotony. It sustains interest and lastly it does not let any one indulge in the luxury of empty words. Indeed such a potent weapon is worth our possession.

Again the boyish love of hero worship is well-known and it is, undoubtedly, a wholesome tendency that ought to be vigorously encouraged. An anecdote or a striking incident in the lives of great men of history can

be made filling themes for short historical stories. This not merely answers the purpose of stimulating hero-worship but also fixes in the boys' minds some predominant trait in the character of the men. Let me take the cue from the oft-quoted adage, 'Example is better than precept,' and try to illustrate my proportion even at the risk of my example being a bit too long. I will begin with a supposition. Let us take it that we are giving a lesson on the Methodist movement. We will have to deal principally with two men in this connection, John Wesley, its guiding spirit, and George Whitefield, the eloquent preacher. As an example of the wonderful powers of speech that Whitefield possessed, we can advantageously tell the boys the following story:—

You know Whitefield. He was such a great man. He lived in the days of George II and he was the boon companion of John Wesley, why, the same Wesley who founded the Methodist movement and did so much for the Christian religion. Whitefield was a gifted preacher and he could preach to such a big number as *thirty thousand men* and the wonder of it was, all could hear him so well and each one thought that he was speaking to him particularly. His voice was most charming and there was nothing easier for him than to set you a weeping, if he ever wished it. Believe me he could do it by simply uttering the word 'Mesopotamia.' This unpromising, unpronounceable 'Mesopotamia' would in his mouth so touch your heart.

One fine day, with his rare talents so fitted to move the minds of men, he was preaching a sermon. A large crowd had come to attend him and among them was Chesterfield himself. His Lordship, you know, would

not go to hear ordinary men. But you see Whitefield was no ordinary man. With all aristocratic pride and dignity, Chesterfield sat on a chair near the preacher. Whitefield began his sermon. All fixed their eyes with pricked up ears and rapt attention on the elegant form of the melodious speaker. In the course of the sermon he began to tell a story. I will tell you the story in his own words. "There once lived an old man. He was so old and weak that he could scarce walk. He was blind too and could see nothing at all. But he was honest, indeed, more honest than most of his richer brethren. He had no brothers, no sisters, in fact no body to help him but he had a faithful friend who was not a man nor a woman either. It was a half-starved, lean, yet ever helping old crony of a dog. The old man got a mere pittance for his food by going from door to door with his dear friend for his guide. One day they wandered far into the country. Now the sun was setting in the fleecy west and darkness was coming in upon them. It was time to return and they had to cross a moor ere they could reach their lonely cheerless home. And the moor, it was a bleak, benumbing, dreary wild, and on one side of it was a slippery precipitous steep. The poor old man was now on the moor and his dear old faithful guide, God knows why, I shudder to think of it, against all the natural instincts of the canine species, for once in its life, deserted its master and ran away. In that dark pathless moor, the blind beggar is thus left helpless and on he gropes his way mustering all his failing strength and on and on he moves, and near, nearer and nearer still, comes the precipice. Anon he gropes and moves little dreaming of the danger ahead. Lo! there he goes on to the edge, now on it and now on the

very brink and there, the lean lifeless bare left foot is slowly turning, the last step is taken and down the deep steep—there—and at this His Lordship forgot his rank, ran to the pointed spot, looked down the precipice and exclaimed in agony, "He is gone, good God! he is gone!"

The story, it has to be admitted, will not bear the microscopic scrutiny of a Freeman, nor does it approach the pictorial bravura of a Macaulay. But it answers a modest purpose in the class-room. The magic of Whitefield's sermons is well impressed on the boys' minds in spite of the fiction as to his own wording of the story and they begin to admire his eminent powers of speaking and moving as they justly deserve to be admired. Further they see what the Methodist Movement really was, what the Methodist meant doing and how they strive to do it, in a word, they see the movement in its working and if this is not sufficient justification for occasional indulgence in unhistorical or semi-historical touches in the course of telling a story, I can only fall back and take refuge in what Frederick Harrison puts into the mouth of young enthusiast of Froude—"If the historical romance can do nothing but mislead, the historical ditchwater will only disgust." I am one of those who think that we need not anxiously wait at the gates of History to obtain sanction for every touch and shade and incident in the story we propose to tell. History is a very fastidious, self-willed, grey-haired person and the chances are that we will never get the sanction we want nor even admission to his chamber. In such cases, I think, we can with impunity take the law into our own hands; only we should take particular care not to encroach on the

sanctum sanctorum of history for no reason whatever; to state it without the figure, we should never, never tamper with the groundwork of history, its broad outlines, facts and principles. With this limitation, any historical episode or a series of striking incidents can be put into the form of stories. In Indian history such episodes and such incidents are but too numerous. India had nothing or little to do with the growth of institutions, of civil rights and popular governments and so her history is not much more than an account of an array of great men who now and then rose above the common din and ruled the land. Indian history has not, therefore, yet assumed the rigid scientific form of occidental annals wherein ideas and institutions are the rule and great men the exception. The history of India, from this point of view, is more amenable to the story-teller's art than her dignified European compeer. Here are to be found not a few golden deeds of sacrifice and love, of heroism, of unstinted generosity and of eternal gratitude.

"Many a gem of purest ray serene.

The dark unfathomed caves of ocean bear."

It is the duty of the story-teller, to dive deep and pick up those gems and exhibit them to the class in proper array, deft to myself, I am for giving a number of examples but time and space will not allow it and I have to be doggedly content with one more illustration. For this I would go to the very beginning of our history, to the first contact of the East with the West and try to reclaim poor Porus and Alexander to the boys' 'realm of reality.' Alexander and Porus are too well-known to need introduction. The story runs:—

It is now more than 2000 years since Alexander sent that summons to Porus. He was then a young man not past thirty and he had already become the world's greatest conqueror. From the far Ægean down to the Indus, all the kings and countries had come under his sway. He now resided at Tuxila whose king Ambhi had hastened to the conqueror's camp to do him homage and welcome him to his city. But what was the summons about? It ran, "Oh Porus, knowest thou that Alexander is invincible. Thou canst not stand against him. He tells thee therefore to come and pay him reverence and tribute." To this, Porus sent the following curt and manly reply: "I am, indeed, coming. I shall meet Alexander at my frontier with my whole army marshalled to battle with him."

Alexander like other great men was fond of dignity but unlike most of them he did not resent it in others. In Porus he found a chivalrous foe and he was full glad to fight with him. So he began again his march eastward. It was the month of April. The fierce sun shone all day with scorching heat. Porus was on the further bank of the Jhelum and he had to cover more than a hundred miles and that through a rugged country ere he could grapple with him. But sun and snow, distance and mountains were as nothing to this young man who knew nought but victory. And he reached the Jhelum and saw on the other side his enemy at the head of an immense host of man, horse and elephant. Before him ran a brimming river for the raging heat was melting the snows of the hills. Cross the river he must but alas! his cavalry would not clamber across the flooded stream; his men would be washed away and on the other side stood no friend

but a determined foe, would he wait for the flood to flow and spend its force? No, not he. But he would make Porus believe so while on the scout in search of a ford. And he found it 16 miles up the river where it sharply bent and where on the other side (as he thought) was a green forest to mask his movement. But even Alexander was not above mistakes and "the green forest" was not on the other side.

One dark night with a picked part of his force he marched to the hidden ford and if darkness was not enough to conceal his march, the sky thundered and a storm of rain fell from the heavens. The calm bright dawn saw his men and horse landing on the woody bank but lo! it was not the bank, the other side of the stream; it was an islet and there was yet another channel to be crossed. Alexander saw that he had made a mistake but his mistakes were not above his fertile brain, and ere long another ford was found; horse and man plunged into the stream; the men struggled across the pushing water coming up nearly to the necks and horses swam with their heads alone above it. Thus the army landed at last wet to the skin and dripping. Porus indeed saw the army landing but poor king, he was too far away to come and render opposition. He hurried up, however, but ere he reached the spot the invaders were dry and ready for action.

Our army was a sight indeed. It looked like a city of two hundred towers each elephant standing for one and the men at arms who were placed between looking like walls that linked the line of those buildings. In number it was far superior to the Greeks. In the huge elephants it had a new and powerful weapon that confused the cavalry of the enemy. But elephants are like the ingenious German

poisonous gas. They are as indiscriminate. If the wind turns, the poison kills its makers themselves. The elephants when cooped up into narrower and narrower space became wild and began to tread on friends and complete the enemy's work of destruction.

The Greeks, by no means, however, did win an easy victory. The battle raged fiercely and long. Porus himself seated on one of those huge leviathans now and then rallied his dwindling force and fought and fought and did not run away as did Darius the Persian in battle with the same foe. But fate stood before him and his doom was sealed. So he received wound after wound, one, two and three and his strength began to fail, yet he did not turn back, four, five and six, still he stood seven, eight and nine and he felt a swoon was coming over him and deeming it better to be free than fall a captive, slowly turned his elephant's head and was seen moving off from the field of blood and soldiers dead and dying.

The heaven-born general saw him calmly leaving the field and his heart panted pit up at with admiration for him who so nobly fought. Now he sent Ambhi with a message bidding Porus to go to him. Ambhi mounted his swift Arab horse, rode up quickly and approached Porus, not too near however, for there was enmity between them and Ambhi had deserted his country's cause. He pulled up at a safe distance from his adversary, yet near enough to enable him to do his errand. What with shame on one hand and false pride on the other, he was not able to utter speech for sometime; what with the heart breaking losses he had just sustained and the stunning wounds he had received Porus had become half-dazed and utterly callous to all that hap-

pened around him. He neither heard the tramping of the horse nor saw his old enemy trying to address him. Ambhi at last gasped in a tremulous voice, "Porus, Porus, Oh, listen, Porus." Porus listened not but moved slowly on. Nearer went the messenger and pulled up again. In clearer voice he now said, "Porus, dost thou hear, Oh! stop and listen; Alexander...". Porus heard, and stopped, and wheeled and saw. It was his enemy, nay worse, now a traitor in his eyes. In a moment, he took up his javelin and prepared to strike him. That javelin would have made an end of Ambhi had he not promptly darted out of danger. "Thou villain" said Porus in contempt, "hie thee away with thy vile life." Alexander stood and watched and was not angry. "He kept sending others" but they never succeeded in persuading Porus to visit him. "Last of all Meroës the Indian and an old friend of Porus was sent," Porus heard the generous message. He dismounted and slaked his parched throat, sat for a time and ordered Meroës to lead him, without delay to Alexander.

Porus and Meroës were now advancing and Alexander rode with a few companions in front of his army to meet them. Thus he rode for sometime and then stopping began "to admire the handsome figure and stature of Porus." Indeed Porus was 6 ft. and a half in height. To Alexander's surprise Porus looked gay and was not cowed in spirit. He now advanced to meet Alexander, as one brave man would meet another brave man. And the victor West met the vanquished East and shook hands on equal terms. Then Alexander bade him say what treatment he would like to receive. "Treat me, O Alexander! in a knigly way" was his reply

who was a king every inch of him. Alexander more pleased than ever with the answer said, "For my own sake O Porus, I do that, but for thine, do thou demand what is pleasing unto thee." "Treat me like a king and every thing is included in it was the brimful response." Alexander's joy was unbounded. He gave him back his kingdom and restored him to all honour. He did even more. He conquered another lying near to that of Porus, not for himself but for his royal friend and they remained friends as long as they lived.

Glory to him who so won
Aye to him too who so lost
Rare deeds of hues so golden
Make light battles' bloody cost.

I am not going to dilate on the merits or otherwise of the story thus told. I sincerely believe that stories of this kind serve a very useful purpose in the class room. The dry-as-dust history is impalatable to most of the human species and our boys are no exception. A born scholar may find some pleasure in moth-eaten records but scholars are only rarely found in schools and even if there be one or two, they can and will shift for themselves. But the others, the commonality must needs be cared for and their likes and dislikes should not always be overlooked. You cannot always bore them with genealogical trees, chronicles of small beer, of contending parties, names and dates and save them from idiosyncrasy that comes of indiscriminate cramming. Experiments of this sort are of a piece with deeds of rash daring. History must be enlivened, dramatized, put into the form of stories wherever possible and I cannot think of an apter end than a supplication to those in authority to make this aspect of teaching history compulsory and universal.

N. K. VENKATESWARA AIYAR.

A HIGH SCHOOL AT KARAIKUDY.

[I]t will be a matter for immense gratification to find that, after all, the princely Nattukkottai Chetties have come forward to appreciate education and have found a proper and useful channel for diverting their resources. The one peculiar characteristic feature of this community seems to be to closely adhere to time-honoured institutions as much as possible and if there is any deviation from them in any quarter under any circumstances and if there is any movement in any direction, the community as a body, spares no pains to make the new movement popular and widespread. The last few generations among them have popularised the ideas of founding chatrams and temples and to-day we find about 95 per cent. of the temples and chatrams in the Southern Districts, have a good deal to do with the Chetties' money. Very recently we find a new awakening among them and with the advanced views which some of them hold and with the opening of schools here and there, the masses of this community have to an appreciable degree understood that their wealth resources may be more profitably spent in the cause of education. It must be said to the credit of these Parsees of Southern India that when they once organise an institution, they lend it as strong a support as is generally denied to similar institutions in other parts of the country. They never allow it to die on pain of bringing national disgrace to themselves. With enormous money, it is certain that as imparters and promoters of education none else can compete with them. "Drink deep or taste not the Pierian Spring" is a saying which well applies to the pertinacity of the Chetty class of people.

Even in this 20th century there has not been up to now even a single Incomplete Secondary School, which is a clear proof of

their backwardness in this respect. For instance, places like Karaikudy, Devakotah, which compare favourably with other advanced places in every other respect, and which promise to become first-rate Municipal towns, cannot provide even for a single secondary school.

But the new awakening is not without its tangible effects. At Karaikudy, the centre of the Chetty parts and a very thriving town with a population of 15000, a good number of Chetties have started a school and already endowed it to the extent of Rs. 50000, of which one Mr. M. T. T. V. Vellian Chettiar has contributed Rs. 15000 which is indeed princely. Another laudable thing to be noted is that already one Mr. A. V. P. L. Chidambaram Chettiar, a leading Chetty of these parts, has undertaken to give a building to cost half a lakh of Rupees and has already commenced work.

The school styled the S.M.S. Vidyasala, we are glad to say, is receiving parental care and anxious nursing at the hands of the Chetties and to their credit, the school is a Free school receiving no fees whatever from the pupils. It has already attracted the notice of the Government and the popular and energetic Collector of the District, Mr. Loftus Tottenham, M.A., I.C.S., during his recent visit to the school was much pleased to record how the new school supplied a really long-felt want, there being no such institution within a considerable radius. He was also glad to attest to the generosity and public spirit of the Vice-President of the school, who is prepared to spend half a lakh for the building and also to the alertness and intelligence of the pupils and the capacity of the staff. We pray for similar institutions among the Chetties.

S. G. SUBRAHMANYAM.

THE UNVEILING OF THE BROMIDE LIKENESS OF THE LATE PROF.

S. P. SINGARAVELU MUDALIAR.*

GENTLEMEN,

It is with great reluctance that I consented to take part in to-day's function. I feel as if I were assisting at the funeral obsequies of a son.

Singaravelu, as he was familiarly called, had just joined the College of Engineering when I came up to Madras to act for Mr. Middlemaast in January 1893. He was fresh from the laurels he had won in the Presidency College. At the B. A. Examination of 1893 five candidates were placed in the First class in Mathematics. The first was Mr. M. A. Tirunarayanachariar, now an Advocate of the High Court of Judicature and a member of the Board of Examiners in Law; the second was our lamented friend Singaravelu; the third and fourth, were from the Trivandrum College and therefore strangers to me; and the fifth was Mr. A. S. Balasubramania Aiyar, now acting District and Sessions Judge of Trichinopoly. These facts are mentioned to show what Singaravelu could have done if he had taken up any other profession.

Owing to defective eye-sight, Singaravelu had to give up the Engineering College and join the Teachers' College at Saidapet. After passing the L. T. in 1894, he became a Mathematical Teacher first at Conjeeveram and then at the Presidency College. In March 1904 he was appointed to the chair of Mathematics at Pachaiyappa's, which he filled with great success till his death in June 1914. He was for several years a member of the University Board of Examiners in Mathematics.

As a teacher he was most painstaking, working himself and working his pupils also. He was an excellent mathematician and sometimes found it difficult to descend from the clouds to the earth below. At one time I had occasion to examine the notes of lectures written out by his class and I must confess that many of the questions seemed

*Speech delivered in Pachaiyappa's Hall recently, by

to be much above the standard required by the University. How far the students were able to digest this hard matter, it is impossible for me to say.

As he was far from robust physically, I had to warn him once or twice to take particular care of his health. With him it was all *mind* and very little *matter*. This reminds me of a famous Deputy Collector who could hold a pair of native dumb-bells, almost horizontally, one by each hand. The late Dewan Bahadur S. Sreenivasaraghava Aiyangar, author of *Forty Years' Progress in the Madras Presidency*, happened to call on Sir Henry Stokes immediately after the Deputy Collector. "Did you see the previous visitor," Sir Henry asked. "Yes Sir" was the reply. "Take a lesson from him and use your brains as little as possible and then you will grow strong and fat."

The lessons you have to take to heart from the life of the late Mr. Singaravelu Mudaliar are (1) to have a high sense of duty, doing your duty to the best of your abilities. He did his duty in a quiet unobtrusive way far from the madding crowd of politics, (2) to keep up your studies so that your pupils or young friends may taste of a running stream and not drink from a stagnant pool, and (3) to take good care of your physical body that it may not break down under the strain of your high thoughts.

"You cannot see his like again," says the poet. But modern science enables us to see his likeness and feel that though dead he liveth yet for his pupils who have enshrined him in their hearts and for all who will make him a pattern for their conduct in their daily lives. Let me hope that some such virtue and some such influence will also accrue to what, I am afraid, must be a large majority of people who are content to leave Mathematics alone at a very early stage of their studies.

HISTORY OF EDUCATION IN THE UNITED PROVINCES—I.

By Mr. B. SANJIVA RAO, M. A. (CANTAB.)

When the Muhammadans came to India Hindi was the vernacular of Hindustan and the Nagri character the medium through which the business was carried on, and till the middle of Akbar's reign it was continued to be employed in the Revenue Department of the State. But Persian was the language employed in the Law Courts. When the British Government was established in India, a proposal was made to make English the language in which all the business of the courts and offices was to be carried on. But, happily, the Court of Directors objected to this and recommended that all the proceedings in the Courts of Justice should be conducted in the vernacular language of the particular zillah or district. But this reform was introduced only in the year 1837 in the form of a Bill by which the vernacular languages were substituted for Persian in legal proceedings. Accordingly Bengali was introduced in Bengal and Oriya in Orissa. But in Behar and the then North-Western Provinces, Hindustani was substituted for Persian.

This fact has an important bearing on the progress of primary education in these Provinces. The adoption of Hindustani as the court language afforded a strong stimulus to the study of that language and discouraged the study of Hindi. This partly explains the fact that the North-Western Provinces, which were for so many centuries the centre of learning and culture and which "were the pioneers of the policy of extending primary education amongst the masses, and of providing adequate funds by means of local rates," are now the most backward in point of education of all the provinces in India.

After the disruption of the Moghal Empire the science and learning, both Hindu and Muhammadan, had fallen into decay. In 1811, Lord Minto wrote to the Directors of the East India Company remarking that the number of the learned was not only diminishing, but that the circle of learning appeared to be considerably constricted, that the abstract sciences were abandoned, polite literature neglected.

In 1797, Charles Grant laid before the Court of Directors a paper entitled "Observations on the state of Society among the Asiatic Subjects of Great Britain" in which he strongly urged upon the Court their duty of educating the people with a view to raising their moral and physical welfare.

As the result of Lord Minto's minute of 1811, a lakh of rupees a year were set apart for educational purposes and in 1823 a Committee of Public Instruction was formed. Till 1843 the North-Western Provinces continued to be under this Committee.

In 1791, Jonathan Duncan founded a Sanskrit College at Benares and the Government supported it with liberal grants. In 1814, when the Governor-General visited Benares, Jainarain Ghosal, an inhabitant of Benares, presented a petition to His Lordship with a proposal to establish a school in the neighbourhood of the city and handed over Rs. 20,000 to the Government on the interest of which, together with the revenue arising from certain lands, the school was to be run. Accordingly, in 1818, the school was founded of which the Rev. D. Corrie was made manager. In 1823 the Committee of Public Instruction in carrying out the policy laid down in Lord Minto's minute of 1811, founded two new colleges, one at Agra and the other at Delhi for the cultivation of Oriental literature. Later on, English classes were opened at the Agra college and the Sanskrit college at Benares and a separate institution was founded in Delhi in 1829 for the cultivation of Western learning. The introduction of English classes marks a definite stage in the evolution of the Educational policy of the British Government in India. The Despatch of the Court of Directors, dated 29th September, 1830, outlines that policy and recommends the establishment of separate colleges for the study of English in order that Indians may become, through a familiarity with European literature and science, qualified for situations of higher importance and trust. With a view to encourage the study of English, it was to be gradually introduced as the language of public business in all its departments.

In 1835, Lord Macaulay produced his famous minute in favour of English education, and on the 7th March the Government of Lord William Bentinck passed the memorable resolution which declared that the great object of the British Government ought to be the promotion of European literature and science amongst the natives of India, and that all the funds appropriated for the purposes of education would be best employed on English education alone.

The passing of this resolution naturally created considerable dissatisfaction in the minds of the supporters of Oriental education; and Lord Auckland came forward with a compromise in a minute, dated November 24th, 1839, which,

while encouraging the extension of the study of English, at the same time "rescued the 'native' colleges from the misappropriation of funds allotted to them and by a liberal distribution of scholarships to all the seminaries alike remedied in some degree the discontinuance of the subsistence allowances on which most of the students, like the poor scholars of the Middle Ages in Europe, had been accustomed, under all previous rule, Hindu, Muhammadan or Christian, to depend."

In 1844 came the celebrated notification of Lord Hardinge known as "Lord Hardinge's Educational Resolution" the object of which was to encourage the spread of English education "by holding out to those who have taken advantage of the opportunity of instruction afforded to them, a fair prospect of employment in the Public Service."

Lord Hardinge's Resolution was passed in October 1844, and when it was communicated to the Committee of Public Instruction, that body framed certain rules for holding examinations for those who were to receive certificates of qualification for Government service. This curiously led to a feeling of the greatest dissatisfaction among the Missionaries who objected to the study of Shakespeare and of the English dramatists! Owing partly to this opposition and partly to political and administrative reasons, this resolution could not be put into practice until several years later. The following account of the state of education in the North-Western Provinces from the pen of Mr. J. C. Marshman, placed before a select committee of the House of Commons on the 18th July 1853, is however interesting:—

"I find, according to the last Report, in the Agra Presidency that the number of Government schools and colleges amounts to eight, and the number of scholars in them to 1,548. In the same Presidency the Missionaries have 22 English schools in which 1,754 students are receiving education; but as English is not so popular in the North-Western Provinces as it is in Bengal, I am not aware that there are any proprietary schools in any of the great cities in those Provinces. The education has been carried to a very high pitch in the Government institutions. The students receive the same kind of instruction which is comprised in the compass of a liberal education in this country, and go through the whole circle of literature, of philosophy and of science. Many of the Missionary schools also embrace the same large range of instruction and the education given in them is

equally comprehensive.....The natives exhibit great sharpness and great precocity of intellect. They have also very great powers of application. In many of those institutions, the youths who have reached the head of them, have obtained an amount of knowledge which would not do discredit to some of the best institutions in this country."

The following statistics give us some idea of English education in 1852.

	No. of Institutions.	Expenditure.	Teachers.	Pupils.
Bengal ... { English and mixed	87	3,87,110	288	5,465
... { Vernacular	104		104	4,665
N.-W. P. ... { English and mixed.	7	1,38,521	112	1,582
... { Vernacular	8		48	...
Madras ... { English and mixed.	1	48,558	13	180
... { Vernacular	...		...	...
Lombay ... { English and mixed.	14	1,50,408	62	2,066
... { Vernacular	238		238	11,894

The progress of education seems to have been satisfactory. However, there is an admission that enough had not been spent on education. In his statement before the Select Committee of the House of Commons, on the 25th July 1853, Sir Frederick Halliday said: "It is not the opinion of those who are interested in education in India, that enough money is not spent upon it, the reason being, of course that there has not been hitherto, generally, money to spend; the desire is that as fast as means can be found, as fast as the Government is in possession of means for that purpose, those means should be applied to the extension of education; it being a matter, in the opinion of persons in authority in India, of the very last importance, superior perhaps to all others, towards the improvement of our administration."

PRIMARY EDUCATION.

In 1843, the control of education was transferred from the Government of India to the local Government and almost immediately, before other provinces had realised their responsibilities, Mr. Thomason, the Lieutenant-Governor of these Provinces, devised a most admirable scheme of popular education, a scheme which received the most cordial approval of the Court of Directors. He saw that the best way of promoting education amongst the masses was by encouraging the indigenous institutions of the country. Vernacular schools were established at the headquarters of

each *tahsil* to serve as models. They were supplemented by *halquabandi* schools which brought education to the very doors of the people. A Visitor-General, having under him in each district one *zilah* visitor and three *pargana* visitors, were appointed, whose function was to persuade, assist and encourage the multiplication and improvement of indigenous schools. Funds were provided by Zemindars who promised to pay a tax of one per cent. on their land revenue. This admirable scheme, which had its origin in these Provinces and was followed with the necessary modifications in other provinces with great success, has not produced results proportional to the merit of the scheme or the amount of money spent upon it.

There is overwhelming evidence to prove that the failure of the scheme and the consequent backwardness of these Provinces in the matter of education is to be ascribed to the attempt made by the Government of these Provinces to substitute Hindustani in the place of the vernacular Hindi. The introduction of the former as the court language, and the consequent rise in the market value of the knowledge of that language, the larger employment of Hindustani-knowing men in the various departments of the State, and the growing uselessness of Hindi in all matters dealing with the courts and offices all combined to discourage the study of Hindi and compelled a people to take to the study of Hindustani. A further discouragement to the study of Hindi was given when Sir John Strachey who, in utter disregard of all opinions of men of the highest eminence and authority not only declined to "alter the relative position of Hindustani and Hindi," but two years later actually laid down that "no person if a native of the country should receive an appointment in the public service to which a salary of Rs. 50 or upwards was attached, even in an office in which a knowledge of English was required, unless he held a certificate of having passed the Middle Class Anglo-Vernacular Examination with Urdu or Persian as second language." This meant the closing of the doors of public service against all who still preferred the vernacular to Hindustani, even in offices where only English was required.

The result of this policy was disastrous to the progress of primary education. The difficulties of reading and writing Hindustani prove forbidding to almost all except those who seek employment. The Director of Public Instruction in his Report on the progress of education for 1861-1862 says: "Much of the success of these (*halquabandi*) schools among the agricultural

population is due to the Regulation directing the keeping of village accounts and the submission to the District officers of all papers regarding land in either the Urdu or Nagri character.... In many *tahsils*, only Urdu papers are received, and in most they are preferred. The Patwari consequently who has kept his accounts in Nagri is put to the inconvenience of getting them translated before he can present them. Hence while the number of schools in Nagri has decreased, that in Urdu or mixed schools has increased 30 per cent.

The following table illustrates in a very remarkable way the comparative increase in the number of pupils studying Hindustani.—

NORTH-WESTERN PROVINCES AND GHARWAL. (Excluding Kumaon and Gharwal.)			
Year.	Urdu or Persian	Hindi	Hindi
1860-61	11,490	69,134	...
1861-62	17,431	72,648	...
1862-63	20,073	73,726	1,187
1863-64	20,180	73,825	1,567
1864-65	21,618	60,673	2,127
1865-66	21,982	76,516	1,363
1866-67	24,058	80,961	1,412
1867-68	25,657	78,300	1,502
1868-69	32,377	79,023	1,336
1869-70	32,445	74,373	2,055
1870-71	34,621	77,778	3,173
1871-72	48,665	86,179	4,145
1872-73	43,629	76,476	5,198
1873-74	48,229	85,820	6,708

The figures are interesting; roughly the number of pupils learning Hindustani in 13 years has increased 4.2 times, while those learning Hindi

have increased only 1.2 times. In Kumaon where Hindi written in the Devanagari character is the court language, the number has increased six times.

The rapid progress in the Kumaon division has been maintained all through. It is still found to be the most literate division in the province.

A consideration of education in the province of Behar and the Central Provinces places the whole matter in a clearer light. When in the carrying out of the Resolution of 1839 passed by the Government for the substitution of the vernacular as the court language in the place of Persian, Hindustani was adopted under the mistaken notion that it was the vernacular of the people and so few people cared to study Hindi. In 1872, this was set right in Behar by Sir George Campbell who directed that all processes, notifications and proclamations should be made in Hindi, that the official records should be kept and petitions received in Hindi. This remained a dead letter till 1880 when once more, throughout Behar all documents in the Persian character were forbidden to be issued. The results of this policy are evident from the fact that while on the 31st March 1872, the total number of boys in the primary schools of Behar was 33,430, at the end of 1895-96 it stood at 2,60,471, that is, an increase of nearly 8 times in 23 years. A similar result shows itself in the Central Provinces.

A comparison of the progress in education made in the various provinces is of considerable interest. Until the years 1870-71 the two provinces where any attempts on a large scale had been made on behalf of mass education were the North-Western Provinces and Bombay.

Table III.—Comparative statement showing the number of boys in Primary Schools in six important provinces of India between 1870-71 and 1895-96

Year.	Madras.	Bombay.	Bengal.	N.-W. P. and Oudh.	Punjab.	Central Provinces.	Remarks.
1870-71	68,237	159,628	68,543	153,252	69,497	78,399	The figures for 1870-71 include girls also.
1881-82	340,268	312,771	880,937	204,512	93,660	74,529	
1884-85	332,540	374,882	12,22,638	185,396	79,250	90,250	
1886-87	358,641	403,717	10,80,389	171,812	79,529	97,015	
1887-88	365,887	409,164	10,03,758	163,280	77,033	95,146	
1888-89	389,394	428,928	10,97,901	146,445	85,861	96,158	
1889-90	414,943	440,672	10,85,832	145,412	84,763	79,923	
1890-91	477,999	467,967	10,71,076	149,513	83,249	80,877	
1891-92	517,638	477,031	11,23,560	147,714	88,972	83,683	
1892-93	503,218	461,789	10,91,543	151,266	83,389	98,805	
1893-94	505,108	475,985	10,99,595	159,472	85,620	110,591	
1894-95	498,472	484,107	11,71,722	157,225	108,434	110,271	
1895-96	510,063	500,122	12,06,619	155,552	109,052	117,896	
Total population in 1891	35,630,445	26,966,242	7,13,46,987	4,69,05,085	2,08,66,847	12,944,805	

The figures are instructive. We must remember that in the North-Western Provinces, in spite of the considerable stress laid upon the education of the masses by Sir William Muir who, in 1871, declared "that the first claim on public funds is for elementary education" and of the equally emphatic reiteration in 1874 of this same principle by his successor Sir John Strachey who held that "the chief duty of the Government is to the masses and it was their education which should be the chief care of committees, and in spite of the consequent increased activities, added to the fact that the North-Western Provinces had 20 years' start over other provinces, yet in the course of 11 years 1871-1882, the number of pupils in the North-Western Provinces and Oudh increased from 1,53,252 to 2,04,512 while in Madras, which had only $\frac{1}{2}$ of the population of the North-Western Provinces, it had risen from 68,237 to 3,40,278. In Bombay, which had less than half the population of these Provinces, it rose from 1,59,628 to 3,12,771 and in Bengal from 68,543 to 8,80,937. The percentage of pupils in primary schools to the male population in each of the provinces in 1882 stands thus:—

North-Western Provinces ...	89 %
Bombay ...	2.6 "
Bengal ...	2.5 "
Madras ...	2.2 "

The condition became worse after 1882.

In 1895-1896, in Madras the number of pupils rose to 5,10,063; Bombay to 5,00,122; in Bengal to 12,06,619 while these provinces actually record a falling off to 1,53,552, i.e., practically an increase of only 2,300 in 25 years on that at the beginning of the year 1870-71, though the population had increased by 50,00,000.

The contrast afforded by these figures led the Education Commission to investigate into the causes. These were:—

- (1) The poverty of the agricultural classes.
- (2) The injudicious attempt of the *halquabandi* schools to imitate the *tahsili* schools.
- (3) The neglect of indigenous schools.
- (4) The adoption of Hindustani in the place of Hindi.

The first was dismissed by the Commission as unsatisfactory. They pointed out that in Bombay the agriculturists paid school fees while in these Provinces free instruction was given to the cess-payers. The second was considered not to hold good at the time of the inquiry. With regard to the third reason, the Commission was of

opinion that "the indigenous schools had remained altogether outside the organised system and for many years past they had received no assistance or encouragement from the department." The feeling in the Provinces was still in favour of the indigenous system, so that while in Bombay the popularity of the departmental schools was shown by the annual increase in the number of pupils attending them, in the North-Western Provinces there is no such increase in the number of students attending the *halquabandi* schools.

The original policy of Mr. Thomason of encouraging indigenous schools, to use the words of the learned Commissioners, was abandoned by the Government "for one in which the control of education should be more entirely in its hands. Supported by the voluntary contributions of the landholders but managed by Government officers, the village schools, then organised slowly displaced the indigenous *Maktab* and *Pathshalas*, and at length became the only form of primary vernacular education which the Government cared to promote." (The italics are ours.)

In their summary of the state of education in the North-Western Provinces in 1882, the Provincial Committee of the Education Commission for these provinces remarked that two blank spots were specially noticeable, first, in the education of the upper classes and secondly in the education of women. Education was confined to other portions of the community and the natural leaders of the common people and the arbiters of the domestic happiness in all classes of society, were, for the most part, as far removed from the light of Western knowledge as they were 50 years ago. There was another class of people whom the State system of education did not touch. In a note on the education of these provinces Mr. F. S. Growse observed:—

"At present the only attendants of our village schools are boys whose parents hope to secure for them some kind of Government employment. The course of instruction is not calculated to satisfy the modest requirements of the yeoman, the artisan, the trader and generally the independent middle classes which ought to supply the material for those local boards which the Government is now so anxious to organise. What primary education is given is not regarded as a possible end in itself, but only as a preparation for higher studies. A little reflection must show that this is exactly the reverse of what is wanted. Instead of a teacher priding himself on the number of his pupils who have got Government appointments, it would be far more to the purpose if he could boast a long list of boys,

RETROGRESSION 1881-1882 to 1884-85.

The following table compares for each province the number of primary schools for boys under different management in 1881-82 and 1884-85*:

Province.	1881-82		1884-85	
	Schools.	Pupils.	Schools.	Pupils.
Madras ...	14,008	841,998	13,720	832,640
Bombay ...	5,012	322,771	5,898	374,882
Bengal ...	50,788	880,937	65,585	1,222,688
N. W. Provinces ...	5,562	205,166	5,139	185,396
Punjab ...	1,526	93,199	1,492	79,250
Central Provinces ...	1,262	74,335	1,620	90,259
Burma ...	3,228	89,630	4,935	180,090
Assam ...	1,280	39,978	1,527	45,950
Berar ...	876	35,141	793	31,796
Coorg ...	59	3,048	65	3,370
Total ...	83,591	2,070,968	100,774	2,496,171

who after learning to read, write, and cypher, had settled down contentedly to their hereditary occupations, and had proved the value of education by turning out their work in a more intelligent style than their fathers had done before them. *This would be a guarantee of genuine progress and would check that rapid decay of all indigenous arts and manufactures which is the necessary result of our pernicious system of schooling, which aims at converting all the rising generation into mere office clerks (the italics are ours.)* A craving for vernacular education by people who can earn their bread without it, is the very last want that is felt by an ordinary community....we exhaust the resources of Government in making a free gift of professional training to people who are quite able to provide it for themselves, instead of applying all our means to the diffusion of simple vernacular education, far more important in its effects on national progress but less productive of immediate individual advancement, and therefore at once more deserving and more dependent on state patronage."

From this it is clear that the common people were unaffected by the State system of education, the classes whose occupations were agricultural, mechanical or commercial, nor the vast body of owners of land, large and small and they only classes who benefited by it were those who aspired to be public servants or lawyers.

PRIMARY EDUCATION AFTER THE REPORT OF THE INDIAN EDUCATION COMMISSION OF 1882.

In 1886, Sir Alfred Croft issued his review of education in India in obedience to the instruction conveyed to him that the report should be a "compendium of the information supplied by the different local Governments as regards the condition of education in each province, the methods and organisations by which it is imparted and the extent to which effect is being given to the recommendations of the Education Commission."

A comparison of the statistics of education for 1881-82 and 1884-85 becomes more complicated on account of the introduction of methods of classification different from those previously existing, especially in the treatment of primary or middle departments attached to middle and high schools. Under the new classification a number of primary schools disappear under that head as they are no longer regarded as separate institutions but as integral parts of the high schools.

The "North-Western Provinces" have suffered an apparent decrease of 413 primary schools. But if we include the 500 primary departments attached to the high schools there is a net gain of 87 schools. This increase is a very poor one compared with that of 300 in the Bombay Presidency, of 132 in the Punjab, of 230 in Assam.

In explanation of the want of progress in certain districts in the North-Western Provinces it is remarked that Primary Education "is and long must be, a plant of very slow growth, and poor cultivators are frequently unwilling and unable to send to school the children whose labour in the fields has an immediate and tangible value," and again in 1883-84, "the stolid apathy of the agricultural classes in some parts of the country is an obstacle which the gods themselves would fail to surmount."

However, whatever the explanation may be, the retrogression in the matter of primary education continued.

* Review of Education in India in 1886, by Sir A. Croft, p. 60.

Number of boys in the primary stage per 1,000 of the male population of the school-going age.*

Names of Province.	1891-92	1901-02	1906-07	1911-12	No. of male literates per 1000 according to the Census of 1911.
Madras ...	188	198	237	284	138
Bombay ...	221	225	253	308	120
Bengal ...	223	232	254	281	113
U. P. ...	51	87	124	138	61
Punjab ...	78	86	112	145	65
N.-W.-P. ...	...	68	81	117	57
Burma ...	202	267	197	191	376
Eastern Bengal and Assam ...	164	197	261	297	106
Central Provinces ...	101	187	...	...	62
Berar ...	208	213	203	238	...
Coorg ...	250	204	195	273	157

RETROGRESSION—continued.*

In the report on Public Instruction in the N.-W.P. and Oudh for 1894-95, pp. 2-3, the Director says:—

"During the year the second Quinquennial Review of the State and Progress of Education throughout British India has been published, dealing with the five years 1887-88 to 1891-92, the Government of India has recorded a Resolution on the subject. In this it is pointed out that in the North-Western Provinces and Oudh:

(i) The percentage of children at school is lower than in any other part of India, and has receded from 5 to 4 during the quinquennium.

(ii) In primary schools, as well as in the scholars attending them, there has been a decline in numbers.

(iii) The fee-income in primary scholars rose considerably, but is still much less than in other provinces.

A despatch from the Secretary of State deals with the Review and the Government of India's Resolution on it and contains the following paragraph:—

"The condition of education in the North-Western Provinces and Oudh is another regrettable matter which has been brought to light by this comparative Review. Both in the number

* See Progress of Education in India 1896-87 to 1892-93, pp. 140-141.

of scholars attending primary schools and secondary schools and in the proportion they bear to the population of school-going age, there has been a marked retrograde movement in the Province during the period in question. Notwithstanding an increase of expenditure amounting to nearly five lakhs, the number of pupils under instruction has diminished by 47,000."

It will be seen that during the year something has been done to remedy the defects which have been brought to notice. Other measures are under consideration, but much still remains to be done. The fundamental defect, which specially calls for treatment is the backward rate of primary education throughout the districts. The fact that notwithstanding increased expenditure there has been a serious falling off in numbers appears to indicate something amiss in the system of management."

This unfortunate condition of things was remedied by the extra grant of Rs. 75,000 in spite of famine and consequently the serious decrease in the earlier years was changed into a notable increase.

Number of Pupils in the Primary Schools for boys.

	1886-87	1891-92	1892-93	1893-94	1894-95	1895-96	1896-97
N.-W. P. and Oudh	71,812	147,714	151,328	158,399	157,166	155,500	207,116

Thus nearly 51,000 pupils were added during the year 1896-1897. During this year a special grant of Rs. 75,000 was made to the District Boards for the encouragement of vernacular primary education. The increase in the expenditure on primary schools during the year amounted to Rs. 44,886. In spite of this grant of Rs. 75,000, the Director of Public Instruction, Mr. T. C. Lewis, drew the attention of the Government to the comparative injustice done to these Provinces in respect of the money spent on the education of the masses.

Mr. Lewis wrote as follows:—"Before leaving the subject of expenditure, I would take the opportunity of remarking on the differences observable in different parts of India. It has been noticed year after year that these provinces are far the most backward of all the provinces of India with regard to the diffusion of education among the masses of the population. The percentage of scholars under instruction to the population of school age was last year (1896) only 4.28

in these provinces to 7.93 in the Central Provinces; 8.48 in the Punjab; 14.81 in Madras; 17.4 in Bombay and 15.6 in Bengal. The true reason of this difference is not far to seek. It lies in the fact that public and other monies are spent much more liberally on education in other parts of India than in the North-Western Provinces and Oudh (the italics are ours). If the results are to be judged by the percentage of scholars in the population, then before there can be any fair comparison, it is necessary to see what is the expenditure per head of the population. In the North-Western Provinces and Oudh only 8½ pias per head of the population are so spent annually upon education; in the Punjab nearly twice as much is spent and at the same time twice as many children get educated in proportion to the population. To raise these provinces to the level of the Punjab would, therefore, require an annual expenditure on education nearly double that now sanctioned."

Name of Province.	Population.	Expenditure from public funds.	Expenditure from public or per head.	Percentage of scholars to population of school-going age.
Madras ...	85,841,828	31,43,844	3 1 5	14.81
Bombay ...	26,988,242	35,51,545	0 2 1	17.4
Bengal ...	78,043,697	39,31,629	0 0 10	15.6
N.-W.-P. and Oudh ...	46,905,085	20,79,045	0 0 8	4.28
Punjab ...	20,866,847	17,69,804	0 1 4	8.48
Central Provinces ...	12,944,805	6,84,744	0 0 10	7.93
Burma ...	7,627,568	8,23,381	0 1 9	22.17
Assam ...	5,485,248	3,96,858	1 1 2	12.32
Coorg ...	178,065	28,182	0 2 7	22.25
Hyderabad and assigned districts ...	2,197,040	3,81,257	0 3 1	11.3

Further, the following figures which have been taken from the Administration reports of the provinces named, if they are correct, go to show that the percentage of educational expenditure from public funds to the aggregate provincial and local revenue and receipts is much lower in the North-Western Provinces and Oudh than in other parts of India, though Burma falls still further behind. An additional expenditure of some eight lakhs would be needed in order to bring these provinces up to the standard of liberality towards education adopted in Madras, Bombay, Bengal and the Punjab, in regard to the proportion of their income which they devote to this object.

Name of Province.	Aggregate Provincial and local revenue and receipts.	Expenditure from public funds (Provincial and Local).	Percentage of the expenditure from the aggregate revenue.
Madras ...	4,38,21,617	28,49,224	6.5
Bombay ...	4,61,35,978	30,86,831	6.7
Bengal ...	5,37,84,386	38,69,071	6.3
N.-W.-P. and Oudh ...	4,22,31,000	20,00,548	4.7
Punjab ...	2,22,52,749	14,12,967	6.3
Central Provinces ...	81,37,569	5,90,114	7.2
Burma ...	1,19,99,382	6,13,607	3.2

During the next five years owing to the exertions of Mr. Lewis these provinces show a gain of 74,000 pupils while there was a complete arrest of progress in primary education in the rest of India on account, it is said, of two severe famines and a wide spread epidemic of plague and yet reviewing the work of these five years Mr. Lewis considered that among the most urgent needs of the provinces were "more primary schools."

"The carrying out of these reforms," says Mr. Lewis, "and advances on a moderate scale would require an additional twenty lakhs a year, and the districts are quite ready to spend this amount. This may seem a considerable demand; but even if it could be granted it would only raise the total expenditure from public funds on education including University, Professional and Technical, as well as the general Secondary and Primary instruction, with the outlay on buildings and all the cost of direction to 1½ d. a year per head of population. And this scale of expenditure is already exceeded in most if not all of the other provinces."

The following year (1903) Mr. Lewis begins his annual report by remarking: "It has been accepted by the highest authority in the land with the assent of those competent to judge that Indian education, instead of going on to perfection has been steadily going to worse. A falling back in education amounts to nothing more than a national disaster, and all the more in the case of a country already so uneducated as India." However Primary education received more attention. The pay of head teachers of village schools was raised to a minimum of Rs. 8 per mensem, and the pay of assistant teachers improved and this was effected at a cost of Rs. 50,000 per annum, and nearly 20 schools were added in each district and a sum of Rs. 1,00,000 was distributed for this object; another Rs. 50,000 were handed over to the Boards for the development of aided primary education and a grant of more than two

lakhs was made to the districts for the improvement and better equipment and building of primary schools and a new set of grant-in-aid rules for vernacular primary schools was drawn up during the year, embodying certain of the recommendations of the Simla Educational Conference. These reforms were made possible only by the special permanent annual grant of five lakhs assigned to the U. P. by the Government of India for education.

"While the gift has been welcome," says Mr. Lewis "some disappointment is felt at the smallness of the amount, in comparison with that given to other provinces; and much regret that the opportunity was not taken to bring the most backward province more nearly abreast of the more fortunate parts of the country, in which a greater liberality towards education has been customary. As a matter of fact the United Provinces show worse in comparison with the rest of India than they did before the special grants were distributed among the provinces. Already at the bottom of the list with regard to public expenditure on education per unit of population, the United Provinces have now received less in proportion to population than any other province. Hence other provinces have by the favour of the Government of India been allowed to increase their lead. It is, therefore, the misfortune rather than the fault of these provinces that they are last of all in educational progress; and here it seems they are destined to remain. There is little doubt that if money were spent as freely here as elsewhere on education, and, largely devoted to the extension of primary education, there would be a large increase in the enrolment of scholars. There is a demand in perhaps all districts for more schools and more scholars, because the funds are exhausted. When a people cries out for education and cannot get it, we may well, with Carlyle, count it a tragedy." All comment is superfluous.

During this year we note from the figures given before that there is a large increase of pupils and schools. The number of schools rose from 6,773 to 8,408 and the number of pupils from 280,000 to 471,244. The increase in the number of schools is not a real increase, for in the year 1901 according to the instruction received from the Government of India primary classes and departments of secondary schools were shown in the returns under the head of primary education.

The following year (1904) Mr. Lewis expressed his regret at the retrenchments in the budget allotments for education. Again, the following year Mr. Lewis once more dwelt upon the need of

spending more on the education of the people. He said, "while scrutinizing the progress of education in the province year after year, and endeavouring to discover and make good its deficiencies I have felt it my duty to invite the attention of Government again and again to what has struck me as the prime cause of all shortcomings; the root of the evil unquestionably is the utter inadequacy of the educational allotments and their smallness in comparison with the sums spent on the same objects in other parts of India. My remarks have not passed quite without observation; there has indeed been a considerable increase of expenditure from public sources provided during the last few years. My proposition expressed in general terms, is no longer regarded as a matter for controversy. But one thing is clear, and that is that the true state of affairs is not yet clearly grasped. I have made a calculation of the amount of public money of all kinds—provincial, local and municipal—spent per thousand of the population under each Local Government or Administration in India. For the sake of adopting a uniform basis of comparison, the figures are taken from the returns published in the various provincial reports; but in order to bring my presentment of the case still more up-to-date, I have added the provincial shares of the 35 lakhs grant which has since been found for primary education. The diversity exhibited is remarkable of all the large divisions in India, the United Provinces remain the least favoured, receiving only Rs. 80 per thousand of the population for expenditure on education. At the other end stands Bombay which finds Rs. 245 per thousand of the population."

To raise the United Provinces to the standard of Bombay, Mr. Lewis calculated that the public expenditure should be increased from 38 to 117 lakhs a year of course on the supposition that progressive Bombay would stand still. "If these figures are true," he said, "it will not do to put them aside as startling. It will be necessary to consider them, to become familiar with them, to acknowledge their irresistible logic, to take action to redress any existing inequitable inequalities that may have to be admitted when every possible allowance has been made for circumstances that may justly be held to modify the case."

To bring these provinces into line with the average of the rest of India, if not that of Bombay, Mr. Lewis calculated that an additional 31 lakhs a year were required. "The annually recurring surplus to which we are becoming accustomed to in the Indian budgets gives hope that in the course of time it may be quite

possible to grant these contributions from that source without additional taxation, wherever the local Governments, have against their will, to plead *non possumus* to the reasonable demands of the people whose welfare is in their charge. The acknowledged educational needs of India cannot be said to be satisfactorily met as long as the excessive deficiencies of the province which stands second of all the provinces of the Indian Empire in size and population remain unnoticed and unremedied. With the full additional funds which the figures indicate as the proper provincial share, it would be as possible to bring free elementary education within the range of practical politics here as in Bombay, where that measure is being seriously discussed; or as in some other parts of India, where it has already been adopted for large classes of the population. In addition to the better teachers and inspecting officers which recent measures are meant to secure, it is also of the utmost importance to keep an open door for scholars to go in at; and that is merely a matter of expenditure, for the people are already convinced of the value of the gifts offered to them by the Educational Department, and they are crying out for more.

From 1894—1906, Mr. Lewis laboured on behalf of the education of these people. During the quinquennium, there had been actually a decrease of 20 per cent. in the number of scholars. The number of primary schools was falling off as well as the attendance in them.

During his term of office the number of scholars almost doubled, the number of primary schools was multiplied by 2½ and the number of scholars attending them by 2½. The public expenditure per thousand of the population rose from 44 to 80. But in Bombay the corresponding increase was from 188 to 245. The anomaly of this distribution of the taxpayers' money was brought before the Legislative Council in March 1906, on behalf of the province.

The parting words of Mr. Lewis are almost pathetic. For twelve years he had struggled for justice and the conscientious discharge of the responsibilities that lay on him as the representative of the Government in whose hands lay the destinies of the masses of the people. "After much consideration," he said, "of the circumstances I have ventured to suggest that the problem might be satisfactorily solved if an immediate addition of at least 20 lakhs were made to educational expenditure, and a similar

further increase were provided on the successive renewals of the provincial contract with the Government of India, until the inequality, in so far as it may be admitted to be unjustifiable, is removed. At the present time a great improvement is actually taking place; during the last twelve years there has been an increase of more than 20 lakhs, and this has doubled the public expenditure and has brought the outlay per thousand of population this year up to Rs. 87. But this obviously does not go far enough," and district officers now agree that many more grants are required, and that the United Provinces will continue to be the most illiterate in India unless a much larger expenditure on primary schools is possible. I have felt it incumbent upon me to deliver my conscience and say one last word before I go in the interests of the people among whom it has been my fortune to serve and whose claims appear to have been inadvertently overlooked."

Steady progress was made, but in 1908 we again notice a falling off. The number of primary schools fell from 9,717 to 9,558. The decrease took place in aided and unaided schools and more than counterbalanced the increase in District Board and Municipal schools. The number of students stood almost stationary. This was not due to any lack of demand for education among the people for as the Inspector of Lucknow remarked: "Generally speaking it may be said that the demand for primary education continues under normal conditions steadily to outgrow the supply in all districts. The following year (1909) the decrease went on and the number of schools fell to 9,267 and the number of students fell from 461,229 to 443,220. Mr. De la Fosse sees in this no real cause for despair. He expressed it as his opinion that there was "a good deal of educational jerry-building, the result of which is no more lasting than in bricks and mortar." Some Boards in their inordinate desire to multiply scholars indulged in reckless expenditure. This is hardly intelligible when we read the remarks of the Lucknow Inspector who said that the demand for primary education was outgrowing the supply and those of Mr. De la Fosse himself who in supporting the demands of his predecessor Mr. Lewis, declared that "given the same expenditure as in other large provinces, it would not take long for the United Provinces to come abreast of them in educational progress and without it there would be no possibility." Mr. De la Fosse says that the schools were opened on too easy terms, and he admits that there was a "fairly general process of weeding out of

schools, which on close examination were found to serve no useful purpose."

It is a little difficult to reconcile these somewhat contradictory statements. Whatever the explanation be, the decline still continued and in the year 1910, the number of vernacular schools of a public character diminished by 201 and the number of scholars by 3,734. In the course of the year the Government instituted an exhaustive enquiry into primary education with a view to discovering whether the decline in numbers indicated a retrograde movement. The chief causes alleged were briefly these:—

(1) Plague, (2) cholera, (3) flood, (4) removal of fictitious entries and striking off of defaulters' names, (5) lack of funds (6) the weeding out of schools that were not worth keeping open.

We have dwelt at some length upon the progress of primary education in the United Provinces and have shown how though the scheme for the education of the masses was first started in these provinces by Mr. Thomason, yet not only has it not made much progress but these provinces have the unfortunate reputation of being the most backward in point of education. In the report of Indian education 1913-14 the following figures are given:—

Name of Province.	Pupils at school in thousands 1912-13	Pupils at school in thousands 1913-14.	Percentage of increase.	Percentage of school-going population at school.
Madras	1,862	1,470	7.9	23.7
Bombay	988	1,029	4.2	25.3
Bengal	1,719	1,748	1.7	25.6
U. P.	788	819	4.0	11.6
Punjab	411	440	7.2	14.7
Burma	480	505	9.9	27.8
Behar and Orissa ...	847	862	1.7	15.6
Central Provinces ...	385	365	8.9	15.6
Assam	194	215	10.7	20.3
N.-W. F. P.	39	44	15.5	13.5
Coorg	7	4	6.5	21.0
Delhi	11	13	14.7	21.7

We cannot help remarking that after reading the annual reports of the heads of the Educational Department year after year that there seems to be one unvarying factor that is responsible for the lack of progress, i.e., want of funds. As Sir Harcourt Butler says in one of the Administration Reports of these provinces:—

"Want of money is the beginning and the end of a narrative of education in these provinces in modern times."

By the courtesy of the Editor, THE HINDUSTAN REVIEW, Allahabad.

CURRICULUM FOR VERNACULAR SCHOOLS FOR BOYS FOR 1916-17 IN THE U. P.*

PREPARATORY SECTION.

Class A.

1. *Reading*.—To read simple and compound characters at sight.

NOTE.—No text-books are prescribed for this class and none should be used; but reading-sheets, preferably illustrated, should be used. The teachers should also use the black-board to show how letters and words are formed.

2. *Writing*.—To copy on *takhtis* characters and easy monosyllables from the black-board, from large sheets or from head-lines written on *takhtis* by the teacher; also to write them to dictation.

3. *Arithmetic*.—Notation and numeration of numbers as far as 50 to be taught by exercises. Construction and memorizing of tables up to 5×10 .

4. *Observation lessons*.—As in the scheme prescribed. (Vide Appendix.)

5. *Physical exercises*.—The following exercises given in Kempster and Kaye's Physical Drill in Urdu or Hindi:—

CHAPTER I.—Exercises 1, 2, 5 and 6.

II.—Opening the ranks.
Salute and dismissal.

Class B.

1. *Reading*.—To read sentences at sight from the text-book and know the meanings of words.

2. *Writing*.—To copy on *takhtis* and also to write to dictation sentences from the text-book.

3. *Arithmetic*.—Notation and numeration of numbers as far as 1,000. Simple addition and subtraction; answers not to exceed three figures. Construction and memorizing of tables up to 10×10 . Simple multiplication and division by numbers not greater than 5.

4. *Observation lessons*.—As in the scheme prescribed. (Vide Appendix.)

5. *Physical exercises*.—The same as for Class A.

NOTE.—The drawing of simple figures such as squares, oblongs, circles, and the like by the teacher on the black-board and the reproduction by the pupils of the same on their *takhtis*, the pupils being at the same time taught the names of the various figures, should be included in "observation lessons."

LOWER PRIMARY SECTION.

Class I.

1. *Reading*.—To read accurately at sight from the text-book and to explain the meanings of words and sentences. To recite 20 lines of poetry.

* Reprinted from the United Provinces Gazette, April 8, 1916.

2. *Writing*.—To write on *takhtis* sentences to dictation from the text-book.

3. *Arithmetic*.—Notation and numeration extended. The four simple rules. Addition and subtraction in Indian money; answers not to exceed Rs. 1,000. Ideas of fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{3}$ to be taught by concrete examples. Tables up to $10 \times \frac{1}{2}$, $10 \times \frac{1}{3}$, $10 \times \frac{2}{3}$ to be constructed and learnt.

4. *Observation lessons*.—As in the scheme prescribed. (Vide Appendix.)

5. *Physical exercises*.—The following exercises given in Kempster and Kaye's Physical Drill in Urdu or Hindi:—

CHAPTER I.—Exercises 1 to 9.

II.—Opening the ranks.

III.—Exercises 1 to 7.

Class II.

1. *Reading*.—To read accurately at sight from the text-book and to explain the meanings of words and sentences. To recite 30 lines of poetry.

2. *Writing*.—To write on paper sentences to dictation; copy-slips should be used. Simple letters to be composed and written by boys.

3. *Arithmetic*.—The four compound rules in Indian money and weights and measures in common use with miscellaneous examples. Indian symbols for sums in money and weights also to be taught.

NOTE.—Boys reading Nagri will learn the Hindi symbols and those reading Urdu will learn the *raqams*, but any boy may learn both.

Tables up to $20 \times \frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{3}$, $1\frac{1}{2}$, $1\frac{2}{3}$, $2\frac{1}{3}$ to be constructed and learnt.

4. *Geography*.—The meaning and use of a map; the points of the compass; explanation of simple geographical terms by reference to a map or diagram. Illustrations by means of models to be encouraged. Teachers should be required to draw large-scale maps of the village to be fastened to the wall and used with the class.

5. *Observation lessons*.—As in the scheme prescribed. (Vide Appendix.)

6. *Physical exercises*.—The same as for class I.

NOTE.—In the course of the "observation lessons" given in classes I and II the teachers should make drawings of simple objects referred to in the said lessons and encourage pupils to copy them.

UPPER PRIMARY SECTION.

Class III.

1. *Reading*.—To read at sight from the text book and to explain the words and sentences. To recite 40 lines of poetry. Practice in reading simple specimens of script.

2. *Grammar*.—Oral teaching of elementary grammar in its practical application.

3. *Writing*.—To write passages to dictation from the text-book or from books of equal difficulty.

Copy-books or slips to be used. Letters to be composed and written by the boys with proper forms of address.

4. *Arithmetic*.—L. C. M. by factors. Vulgar fractions. Exercises both oral and written on the rules already learnt and having a direct bearing on matters of every-day concern.

5. *Geography*.—Map of the district with simple notes on historical events.

6. *Nature study*.—As in the scheme prescribed. (Vide Appendix.)

7. *Physical exercises*.—The following exercises given in Kempster and Kaye's Physical Drill in Urdu or Hindi:—

CHAPTER I.—The whole.

II.—Opening the ranks.

III.—Exercise 1 to 11.
Races and jumps.

Class IV.

1. *Reading*.—To read at sight from the text-books and from other books, and to explain words, allusions, and sentences. Reading of the script, more particularly *patwaris* papers (in rural schools) and such documents as *patnas* and *qabuliyats*. To recite 60 lines of poetry.

2. *Grammar*.—Parts of speech, syntax and etymology of words.

3. *Writing*.—To write passages to dictation from a book of equal difficulty with the text-books.—To compose and write complete letters on ordinary topics with proper forms of address; also brief descriptions of common objects.

4. *Arithmetic*.—Simple proportion by unitary method; simple interest; practice; simple lessons in account-keeping (*ramanacha* and *khata*). Simple lessons in compound interest. Urdu and Hindi figures for weights and measures.

5. *Geography*.—Principal features, provinces, and the most important towns of India to be taught from the map; United Provinces to be taught in detail.

6. *Nature study*.—As in the scheme prescribed. (Vide Appendix.)

7. *Physical exercises*.—The same as for class III.

NOTE.—In classes II and IV practice in drawing should be continued in connection with the "Nature Study."

MIDDLE SECTION.

Class V.

1. *Language*.—(a) Literary course with grammar, Text-books—Urdu.—Secondary Science Reader, Part I, published by the Indian Press, Allahabad, and Chamanzar-i-Urdu (pp. 1 to 45 and 91 to 117) by H. Jalaluddin Ahmad, Head Master, Government High School, Cawnpore.

Hindi.—Secondary Science Reader, Part I, and Lower Middle Hindi Reader, revised edition, (pages

1 to 64 and 131 to 151), published by the Indian Press, Allahabad.

(b) Translation or paraphrase into modern idiomatic prose from standard authors not read in the class.

(c) Letter-writing in current idiomatic style and in the proper form of courtesy and address.

2. *Mathematics.*—(a) *Arithmetic.*—Revision with special attention to mental problems with small numbers. Simple calculations in the four simple rules with decimal fractions (excluding recurring decimals). Conversion of vulgar fractions into decimal fractions to a given number of places and *vice versa*. The four compound rules and reductions in British weights and measures in common use, instruction to be as realistic as possible. Oral and written problems in the above.

(b) *Geometry.*—Drawing and measurement of straight lines and angles; parallel straight lines; angles of a triangle; construction of triangles and parallelograms.

Test-book.—Pierpoint's Elements of Geometry in theory and practice, Part I, Experimental section, in Urdu or Hindi (pupil's edition, published by the Indian Press, Allahabad).

3. (a) *History.*—Stories from Indian History.

Test-book.—Easy Stories from Indian History in Urdu or Hindi (published by Messrs. Macmillan & Co.)

(b) *Geography.*—Shape, size, and surface of the earth; sphere and hemisphere; poles and equator; circumference and diameter; land and water hemispheres; Eastern and western hemispheres; the five oceans and five continents.

The essentials of the geography of India:—

Position; coasts and islands; the main physical features; climate; productions; provinces and chief Native States; the most important towns.

NOTE.—In connection with the climate of India there should be a preliminary treatment of the following points of physical geography:—

Factors determining the climate of a place distance from the equator, distance from the sea; height above sea level; and distribution of rain.

4. *Nature study.*—As in the scheme prescribed, (Vide Appendix.)

5. *Second Vernacular.*—(a) Literary course as for class III (omitting grammar).

(b) Translation from Urdu into Hindi and *vice versa*

or

Drawing.—The course prescribed for 1914-15.

Physical exercises.— Ditto.

Class VI.

1. *Language.*—(a) Literary course with Grammar.

Test-books.—Urdu.—Secondary Science Reader, Part II, published by the Indian Press, Allahabad, and Adib-i-Urdu (pages 44 to 72 and 97 to 140), by Maulvi Muhammad Ismail, Newal Kishore Press, Lucknow.

Hindi.—Secondary Science Reader, Part II, and Lower Middle Hindi Reader, revised edition (pages 65 to 130 and 152 to 167), published by the Indian Press, Allahabad.

(b) Translation or paraphrase into modern idiomatic prose from standard authors not read in the class.

(c) Letter-writing in current idiomatic style and in the proper form of courtesy and address.

2. *Mathematics.*—(a) *Arithmetic.*—Revision, measurement of the area of a rectangle and the volume of a rectangular solid, when the lengths of the sides are given in feet or inches to one place of decimals. Square root; simple and compound proportion; oral and written problems in the above.

(b) *Geometry.*—Pierpoint's "Elements of Geometry in Theory and Practice." Part I in Urdu or Hindi (pupil's edition, published by the Indian Press, Allahabad) as follows:—

Urdu version.—Pages 51 to 131.

Hindi version.—Pages 40 to 105.

3. *History* (a).—Indian History in outline to the decline of the Moghal Empire with reference to the following:—

Introductory. The country and its people.

(1) *Hindu Period.*—The Aryans: how we learn about the past; Buddha and his story; Alexander the Great in India; Chandra Gupta and his court; Asoka; Kanishka; the Gupta Empire—Fahien; Harsha—Hsien Tsang; the Rajputs.

(2) *The Muhammadan Period.*—Mahmud of Ghazni; Muhammad Ghor; Sultan Razia and Balban; Alauddin; Muhammad Tughlak; Firoz; Timur; Baber; Humayun and Sher Shah; Akbar; Jahangir and Shahjahan; Aurangzeb; Sivaji; decline of the Moghal Empire; the Mahrattas.

Test-book.—Urdu History of India, Part I, by E. Marsden and Jiya Ram, Macmillan & Co., or Hindi History of India, Part I, by E. Marsden and Sita Ram, Macmillan & Co.

(b) *Geography.*—General.—The essentials of the Geography of Asia; position; coasts and islands; the main physical features; brief description of climate; most important productions; main political divisions and most important towns.

Physical.—Evaporation. Cooling effect of evaporation. The presence of water vapour in the air. Hot air can hold more water vapour than cold air. Condensation. Formation of clouds. Dew and mist. Rain. Formation of springs. The three stages of a river. Wind. The Monsoons. Factors which determine climate.

4. *Second Vernacular.*—(a) Literary course as for class IV (omitting grammar).

(b) Translation from Urdu and Hindi and *vice versa*; or

Drawing.—The course prescribed for 1914-15.

5. *Physical exercises.*— Ditto.

Class VII.

(1) *Language.*—(a) Literary course with Grammar.

Test-books.—Will be notified later.

(b) Translation or paraphrase into modern idiomatic prose from standard authors not read in the class.

(c) Letter-writing in current idiomatic style and in the proper form of courtesy and address.

2. *Mathematics.*—(a) *Arithmetic.*—Revision. Proportional parts. More difficult examples in percentage and in simple and compound proportion. Profit and loss. Oral and written problems in the above.

NOTE.—Pupils should be taught how to solve a simple equation with one unknown quantity, and should be encouraged to use symbols in the solution of questions in arithmetic.

(b) *Geometry.*—Pierpoint's "Elements of Geometry in Theory and Practice" in Urdu or Hindi, Parts I—III (pupil's edition, published by the Indian Press, Allahabad), as follows:—

Urdu version.—Pages 132 to 182 of Part I and pages 12 to 51, 87 to 110, and 196 to 203 of parts II and III.

Hindi version.—Pages 106 to 149 of Part I and pages 10 to 42, 71 to 90, and 164 to 170 of Parts II and III.

3. (a) *History.*—Indian History in outline from the decline of the Moghal Empire to 1858, with reference to the following:—

(1) The coming of the European traders; (2) Dupleix and Clive; (3) rise of the East India Company to the supremacy in India, Warren Hastings. Cornwallis. Wellesley; (4) the Company as the paramount power in India. Lord Hastings and his three wars—the Burmese wars—Lord William Bentinck and his reforms. The Afghan and Sikh wars. Dalhousie's administration—the Mutiny—Queen Victoria's proclamation.

Test-book.—Urdu History of India, Part II, by E. Marsden and Jiya Ram, Macmillan & Co., or Hindi History of India, Part II, by E. Marsden and Sita Ram, Macmillan & Co.

(b) *Geography.*—General.—Outline of the Geography of the world: Europe, America, Canada, Australia, New Zealand, and British South Africa. The outline to consist of a brief description of the following:—The most prominent physical features, the climate, the life and work of the people, and the very great towns.

Physical.—The earth; morning, noon, and night; latitude and longitude; the zones; the seasons.

4. *Second Vernacular.*—(a) The course will be notified later

(b) The course will be notified later

Drawing.—The course prescribed for 1914-15.

5. *Physical exercises.*— Ditto.

APPENDIX.

SCHEMES OF OBSERVATION LESSONS AND NATURE STUDY.

Instructions to Teachers.

OBSERVATION LESSONS.

Aims.—The chief aims of these lessons are to train children to observe accurately and to quicken their interest in the world around them. In the preparatory stage these are the sole aims. In the higher classes the lessons will further be used to train children to reflect on the results of their observations and to reason about things; they will compare and contrast things. The lessons may be used for other purposes; they may add to the children's intelligent knowledge of common things, and be made the basis of instruction in language and drawing. While it is of importance to keep these additional aims in mind, we must regard them as of secondary importance; if we endeavour to impart to children information, however useful it may be, without making them handle and examine things for themselves, we shall fail to make our teaching the means of developing habits of observation, and the information imparted will be superficial and inaccurate.

Choice of objects.—Familiar objects, chosen from the locality in which the school lies, are recommended. These are better than unfamiliar objects, as a means of training children to use their eyes; we shall make them observant if we get them to see what they had failed to notice in obvious things. Thus the majority of children regard all leaves as having the same shape and structure, until their attention is drawn in an observation lesson to differences. Further, objects which can be so easily procured that all children may bring a specimen to the class and examine it, will give more interest to the lessons than objects which can be shown from the teacher's desk or by pictures. A lesson on milk would therefore be a much wiser choice than a lesson on sodium, and a lesson on a parrot than one on a rhinoceros.

The objects should be chosen with reference to the season of the year and to the age of the pupils. Thus, lessons in which flowers are being examined should be taken in the months of March and April, when the children will have opportunities of examining many varieties; and while a lesson on germination would be suitable for class IV, it would be too difficult for class II.

In order to give opportunities for comparison, the objects chosen should have some connection with each other. In the lowest classes they will be linked together by dealing with similar groups of objects (e.g. common crops), between which the pupils may note comparison and contrast. In the higher classes there should be more continuity of subject; the series of lessons should give the children opportunities to make deductions, and should lead them to the statements of simple general truths such as "Animal life is dependent on plant life." By association in this way the lessons will gain greatly in interest, and will admit of gradual progress in difficulty along particular lines.

The actual objects should, wherever possible, be obtained. Nearly all the lessons in the following lists can be illustrated by objects which the children can bring to school. If the teacher encourages his pupils to exert themselves in this way, he will help greatly to make his lessons a success. Pictures are a poor substitute for the real object and should be used in the place of objects only when lessons are given on certain animals which cannot be shown in the school, e.g. camel, elephant, but which may form the subject of a lesson if children are familiar with them.

It is not necessary to have many objects in a course. The teacher should not attempt to give lessons in all the objects mentioned in the following lists; he should make a selection. Habits of observation are better cultivated by examining a few objects thoroughly than by cursorily looking at many.

Method of Teaching.—The first necessity in an observation lesson is an object to observe. It would not be necessary to say this, were it not a fact that many teachers are content with a picture, a model, or even a description from a book. A picture or model will help to make a description more vivid, but cannot take the place of the object itself.

The teacher should first find out from the class all they know about the object. He should then lead them to examine it more closely and notice things which formerly they had failed to observe. Finally, he should lead them to see how the object is adapted to its uses, ways of living, or mode of growth.

The most common fault of these lessons is that the children do nothing but listen. The teacher should guard against the temptation of imparting much information in one lesson, for children become tired and bewildered by many facts and descriptions. The information should only be such as the object itself gives; any further information may, if necessary, be given in other lessons. Thus a lesson on stamps may be an observation lesson, but an account of the way in which letters are conveyed from one place to another should be left to the reading or composition lesson; while the growth of particular plants may be studied in the observation lesson, the distribution of crops in a particular part of the country should be taught in the geography lesson.

"One thing at a time" is a good rule. But while

it is not desirable in one lesson to deal with several kinds of objects, there should always be several specimens of an object in the class and, if possible, each pupil should have a specimen before him.

Questions should be put at the beginning of a lesson to find out what the children already know about the object. In the course of the lesson questions should be put in order to stimulate the children to think and to look at things for themselves. At suitable stages or at the end of the lesson the teacher should question the class to find out what they have grasped. He should also at the end of suitable stages encourage the class to ask him questions.

The teacher's language should be simple and his own (i.e. not quoted from a text book) and if he uses technical terms, these should only be such as the boys are likely to use subsequently. The value of the lesson as a means of training pupils in the correct use of language in speaking and writing should not be overlooked. The pupils should therefore be encouraged to express the results of their observations by accurate description in speaking or writing, and while the teacher should not make his lesson one on grammar or composition, he should not allow careless expressions to pass uncorrected. In the preparatory classes the lessons should take the form of conversations between teacher and pupils. In classes I and II the children should be asked to write the name of the object and, where possible, to make drawings. In classes III and IV simple records should be made, and children should invariably be asked to make simple drawings. The records may at first be copies of the teacher's summaries on the black-board, but these should be replaced as soon as possible by simple descriptions, written by the pupils in their own words.

More and more will be expected of pupils as they grow older. In the Preparatory stage the sole aim of the lesson will be to awaken in children an interest in the things around them; the lessons must be short and bright, and questions will be put solely to make children examine things. In classes I and II the objects chosen will be more difficult of analysis and will require more careful examination than those of the Preparatory classes, pupils will be led to compare and contrast things, and will be questioned to make them think why the properties and structure of the object are specially adapted to its uses, ways of living, or mode of growth. In classes III and IV there will be a greater demand than in previous classes on the reasoning powers; things will be classified, deductions will be made, general truths will be arrived at, and a training will be given in exact measurement.

Diagrams and drawings by the teacher on the black board are valuable as a means of giving into rest to a lesson, but these should follow, not precede, the children's observations. The black-board sketches should not be elaborate drawings. The fewer the lines in them the better; each drawing should bring out only one or two points, for any elaboration will only distract the class.

When experiments are performed information should not be given as to what may be expected to happen; when the experiment has been carried out the children should be questioned and led to reason out for themselves what it teaches.

For successful teaching, the teacher's interest is the first essential. If instead of depending solely on books, he works at the objects himself saying "How can I kindle the interest of children in these? How can I awaken their curiosity and stimulate them to observe and enquire?" his teaching will be successful.

SCHEME OF OBSERVATION LESSONS.

Teachers should select their lessons from the following lists:—They should choose from the lists objects which are found in the district in which the school is situated, and are best suited to the ages of the children.

PREPARATORY CLASSES A AND B.

Common things.—Simple forms: sphere, cube, cylinder—illustrated by balls, pieces of sugarcane, pencils, *pichkari* (syringe), *bansi* (flute), bricks. Colours: the children should be taught to distinguish the colours white, black, red, green, yellow, and blue. The following should be used as illustrations: Flowers, coloured paper, cloth, wool, beads, and *churries* (bangles).

Common animals and birds.—Cow, goat, sheep, cat, dog, parrot, pigeon, *tital*.

Common fruits.—Guava, mango, orange, tamarind, *ber*.

Common articles of food.—Milk, water, bread, *dal* (lentil), *ghee* (clarified butter), *dahi* (curds).

Class I.

Common things.—*Takhti*, slate, knife, *khurpa* (hoe), *pharua* (spade), *khapra* (tile), *ghara* (pitcher).

Common animals and birds.—Buffalo, horse, ass, camel, sparrow, *maina*.

Common crops.—Wheat, barley, gram, maize, rice, *bajra*, peas.

Common vegetables.—*Sag* (spinach), *bhindi*, *gajar*, (carrot), *muli* (radish), potato, *kohra* (pumpkin).

Class II.

Common things.—Stamps, metals (iron, brass, copper), coins, clay, sand, sulphur, saw, *chheni* (chisel), *barmi* (borer), *hal* (plough), harrow, *kohlu* (sugar mill).

Common animals.—Elephant, monkey, fish, snake, squirrel, rabbit, frog (to be selected only if they are frequently seen in the locality, and if suitable pictures are available) peacock, crow, blue-jay.

Common trees and plants.—Mango, *pipal*, *nim*, tamarind, bamboo, cotton, castor plant.

SCHEME OF NATURE STUDY.

Class III.

Serial Number.	Subject.	Detailed syllabus.	Month of the year in which the subject is to be taught.
1	Classification of objects.	Living and non-living objects. Natural and artificial objects.	July.
2	Plants and their parts.	Examination of a number of the common flowering plants of the neighbourhood with reference to their flowers, leaves, stems, roots, fruits, and seeds, and also to the following :— (a) Flowers yield seeds and fade away. (b) The stem holds the leaves up to the sunlight and supports the flower. (c) The root fixes the plant in the soil.	July and August.
3	Flowers	Examination of some of the common flowers of the season with reference to the following parts :—petals, sepals, and stamens. The following are examples which may be studied :— Khira (cucumber), bhindi (lady's finger) lunki (gourd) jasmine, rose, dhatura, gul hazara.	August and Sept.
4	Fruits	Examination of some of the common fruits of the season with reference to differences in colour, smell, taste, shape, and size, and also to the fact that fruits contain seeds. The following fruits may be examined :— Custard apple (sharifa), lemon, orange, cucumber.	September and Oct.
5	Leaves and their classification.	Classification of leaves of different plants; leaves to be brought by pupils. (a) By shape— (i) long and narrow, e.g., grasses especially the following :— Kans, makka, sarisanda, wheat, rice, barley. (ii) needle-shaped, e.g., chir. (iii) oval-shaped, e.g., tidhara bargad. (b) By structure— (i) simple (one blade, e.g., mango, pipal bargad, mulberry, kela. (ii) compound (blades divided into separate leaflets, e.g., arhar, gram, nim, shisham). (c) By margin— (i) leaves with entire margins, e.g., mango bargad, mahua, gular, bamboo, jack-fruit.	November and Dec.

Serial number.	Subject.	Detailed syllabus.	Month of the year in which the subject is to be taught.
6	Flowers	(ii) leaves with toothed margins, e.g., mulberry, castar, rose. (d) By veining. (i) net veined leaves, e.g., pipal, bargad, gourd, melon. (ii) parallel veined leaves, e.g., sugarcane, bamboo, haldi. Examination (resumed) of some of the common flowers of the winter season with reference to their petals, sepals, and stamens. The following may be studied :—Cotton, poppy, bhanta, mustard, dhaniya, peas	January.
7	Trees	Identification of some of the common trees of the neighbourhood by their leaves of which drawings should be made by the pupils. The following are examples which may be studied :— Shisham, nim, mahua, sal, mangh, pipal, bargad, katala, mulberry, bamboo, toddy palm, date palm.	January and Feb.
8	Fruits	Examination of some of the common fruits of the winter season, as in September and October. The following are examples which may be examined :—Guava, plum, kamrak, anar, anjir.	February.
9	Observation lessons.	Observation lessons on the following :—Cotton, jute, tobacco, wool, paper, and pencil.	March and April.

Class IV.

1	Needs of a plant.	Plants require (1) sunlight, (2) air, (3) water. Plants are living things.	July.
2	Flowers	Examination of some of the common flowers of the season with reference to their carpels, sepals, petals, and stamens. The following are examples which may be examined :— Rose and jasmine—to show petals. Rose and dhatura—to show sepals. Dhatura and bhindi—to show carpels.	August.
3	Examination and classification of plants used for food.	A simple classification of plants used as food by men or animals and an examination and comparison of these. The following are examples :— (a) seeds used as food—arhar, urd, pea, gram, mung, bean. (b) fruits used as food :—orange, lemon, peas, guava, mango, banana. (c) roots used as food :—turnip, carrot, radish, sweet potato. (d) stems used as food :—sugarcane, ganthgobi. (e) Leaves used as food :—cabbage, chana sag, methi, sarson, morsa, palak.	September and Oct.

Serial number.	Subject.	Detailed syllabus.	Month of the year in which the subject is to be taught.
4	Mensuration	Yard measure ... Examination of a yard measure and its divisions. How to measure to the nearest inch. Class to guess lengths to nearest yard, e.g., length of class room, height of door, etc. These to be verified by measurements made by the class. Class also to guess lengths, to the nearest foot, of smaller objects, e.g., width of table, etc., and the measurements to be verified by experiments. Foot-rule. Examination of a foot-rule (divided into eighths and tenths of an inch). To copy part of the rule its divisions. How to measure to the nearest eighth or tenth of an inch. Measurement of straight lines. The blocks of wood of rectangular shape, rectangular pieces of cardboard, tin, etc., for measurement. Measure lengths of sides in inches and tenths of an inch and also in tenths of an inch, expressing the latter in the decimal notation. Examination (resumed) of some of the common flowers of the winter season with reference to their nectaries as well as petals, sepals, stamens, and carpels; (previously done). The following are examples which may be studied :— • Mustard, and dhaniya—to show nectaries. • Mustard and cotton—to show carpels. • Mustard, peas, beans and cotton—to show stamens. • Poppy and rose—to show sepals. • Cotton and gourd—to show petals. Observation lessons on the following :— Wood, tobacco, and common vegetable, oils, e.g., mustard, linseed, coconut and sesamum.	November. December. January. February. March and April.

Class V.

1	Seeds	Soak beans in water for a few hours and take off skins. Note the white tip (future root), separate the fleshy parts, note the white stem lying between them	July.
2	Germination	To grow and examine seeds, e.g., beans, wheat, mustard, peas, onion, etc., and to make sketches showing the stages in growth of the seeds and also to examine the seedlings by pulling up a few at intervals of about two days.	July and August.
3	Chief things needed for germination.	(a) Supply of moisture. (b) Air. (c) A certain degree of warmth.	

Serial number.	Subject.	Detailed syllabus.	Month of the year in which the subject is to be taught.
		<i>Experiments for (a) (b).</i> (1) Fill a bottle with dry seeds, put some elastic bands about it and place it under water; after a few days the bottle will be burst by the swelling seeds. (2) Place some dry seeds in dry sawdust and others in moist sawdust (an inch below the surface); compare the results after a week or two. (3) Take three small wide-mouthed bottles, two of which have good corks. Call these I, II, III. Dry I, place in it some seeds (mustard, wheat, barley) cork, and seal with sealing wax. In II put two or three layers of blotting paper (wet) at the bottom; then put in seeds and cork, and seal as before. Treat III like II, but leave the bottle uncorked. Put the bottle side by side and examine daily. In I they do not germinate, no water and little air. In II they grow for a little while but then die. In III they grow well if the paper is kept moist. <i>Experiment for (c).</i> Take two small flower pots and fill them with moist sawdust or sand. Sow some barley or wheat seed in each. Place one pot in another earthen vessel in which water is kept for cooling, taking care that the water does not reach the pot containing the seeds. Keep the other pot near the first but without cold water round it. Note that the seeds germinate quicker in the second pot than in the first. The germination is delayed with decrease of warmth and stops if there is no warmth at all (cf. how "doob" grass grows in the rainy season with moisture and warmth, when the latter is withdrawn in the cold season, little growth, if any, is made till February when "warming up" begins again).	August and Sept.
4	Roots attracted by water	Fill a shallow box, having a bottom of coarse muslin, with a layer of sawdust. Plant mustard seeds. Tilt the box by a block of wood under one end. Keep the sawdust watered. Note that the roots pass out at the bottom but afterwards turn towards the moist sawdust. The same experiment may be tried with wheat and gourd.	October.
5	Mensuration	Measurement of curved lines :— Supply pupils with bamboo cylinders (made by cutting a long piece of bamboo into portions 2" or 3" long). Determine the circumference thus :—Wrap a piece of thin paper round the cylinder; stick a pin through the overlapping parts of the paper and measure the distance between the pin-pricks; or wrap thread round the cylinder 4 or 5 times and measure the length of the thread dividing the length so obtained by the number of times it has been wrapped round.	October and Nov.

The following resolutions were unanimously passed:—That the Annual Report be adopted. That the audited accounts be passed. That this Council expresses its profound gratitude to the British Government for appointing a Royal Commission on Indian Industries, and that a special committee consisting of the Hon'ble Maharaja Sir Mansindra Chandra Nundy Bahadur, Raja Pearymohan Mukherji Bahadur, Mr. R. D. Mehta, Rai Bahadur Janakinath Roy, the Hon'ble Rai Bahadur Sitanath Ray, Rai Bahadur Krishna Chandra Banerji and Rai Bahadur Jogendra Ghose be appointed to place the views of the Association before the Royal Commission. That this Council begs to thank the Government of India for establishing a permanent museum for the exhibition of indigenous articles and hopes it will be carried on popular and useful lines. That this Council expresses its deep conviction that the only development of Indian industries which is desirable is that which can be secured by the successful starting of useful indus-

tries with Indian capital. That the Government be asked to allow people residing on the seashore or on the banks of salt water rivers to manufacture salt for home consumption. That though there is a great stringency in the money market on account of the war, the capitalists of the country be asked to take this golden opportunity and to start the manufacture of matches, sugar, boiler, glass, paper and paints at once. That this Council asks Indian capitalists to remove a great blot on Bengal by starting a jute factory. That this Council deprecates the wholly inadequate expenditure on primary and technical education. That this Council urges on the Universities of India to introduce in their syllabus some subject like surveying as was the rule before 1876 or some manual art. That the following gentlemen be elected office-bearers for the next two years:—Maharaja Sir Pradyot Kumar Tagore was elected president and the Hon'ble Maharajadhiraj of Bardwan was made patron.

Will be ready shortly.

INTERMEDIATE EXAMINATION, 1918.

BYRON:
CHILDE HAROLD

Canto IV

Edited with Introduction and Notes

BY

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SRINIVASA VARADACHARI & CO., TRIPPLICANE, MADRAS.

The Educational Review.

Before this number reaches the hands of our readers, H.E. Lord Hardinge will have laid down his august office and left the shores of India. With the possible exception of Lord Ripon, the departure of an Indian Viceroy has never evoked such feelings of genuine sorrow. The regret is only the result of deep gratitude in both the cases. We have had several occasions to refer to the wise and benevolent administration of Lord Hardinge and his specially valuable services to the cause of Indian education. And on this occasion when millions of voices are bidding farewell to a great and good ruler, we should like to join in the chorus too. If Lord Macaulay and Lord William Bentinck are remembered in Indian History as the pioneers of English education in India, the reputation of Lord Hardinge will be that of one who consolidated Indian education of all grades and rejuvenated them with new life. There has been a tendency in some quarters to assign that credit to Lord Curzon, but we have only to remind ourselves of the undoubted fact that while he was satisfied with laying down ideals of efficiency, Lord Hardinge has enabled the country to realise them by making the Government extend generous financial support. The progress in Indian education that has been made in the regime of Lord Hardinge is striking and its effects are visible in every part of the country and in every department. If the Govern-

ment did not find it possible to accept the Elementary Education Bill of the late Mr. Gokhale, they loosened their purse-strings in a manner unknown in the annals of Indian bureaucratic administration and a phenomenal increase in the number of primary schools was the result. A number of new Universities, based on some of the highest university ideals are coming into existence in various parts of the country, and the stately University edifices that will rise in Dacca and Patna, in Benares, in Nagpur, in Rangoon and in Mysore will bear eloquent testimony to the far-seeing statesmanship of Lord Hardinge and furnish inspiration to the generations yet unborn.

LORD HARDINGE ON EDUCATION.

In the course of his reply to the Bombay University in accepting the Honorary Degree of LL.D. on April 3, Lord Hardinge spoke as follows on Higher Education in India:—

I do not wish to enter into any detailed review of the recent educational policy of the Government of India, though I may mention that during the past quinquennium the annual expenditure on Education has risen from about four and a half to seven and a half million pounds, and the number of pupils by over a million and a half, while so far as University education is concerned, the number of students in Arts and Professional Colleges has increased from under 80,000 to over 50,000, and the expenditure from 60½ lakhs to over 91 lakhs. But this is not nearly enough. More Universities are urgently needed and more qualified professors and teachers are required for colleges and schools, and if real progress is desired, these must be adequately remunerated. It seems to me that the educational issue in this country is entirely dependent upon finding the

settlement of the scheme, the defect will be noticed and the claims of the Telugu and Tamil peoples will be duly recognised.

As regards the sciences, the scheme mentions that the Central College will teach Mathematics, Physics, Chemistry, Geology, Zoology and Botany and the students will be given the option of selecting any two cognate subjects. The introduction of the B. Sc. degree has for its object the training of young men who have a distinct bias for such specialisation so that there may be a constant supply of trained scientists at the disposal of the Government. The Honours Course is obviated by the institution of the M.A. and M. Sc. degrees. At present the only professional college that the University contemplates incorporating is the Teachers' College at Mysore, and for financial and other considerations, we think the Government very wisely put off schemes connected with the studies of Engineering, Medicine, Law, Agriculture, and Commerce. We hope that ere long the Mysore Durbar will be in a position to establish these colleges also so as to afford facilities for the local graduates to continue their studies in any of the professional colleges attached to their own University.

The idea of introducing the tutorial system into the methods of instruction in the University Colleges, has much to recommend it and the provision the Government have made under the head of staff may not, in our opinion, be found adequate to meet the demands on the part of the students. The University classes

will be big and the lectures addressed to such classes must needs be supplemented by the instruction of tutors and it is indicated that the standard of work will be maintained at a comparatively high level. We do not notice in the scheme any satisfactory solution offered to the somewhat complex question,—complex because of the three years degree course and an additional year at the High School,—of the admission into the Mysore University of students of British India. If the Mysore Durbar does not sympathetically view the question, it is likely there will be room for complaint and we are of opinion that the Madras and Mysore Universities should come to some common understanding to work this mechanism of admission, however much we may deprecate frequent changes from college to college. At first sight, the Mysore University authorities in their scheme of examination would appear to go about education in the wrong way, for they appear to have imbibed some of the worst features of an examining University. It is proposed to have one examination at the end of each year, till the student completes his University career and one may add that examination is not the means of teaching.

The other features of the new foundation are the organisation of bureaus of publication and extension work and the institution of the residential methods. Both are commendable and we hope advantage of these provisions will be taken by the people of Mysore. The one is as important for the diffusion of

knowledge as the other is for the fostering of a social and corporate life among the students and the professors. Athletics and physical culture have not been forgotten and the appointment of two Directors of Physical Culture, one at Bangalore and the other at Mysore ought to create opportunities for testing the physical efficiency of the students and for suggesting treatment or alteration of studies so as to conserve the vigour and balance of the Mysore youth. Several other University amenities, such as aquatic sports, in-door recreations, unions and so forth have been thought of, by way of adding interest and happiness to the otherwise monotonous life led by students within the University area. We understand that the site selected for the University and the staff buildings, is a magnificent one, overlooking the town. It is at once elevated and healthy, detached from and yet within easy access of the city.

The administration of the University will be controlled by a Council whose executive head is the Vice-Chancellor. H. H. the Maharaja is to be the Chancellor and it is a wise step taken to secure a preponderance of expert opinion in the Counsels of the Senate and the Syndicate. Fellows will be both nominated and elected and the Syndicate reserves extensive powers of patronage. The most noteworthy feature about the constitution of the new University is the establishment of committees for students' affairs, advice to students proceeding to foreign Universities, for the mainten-

ance of University grounds and buildings for preparation and scrutiny of University budgets and finance and other matters, which will considerably add to the tone of the government of academic organisation.

Under the head of finance the scheme contemplates an immediate expenditure of about Rs. 13.75 lakhs on buildings in Mysore which include a Senate House, an Examination and Lecture Hall, Teachers' College, and staff quarters, besides extension and improvement of the hostels in the two centres. The annual recurring expenditure incurred on account of the two colleges is considerably enhanced by the addition of nearly Rs. 4 lakhs. The provision of a large allotment in the Government budget is one thing and an equitable distribution of the same to remunerate the staff so as not to engender any feeling of injustice leading ultimately to undesirable effects on the University education is quite another thing.

The courses of studies that have been appended to the tentative scheme appear to be well considered and directed towards the attainment of the aims indicated in the preamble. A vigorous prosecution of studies on the lines set forth, ought to produce distinctive features of their own in the Mysore graduates who may not suffer in comparison with those of the neighbouring provinces.

We have received a vigorous protest by Mr. Datto Waman Potdar of Poona against the teaching of Sanskrit in our schools through the medium of English. Nothing can be more absurd than teaching Indian boys to construe Sanskrit into English. The Indian vernaculars are either derived from Sanskrit or are so dominated by the influence of Sanskrit that it is the easiest thing in the world to construe Sanskrit into any Indian vernacular. And though English and Sanskrit belong to the same family of languages, English has travelled so far from its Indo-German parent-tongue, the structure of English has changed so much that it is very difficult to convey in English not only the subtle nuances of Sanskrit style but often the very meaning of Sanskrit *śloka*s. And yet the organization of education in this country is such that Sanskrit has got to be taught and examined in English by men who know much Sanskrit but little English! But this system of teaching one foreign language through the medium of another is robbed of its absurdity by the fact that it has become mamool for fifty years; and our Fellows who clamour so much for efficiency quietly acquiesce in this "very height of nonsense and absurdity," why, we cannot guess! "Fifty long years have passed and our young students are still made to suffer the horrible penalty of learning Sanskrit through English, are still made to undergo the unnecessary trouble,

worry and labour of repeating the English equivalents of Sanskrit words, of translating from and into English, of learning by heart difficult grammatical rules which they never understand until they are explained to them in their vernacular." And in the Madras University, the translation from Sanskrit into English is an integral part of the Intermediate Examination, serving as a substitute for vernacular composition. The object of the latter test is to stimulate the desire in our students to convey western knowledge to the common, uneducated man; and the test in translation from Sanskrit to English mysteriously serves the same purpose! how no intelligent man can understand. And yet the wise professors who strive for efficiency in the University have no word of condemnation for this evil. The only use of Sanskrit Translation in the Intermediate Examination is to contribute its own share to the keeping down of the number of passes, so dear to the heart of some of our Fellows. In other Universities Sanskrit is practically compulsory and "the sad, iniquitous, shameful and strange spectacle of our boys learning Sanskrit through English is a much greater evil than in the Madras University, where Sanskrit study is dead, with no chance of revival.

The Honourable Mr. J. H. Stone, speaking as President of the Prize-distribution ceremony of the Calavala Ramanujam Chettiar's High School,

The Madras Director of Public Instruction on examination passes.

Perambur, made two very interesting statements which, coming from a person of his authority, fill us with joy. One was to this effect:—"At Home in England people were very much exercised over the question of vocational teaching. One party was strongly against such teaching and another in favour of it as it would directly fit the boys for life. Personally he was on the side of vocational teaching for what was education unless it should prepare people for life." We welcome this pronouncement from the head of the Department of Education, for it leads us to expect that Mr. Stone will use his enormous influence with the Government for reorganizing our public education in such a manner that our pupils will be trained in our schools to be fit for the various vocations life has to offer them. At present the subjects of school teaching—Arithmetic, Geography, Elementary Science, History, etc., are handled in a fashion as remote from the actual needs of the pupils after the end of their school life as possible; and other subjects which will help them to follow some useful vocation or other are eschewed from school work and it is hoped that the vivid realization of this evil by the Director of Public Instruction will lead to its being remedied in the near future. Another equally interesting pronouncement of Mr. Stone is his unhesitating condemnation of the examination-mania, so widely prevalent in this country. He is reported to have said, "when people talked about education, the desirability of spreading education and the need for

education, they were not thinking about education at all, they were thinking of some kind of label that could be tacked on to his name. When they asked for extension of education, they only asked for a large number of labels. He asked each of them to put to himself the question whether he was not a believer in these labels; and unless the answer was in the negative, they were not helping to form a healthy public opinion." We are very glad that the Honourable Mr. Stone, speaking with all the authority of a Director of Public Instruction has thus publicly condemned the absurd importance attached to passing examinations and the consequent confounding of examination with education. Some years ago, when the S. S. L. C. scheme was introduced in the Madras University, it was felt that though the scheme was fraught with grave defects, it had this merit, that it reduced to a minimum the value of passing examinations and focussed attention on teaching. But recent changes in educational policy have restored examinations to a dominant place; the old Matriculation has been re-enthroned under another name; the opinions of school teachers and college principals on the performances of pupils at school has been discounted, and the spirit of the S. S. L. C. scheme has been killed but its evil still remains. It is widely believed that these changes have been effected on the recommendation of the Hon. Mr. Stone. Whether this is true or not, now that he has publicly pronounced his appreciation of the evils

of the predominance of examination on school life. We expect he will cut at its root this evil and help to prevent the University from interfering, as it does now, with school work by holding a Matriculation examination of school pupils or by controlling the working of the S. S. L. C. scheme by insisting on the labels "passed" or "failed," labels so unhesitatingly condemned by the Head of the Education Department of the Madras Presidency.

The United Provinces Gazette of 8th April, 1916, publishes the Curriculum for Vernacular schools for 1916-17, a perusal of which shows that the methods of teaching pursued in the United Provinces are of a primitive nature. Thus in the matter of Reading, one class of the Preparatory section, called Class A, is devoted to the training in reading "simple and compound characters at sight." This work is to be done from sheets and the blackboard. It is bad enough that the teaching of reading should begin with the individual letters of the alphabet in the case of the Roman Alphabet with its limited number of signs. When this is extended to the extensive Devanagari alphabets with its vowels and vowel-marks, its simple and conjunct consonants—the total number of letter-forms going up to several hundreds, many of which *never occur in words* but are learnt merely for the theoretic completeness of the alphabetic system, school work becomes the

dreariest of dull drill. The proper method is to begin with simple words analysed into sounds and letters, but of this there is no hint in the official curriculum. In Class B the pupils are expected to "read sentences at sight from the text-book and know the meanings of words." We cannot guess what is meant by reading "at sight." The necessity to know the meaning of words in Class B and of "words and sentences" in Class I. indicates that school Readers are not written in a simple style, such as boys can understand without every word being laboriously construed, as when one learns a foreign language, but that they are loaded with a wealth of synonyms and learned, lumbering Sanskrit compounds, the knowledge of which is, too often, confounded with real knowledge in Indian schools. With Class V begins the "literary course with grammar," the culmination of which in Class VII is the "translation or paraphrase into modern idiomatic prose from standard authors;" this is a naive confession that the standard authors studied do not write in the modern vernacular nor are they "idiomatic." This is of course true, but while this is recognized by the Department of Education, it is surprising that such authors should be made compulsory subjects of study. The Arithmetic course is equally primitive with the reading course. The boys are not introduced to the fundamental arithmetical principles by the handling of concrete objects, by measurement and "number and space work" but by the crude method of notation, numeration,

addition, subtraction and memorizing of tables. Apparently there is none in the United Provinces acquainted with modern methods of teaching. Geography, too, begins as in good old days with the shape and size of the earth, and proceeds with the orthodox enumeration of towns and the memorizing of dry details. There is absolutely no attempt at practical work, at making the teaching appeal to the imagination of pupils. The curricula as a whole seem to have been drawn by people who underwent elementary education fifty years ago and have embodied in the scheme whatever they remembered of the work they did when they were primary school boys.

We welcome the appointment of Mr. P. A. Subramania Iyer, B.A., L.T., Headmaster, Triplicane. Taluq High School, Tenali, as Headmaster of the Hindu High School, Triplicane. The Hindu High School has had a good tradition in the past and the Headmastership of that institution has naturally come to be looked upon as one of the important offices in the non-official educational world of this Presidency. Mr. P. A. Subramania Iyer is one of the rising educationists of our Presidency and we have no doubt that under his auspices, the High School will rise to a very high level of efficiency. An impressive and enthusiastic teacher, capable of great energy and devoted to his work in a spirit of the highest self-sacrifice, Mr. P. A. Subramania Iyer brings very valuable qualities to bear upon his

future work as Headmaster. He has always taken a keen interest in educational problems and his presence will be a useful asset for educational work in the metropolis. Mr. Subramania Iyer will justify his appointment as Headmaster of this important and popular institution. It may not be out of place to mention here that the destinies of the school have been presided over in the past by such prominent and distinguished gentlemen as the late lamented Mr. G. Subramania Iyer, Messrs. T. R. Venkatasami Naidu, B.A., S. Anantanarayana Iyer, B.A., B.L., Prof. K. B. Ramanatha Iyer, M.A., B.L., L.T. and the Hon. Mr. V. S. Srinivasa Sastriar, B.A., L.T.

The Committee of Management of the Hindu High School would have done ample justice both to the school and the acting incumbent, if they had made this appointment some eighteen months ago when the office of Headmaster fell permanently vacant. Better late than never. The thanks of the public are due to the Committee for their efficient, careful and progressive management of this old indigenous institution, and in particular to the devoted Secretary, Dewan Bahadur M. O. Parthasarathy Aiyangar Avergal.

The recent celebration of the Silver Jubilee of the Purasawalkam Hindu High School. School has brought the useful educational institution into prominence. The Hon. Sir P. S. Sivasawmi Aiyar presided and the Hon. Mr. V. S. Srinivasa Sastriar, whose services to edu-

cation have been as manifold as his experience has been wide, delivered the address on the occasion. Quite a unique feature of the institution is the fact that it is entirely the result of indigenous effort, and it furnishes a useful object-lesson to the other parts of the Presidency. The Committee of Management deserve to be congratulated on their having been able to secure the active sympathy and support of such a generous educational philanthropist as Rao Sahib C. Ramanujam Chettiar of Madras. Appeals in aid of noble causes are never made to Rao Sahib C. Ramanuja Chettiar in vain and in thus coming forward to take the Purasawalkam Hindu High

School under his fostering care he has added substantially to the useful work he is doing in the metropolis. He has not only met the annual deficits in an ungrudging spirit, he has also consented to erect a new building to the school at a cost of forty thousand rupees. In appreciation of the large-hearted generosity of the donor, the authorities of the school have resolved upon naming the school after him and we have no doubt they are honouring themselves by honouring the name of such a noble citizen. The success of the school is due, in a large measure, to its energetic Secretary, Mr. V. Desikachariar, B.A., B.L.

SOCIAL LEGISLATION UNDER HINDU GOVERNMENTS

BY

PROF. S. KRISHNASWAMI AIYANGAR, M.A.

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THE PROVINCIAL EDUCATIONAL CONFERENCE, MADURA.*

GENTLEMEN:

OF late we have been passing through a period of extreme educational unrest. The past twelve years have witnessed frequent changes in the organization of education in this Presidency, as in other parts of India. During this period, the old Madras University Senate, a body consisting of educationists, philanthropists and others, was dissolved and a new Senate, conceived as an ideally efficient one has been created. This body has evolved a scheme of studies and examinations, which apparently embodies so little of the aims of the Senate that the Senate has been constantly tinkering with its own scheme, that twice and sometimes thrice in the course of

each year, some important element of the scheme is dropped, some new change introduced, the syllabus of some subject is revised, the importance of another reduced, all these changes dependent not on some pre-conceived and self-consistent plan but made to meet the wishes of the majority of Fellows who happen to vote on that particular point. Similarly, in the sphere of secondary education, profound changes were attempted to be introduced; the domination of the University over school work by means of its Matriculation examination was attempted to be abolished; some latitude was allowed to masters in their choice of school subjects and methods of teaching so as to adapt them to the needs of their pupils and the possibilities of their schools; the assessment by Headmasters of the daily work of the pupils at school was introduced as a factor in considering

* Presidential Address by Mr. P. T. Srinivasa Aiyangar, M.A., L.T., F.M.U., on 19-5-16.

their attainments and progress. But the same spirit of constant tinkering, of half-yearly changes of rules and regulations on the part of the University and the Department of Instruction has so altered the scheme for the award of Secondary School Certificates that all its distinctive features have been lost, all its good points lopped off and all its evils accentuated so that now the Secondary School Leaving Certificate examination writ large. In elementary education also, the feature of restlessness is noticeable. New subjects have been introduced, new methods of teaching, good in themselves, but such that the average elementary school-teacher is incapable of coping with. Notwithstanding these changes, perhaps on account of them, the problems that a critic of our present educational system has to consider are very many and the problems he has to try to solve are very puzzling, so much so, that he can at best choose but a few for discussion.

The most important question, in my opinion, for consideration, is the position of linguistic studies in our educational system. The course of the world-war that is now raging has brought home to most people, what scientists have been crying themselves hoarse over during the past one hundred years, that a literary education is not the best preparation for life in the modern world. Public life in England is so organized that the maker of finely-tuned phrases becomes the ruler of men and the prizes of life are

practically denied to the man who has learned to deal with the realities of matter and life in the laboratory and the field. The physicist, the chemist, the biologist and the sociologist cannot rise to responsible positions in the administration of public affairs; he has to remain apart, a member of a special caste, a kind of scientific Brahmin, proud and poor and with little influence in the making of contemporary history; while the man who has studied the humanities, whose mind has been fed with the culture of the classics, whose faculties have been trained in solving the grammatical puzzles of Latin and Greek, has been regarded as the beau-ideal of culture. This is because education in England has not yet thrown off the taint of its origin in mediæval schools where monks learnt Latin and Greek, not primarily for developing the mental faculties but as a means of mastering sacred literature. Education in India is a far off echo of education in England, with this difference that English here has taken the place of Latin and Greek. Hence the study and teaching of English has become the dominating factor of our schools and colleges, so that half, probably more, of the time and attention of our students is occupied with the acquisition of the English language and the study of English literature. In saying this I do not mean that the degree of mastery of the English language aimed at in our educational institutions ought at all be reduced; that the study of English literature—which, alone, is the

source of modern ideals of life and conduct, ought to be lessened, and that the constant effort to raise the standard of the acquisition of English and improve the study of English literature in our schools and colleges ought at all be relaxed. But I certainly mean that the study of a language and literature which necessitates or at all leads to the exclusion of the study of science is not modern education, that the study of language is but the study of words, and it is a knowledge of things and not words that is true education. True education is, rather, such as can inform the mind, sharpen the faculties of observation and judgment and improve the efficiency of the life of man, as a citizen of a modern State. The chief reason for this state of affairs is that the examinations in English are far too elaborate. Except for the student for Honours in English the English examination need be no more than a test to see whether the students possess a working knowledge of modern English. I do not urge that our students should read less of English literature than now; on the contrary I want them to read more; but the necessity to pass a needless examination on a number of set books employs all their energies and diverts them from the acquisition of the knowledge of things that ought to be the aim of all real education. Sir Alfred Bourne, when he was Director of Public Instruction, realized this evil so vividly that he seriously considered the question of abolishing the English portion of all public examinations, judging, and rightly

so, that the student's command of English can quite well be judged by his performances in the papers on history, geography and the sciences. I do not go quite so far as Sir Alfred Bourne wanted to, but I certainly hold that the elaborateness, not of English studies, but of English examinations is an evil in so far as it leads to the domination of language study to the exclusion of scientific study in our schools and colleges. For our education will continue to be worth nothing, so long as it is not reorganized in such a way that the study of science and the training in observation and experiment dominates all school and college work. Mr. G. H. Stuart, a former Director of Public Instruction, wanted to remodel elementary school work so as to take elementary school pupils through a seven years' course in modern science, beginning with the general properties of matter and ending with electricity and magnetism. This splendid scheme miscarried, no one knows how; if not, it would have led to a revision of our secondary school work and college work on the lines of modern education and the B.A. would have become something more than a person expert in holding forth on public platforms for hours together in a jargon which is a mixture of Shakespearian English, Johnsonese and twentieth century vernacular English!

Next in importance to the question of the position of English in our educational institutions is that of the function of the vernaculars of Southern India in our public education. Here a distinction has to be

drawn between vernacular literature (as well as Sanskrit literature), and the culture which they embody and of which our pandits are the exponents on the one hand, and on the other the spoken languages which educated men speak and which we use on platforms when we make appeals to the patriotism and public spirit of the people and by means of which we try to impart to them modern ideas and ideals which we derive from our study of English literature and modern science. The literatures of Sanskrit and the Indian vernaculars have their own intrinsic beauty and value, and the culture they embody—our age-long culture—is the basis on which has to be based our national growth. Most of this culture we imbibe from the social atmosphere we live in; but I doubt the wisdom of making the study of this difficult literature a compulsory portion of educational work. As it is, the student in his ordinary work swims in a flood of “words, words, words;” to add to the quantity of word-knowledge to the further exclusion of a knowledge of things seems to me to be very unwise. These considerations do not apply to the question of the employment of the modern vernaculars as the media of instruction in what are luminously called knowledge-subjects. It is absurd that school teaching is now being conducted in a language foreign to the pupil and but half-mastered by the teacher. This was not so till about forty years ago. I remember I learnt my First Book of Euclid in Tamil. But thanks to the

skill of English publishers in pushing the sale of their school books in our country and to the constantly increasing supply of English-knowing teachers in our schools, but chiefly to the domination of the University Matriculation examination, conducted in English, over school work, “English has become the medium of instruction,” as it has been called, “in non-language subjects.” It is a sin against our youth that they should be compelled to do all their school work in English; the struggle with the difficulties of school subjects, presented as they too often are in a dreary, pedantic way, following the lines of a perverse pedagogic tradition remote from the interests of life, added to the struggle with the difficulties of a foreign idiom make school life anything but pleasant to the average pupil. No one who has witnessed the vacant looks of the school student while he listens to a scientific lecture in English saturated with vernacular idiom will vote for the continuance of this system, notwithstanding the special pleading recently made in the Madras Legislative Council in favour of the use of English in all girls’ school work.

This question of doing all school work (except the teaching of English) in the vernacular was first raised by me in a conference held in the Director’s office about sixteen years ago, soon after Mr. G. H. Stuart became Director of Public Instruction. It was opposed by some Madras educationists on the plea that the Madras school population was

polyglot. As usual it was attempted to make the mofussil schools suffer for the sake of the Madras schools; but the upshot of the debate was that the use of the vernacular was permitted in Forms I, II and III, then called the Middle School Department in the teaching of subjects like Arithmetic, History and Geography. This, I believe, has now become general; and I do not see why the subjects grouped B—Elementary Science, Indian History, Geography, &c., should not be done in the vernacular. I am doing so in my High School Department and I think it is an experiment worth trying on a large scale. And I also wish that all subjects of the school course except, of course, English may be brought under group B and be taught in the vernacular. Then real, good, intelligent teaching, according to modern methods may be attempted on a satisfactory scale and the pupils who complete their secondary school course under these conditions will, I am sure, prove far better educated and intelligent than those of the present generation.

I have referred to the S.S.L.C. scheme. It was originally intended to embody a few fundamental principles. The ultimate origin of the scheme was a demand by the veteran educationist, Dr. W. Miller, that the Matriculation examination should be conducted not by the Examining Boards of the University but by a special Matriculation Board. The Matriculation examination served a double purpose—(1) that of selecting from among the pupils that have finished their secondary school course those that might

be considered to be qualified to be admitted to a University course and (2) that of finding out which among them might be considered to have attained the amount of knowledge which might justify their being regarded as having finished their secondary school course. It was found in the course of the long history of that examination that the University Examining Boards were unfit to conduct an examination with this double object; for University examiners generally were men primarily interested in the higher University studies and so viewed the examination only as a means of separating the wheat from the tares, those who in their opinion were fit for University studies from those who were not. Hence the examination broke down as a school leaving test, the interests of the majority of school pupils who did not and could not aim at a University course being sacrificed to the interests of the minority. It was also found that the examination reacted in an evil way on school teaching; for school work came to be organized not for imparting to each pupil that kind of education that was most useful to him, not for bringing out all that was best in each High School pupil, but for enabling as many pupils as possible to pass the examination and for rejecting those that could not as failures, as duffers unfit to benefit by school education. Thus, again, the interests of the many were sacrificed to the interests of the few. There must be something fundamentally wrong in an organization that resulted in the majority of school pupils becoming

failures, for every pupil is fit for successfully attaining some kind of secondary school course or other and one inelastic course topped by one inelastic examination was clearly unsound from an educational point of view. It was also felt that professors of colleges, exponents of the higher learning and admirers of academical ideals, were unable to sympathise with the prosaic, utilitarian aims of school work, its limitations and difficulties and unfit to appraise correctly the success or otherwise of the humble schoolmaster's efforts to impart knowledge to the school pupil or to gauge properly the quantity of knowledge imbibed by the average school pupil. It was also felt that examinations had usurped such a dominant place in the minds of masters and pupils that instead of examinations being a means, they had become an end; instead of examinations being an incident in school life intended to test the work of pupils, school work was regarded merely as a means to pass examinations—in other words real teaching work, education in the best sense of the word, was abandoned in schools, and all school work became merely a scientifically organized method of cram for the purpose of enabling pupils to pass examinations with as little real learning, real mental training as possible. It was also felt that an examination in which several thousands of candidates had to be tested by a troop of examiners gradually tended to become an inhuman, mechanical affair and that hence its results tended

to become unreliable, sometimes absurdly so, except in the case of the extremely clever and extremely dull. It was found that a very large majority of the pupils of schools were neither extremely clever nor extremely dull, *i. e.*, the average pupil attained an average level of efficiency and that the slightest accidental variation in the severity of the test either led to a ridiculously large number of passes or a more ridiculously large number of failures. It was felt therefore that examinations were doubly harmful, first in that in the special circumstances of the country, when the passing or failing in an examination meant the success or ruin of a life, when the passing of examination had a direct money value, examinations were bound to dominate school work, and secondly the results of examinations were so unreliable. It was also felt that the man who could test and pronounce a reliable opinion on the work, the capacities and the tastes of a pupil was his master and his master alone and not the external examiner; and that no pupil should leave school branded as a failure for all time to come, such branding being merely a defect of the organization and not of the master or pupil.

The S. S. L. C. scheme was devised with all these considerations in view. It was a halting measure of reform, and administered from its inception in an unsympathetic spirit. Being an attempt to wrench secondary education from the domination of the University, it was never given a whole-hearted welcome

by the University. In fact the University has always been jealous of all attempts to sever secondary studies from its control. The old Upper Secondary examination scheme embodied the first feeble attempt to make secondary education independent of University control; the opposition of the University strangled it soon after its birth. The S. S. L. C. is the second attempt, which has also all but miscarried; and it will require all the vigilance we are capable of, all the skill of organisation that we can command to secure the recognition of the principle that secondary education deserves to exist on its own account, that it is not a preparation for, or a pendant of, University studies, but an end in itself, with its own aims, its own methods quite independent of those which belong to the province of University studies, that High Schools exist not for the purpose of enabling one per cent. of the pupils that join them to become B. A.'s or M. A.'s but of giving the other ninety-nine per cent. the best education that they are capable of and preparing them for earning their livelihood and leading their lives as educated citizens alone are capable of.

The same general defect—that of sacrificing the interests of the many students of average ability to those of the few clever ones—is the main note of the organization of our University studies. Our University Regulations regarding the courses of studies and examinations leading to University degrees are vitiated by the deliberate avoidance of the re-

cognition of the differences that ought to exist between Pass degrees and Honours degrees. All Universities that are not technological or specialist ones, all Universities for general education provide a Pass course for the average man who is incapable or undesirous of academical, honours, but the Madras University has sedulously avoided this. I do not now feel called upon to refer to the inter-collegiate jealousies that led to this and brought about the framing of a parallel course of two degrees—the B. A. and the B. A. Honours—of more or less equal standard of difficulty. But whatever the cause, the fact is deplorable. In my opinion our colleges ought to be open to every young man that can pay for collegiate education and speak and write fairly correct English, provision being made for an early separation of Pass men from Honours men. Some courses of education which will suit the Pass man and not send him out into the world as a failure ought to be devised, while stiff courses of studies, quite as good as in European Universities ought to be provided for the Honours men. Such a clear separation of Pass courses from Honours ones will also solve the vexed question of what has been called the compartmental system of examinations about which there has been recently so much fighting in the University Senate. The only argument that has been urged against permitting candidates to take their examinations in easy stages is that it will lower the efficiency of the examinations. This is quite true;

I yield to none in advocating the necessity for constantly improving the standard of our higher education and for so administering University affairs that our best graduates may be in no way inferior in attainments to those of other Universities; but I hold at the same time that this argument applies only to the Honours man and not to the Pass man. Colleges exist for the purpose of developing as far as possible the talents of each and every student that enters them and not for the purpose of weighing their talents and turning out the majority of them as weighed and found wanting. University legislators, professors and examiners are too often prone to regard themselves as wine-tasters of the employers of educated labour and imagining that it is their constant duty to raise the standard of educated labour supplied by them. On the contrary it is their duty to so legislate and teach and examine as to make most of the capacities of the young men that seek education, to send them out in the world as successes, each in the kind of work he is fit for and not as failures with reference to one fixed, unalterable, uniform standard of attainment.

The provision of a Pass degree will also render possible the improvement of the Intermediate examination. At present it serves as a final examination in the case of many students who wish to secure a University certificate having some market value; it is also a Matriculation examination, being the first

examination held by the University, and being used to eliminate those unfit for an Honours course; besides it is an Intermediate examination for the ordinary degree, marking a half-way stage in its course. This multiplication of functions, and the inadaptability of its provisions for the Pass men, are the real causes why the number of failures at the Intermediate examination is so large; in no other country will people put up patiently with the arrangements that lead to such deplorable results. The introduction of the system of passing the Intermediate examination in easy stages, and the revision of its courses so as to lighten them are urgently necessary, at least in the interests of the Pass men; perhaps some such measure is necessary even for the Honours men, for I do not see the wisdom of providing University courses in such a manner that a man who, like Mr. Ramanujan of the Cambridge University, has special aptitudes in one field of knowledge, may be stopped at the Intermediate stage merely because he is incapable of satisfying his examiners in English literature or Vernacular composition.

The revision of our University courses of study so as to provide various Pass courses suited to the students of average ability will solve another long-standing University problem—that of the second-grade colleges. It is but right that facilities ought to be given to these colleges to become first-grade; but this will be impossible so long as there are no Pass courses, the equipment for which

is within the reach of the management of second-grade colleges. They cannot provide for Honours courses; and the provision of professors and laboratories for the ordinary degree courses is quite as costly as those for Honours courses; but if the courses of the ordinary degree be revised so as to make it a real Pass degree, not only will the intolerably large number of failures which cause so much unhappiness to our student-population be avoided but opportunity will be given for second-grade colleges to become first-grade and for collegiate education, though not of the highest type, to spread among the people of this land.

Turning now to the other end of the scale, I shall briefly refer to the condition of elementary education. We all know that Government has recently paid considerable attention to the improvement and the spread of elementary education, chiefly as a response to the demand for the introduction of free compulsory education in the land. Seeing that the resources of the State are limited, I do not see that there is any point in demanding that elementary education should be free in the case of those that are able to pay for it. Compulsory elementary education has been accepted as the ideal in all civilized States; this ideal can be reached either by the gradual extension of elementary education by increasing year by year the number of elementary schools or by trying compulsion, as an experiment, in selected municipal areas. The former policy the State

is now pursuing and let us hope that in the near future sufficient schools will be provided that it will be possible for a very large proportion of our boys to seek and obtain elementary education. But, at the same time, I do not see there will be any harm in experimenting with compulsion here and there. I am averse to deciding the question of compulsory elementary education, one way or the other on *a priori* grounds. Actual experiments in compulsion in carefully-selected places can alone help us to decide how far behind the desirable goal we are and how we can work up to it.

Before I close, I shall refer to one question and that is the elusive phantom called teaching grants. This is supposed to be calculated mechanically according to some fixed rules but as a matter of fact no one knows how the amount of teaching grants allowed to an educational institution is fixed. And once fixed, there is absolutely no guarantee that the same amount will be paid for any definite number of years. Once these grants were called fixed grants, but now they are fixed neither in name nor in character. For if a school on account of increased efficiency or popularity or luck gets a temporary increase of revenue, and its management by special dodges cannot budget for a nominal minus balance, at one stroke the teaching grants are cancelled, and once cancelled, there is no knowing whether they can ever be recovered. The ideal view with regard to teaching grants in England is that the State should pay

from its funds the whole salary of the establishment and the revenues of the management should be spent towards the cost of building, equipment and current contingent charges. This is right. Even in India, in the earlier days the Government grant used to be 50 to 33 per cent. of the salaries of teachers and was paid without reference to the fluctuations of the school budget. Recently there was a Conference in the Director's Office with reference to grants. Nothing is known to the public about the resolutions of the Conference. Therefore let us hope that generous counsels have prevailed and schools and colleges will be paid in the shape of teaching grants if not the whole of the salary of the establishment, at least a good part of it and that such grants in future will be fixed and not a floating quantity.'

Gentlemen, I have touched—and that all too briefly—on what I regard as the most urgent of our present day educational problems. As things now go in India, we educationists have but very little influence in the body politic generally as well as in the administration of our Department. Moreover such is the organization of the State that the best intellects are perforce driven to seek the prizes of life in departments other than ours, for compared with other professions in India, ours is a miserably paid one. People praise our work as a noble one and expect us to take the praise for pay and even object to our resorting to private tuition to help to make our hire something like a living wage. We must,

therefore, form influential associations, organize our efforts not only to secure a reasonable scale of pay and prospects, but also to see that our voice is heard in the administration of educational and other public affairs. As an immediate objective of your efforts, I suggest the reorganization of all studies so as to make the teaching of science, the imparting of a knowledge of things in the place of a knowledge of words, the adoption of the vernaculars as the media of teaching science, the complete severance of secondary school work from the control of the University, the creation of Pass courses in the University, and the rapid extension of elementary education and a generous administration of Grants-in-Aid. Education, modern education of the right stamp, is alone the cure of all the ills of the body politic and I close by expressing the hope that by our united efforts we educationists shall acquire enough influence to direct the course of education in right channels and bring about that development which alone will start the country on a career of prosperity.

In Preparation.

COLLEGE ALGEBRA

*A Text-book for the Intermediate and
B.A. Classes*

BY

K. R. RAMASWAMI AYYANGAR, M.A., L.T.
Professor of Mathematics, College of Engineering, Madras.

Srinivasa Varadachari & Co., Madras.

THE TEACHING OF LOGIC.*

LADIES AND GENTLEMEN,

FOR over two thousand years Logic has been a subject of academic instruction. In all civilised countries of the world logic has been given a very important place in education. In the East monarchs have vied with one another in honouring logicians and showering favours upon them, and in quite a large number of Universities in the West, logic has been established and endowed with a vast number of professors. You will perhaps be surprised to hear that in the University of Oxford till very recently the term 'Science' meant Mental and Moral Science—Logic, Psychology and Metaphysics. A doctor of science of the Oxford University knew no more of electricity or physiology than you or I know. Such was the place once occupied by logic, and philosophy in general. But of late a marked change has come over the career of philosophy, and particularly of logic. The impression has got abroad that philosophy and logic are mere idle speculation or quibbling of an unprofitable kind, and that the costly professorships of logic may be abolished and really useful chairs of engineering, technology or agriculture established in their stead. The description of philosophy as 'looking for a black horse in a dark room where there is no horse' is a fairly good illustration of the esteem in which philosophers are held now-a-days. I know that some of you will heartily subscribe to the above description. Knowing as I do that you will not take kindly to a subject like logic, I have ventured to take it up, not because I hold a brief for logic, but because I want to make an earnest attempt to examine why it has been thrown into disrepute and whether and how it can be placed again on a secure and honourable basis.

* A paper read at the anniversary of the Salem Teachers' Association with Miss A. M. Crouch in the chair, by Mr. G. Rangaswami Iyer, M.A.

I confess at the outset that the logic I have to teach to the Intermediate class, in a way, tends to compromise my self-respect, and I have to depend more on the obtuseness of my students for its preservation than upon their intelligence. The theory of logic that has come down to us is so full of inconsistencies and unnatural abstractions that in the class-room the teacher is forced to slur over some difficulties and ignore the rest as falling beyond the pale of logic.

It will be a worthy task to examine the whole doctrine of the old logic and point out the inconsistencies and absurdities to which it leads honest thinking, but for purposes of this paper I shall simply mention some of the more serious drawbacks which vitiate the system, and then point out how it is necessary to prune it of them all, in order that it may serve better the purposes of education.

The central core of logic, the doctrine of the syllogism, may well be regarded as a set of rules for playing a certain kind of game with words, and a set of technicalities the function of which is partly to state the rules of the game and partly to explain the methods that have from time to time been invented to play it successfully. The conception of logic as a mere game was far from the minds of its founders. Both the original purpose of the doctrine and its development through the Middle Ages were as serious as could be. It was invented in order to provide a final and indisputable criticism of arguments, a coercive method of settling disputes, by formulating the ideal of true knowledge and the universal form of demonstrative reasoning. The game itself is played with syllogisms, that is to say, with groups of three propositions constructed in such a manner that from the combination of two of them called premises, a third, the conclusion, is drawn. The main object of the game is thus to draw legitimate or valid conclusions, if any, from two given premises, and to avoid drawing from them a conclusion

which is illegitimate. For instance, the two premises, "All men are liars" and "Harischandra is a man" yield a legitimate conclusion "Harischandra is a liar;" for the legitimacy of a conclusion is not the same as its truth; for the same reason, the two premises "All lions are herbivorous" and "All cows are lions" yield a valid conclusion "All cows are herbivorous." Again if you take the two premises "All bad workmen complain of their tools" "Dick complains of his tools" you cannot infer from them that "Dick is a bad workman." He may as a matter of fact be an idle bungler, but the two premises do not warrant the conclusion from a strict logical point of view. Further, we are called upon not only to see at a glance the illegitimacy of a faulty conclusion, but to give the name of the fault correctly. There are certain technical names for all the faults that a syllogism can have; and we may be asked to state the particular fallacy a given wrong syllogism illustrates. The fallacies are few in number and easily learnt, but in order to explain them we must first know some other technicalities. It is here that we have to learn the rules of the game. There are eight or nine rules which regulate syllogistic reasoning. With these rules at our fingers' ends we can easily discriminate between valid and invalid syllogisms, and also discover when a conclusion and one premise only are given, what the other premise must be in order to make the conclusion legitimate.

It will be seen from the examples of syllogisms given above that all that logic cares for is the observance of some formal rules and that its concern is simply to secure the consistency of the conclusion with the premises, however absurd these may be in point of fact. That this procedure should be countenanced and cherished as its special excellence by a science which professes to regulate thought is indeed a pity. The explanation of this unsatisfactory state of things is

not far to seek. The whole enterprise of deductive logic is based on the assumption that it is possible to separate the *form* from the *matter* of thought. By the separability of form and matter logicians mean nothing more recondite, than the fact that two different propositions may have the same logical character, and that arguments dealing with different subject-matter may be thrown into the same syllogistic mood. Thus the two propositions "All men are mortal" and "All material bodies gravitate" are of the same form though their matter is different; and in like manner, the arguments

All metals are elements.

Gold is a metal.

∴ Gold is an element

and All nations that do not respect treaties are uncivilised.

Germany is a nation that does not respect treaties.

∴ The German nation is uncivilised,
differ in matter but are of the same form.

At first sight this notion of separating the form from the matter and dealing with one of them at a time looks simple and sensible enough, but the application of it is full of difficulties. In actual fact every logical assertion is determined by a mass of emotions, wishes, desires and imaginations which makes up the mental life of every individual. It is intimately bound up with this context. Hence it cannot be treated apart from the psychological conditions in the midst of which it is born without loss of meaning. Unless the context or the circumstances in which the assertion is made are known, no one can understand fully the meaning intended. The only meaning left to it is the meaning of the words, but there is no guarantee that this coincides with the actual meaning, and a strong probability that it does not bring out the whole of it. Thus the formal view of logic, because it ignores the sources of an assertion in the person

ality of the thinker, fails to grasp the nature of actual human thinking and lapses into mere verbiage.

Again a considerable part of what is usually taught as elementary logic has no direct connection with syllogistic reasoning but is a set of technicalities and doctrines intended to, have some bearing upon the wider question how actual arguments can be guarded against error. True to this, its original and main purpose, logic surveys the nature of language and the kinds of terms that are in use. Every text-book in logic opens with a description of the several kinds of terms; it then tries to determine what terms have and what have not extension or intension and why, and how extension is related to intension. Following this we have the doctrine of definition. We cannot think clearly without knowing, what we are thinking about; both to hold our meaning steadily in mind and to communicate it to others we must define clearly the objects of our thought. This ideal of logic seems worthy, but in practice it ends in a thorough failure. We shall now examine it a little more closely.

Every general name like 'man,' denotes certain objects and implies certain attributes. The objects denoted form the denotation or extension of the name, and the qualities implied form its connotation or intension. If we take a number of common names arranged in a serial classification, say, 'man', 'man of Salem', 'educated man of Salem', we find that the intension of the terms grows greater as the extension diminishes. There are fewer educated Salemites than Salemites, fewer Salemites than men, yet their qualities seem to increase. A Salemite means a person belonging to Salem; educated Salemite implies an additional quality. Thus each term is less extensive than the one which immediately precedes it but conveys greater meaning. On this observation is based a law that as connota-

tion increases denotation decreases and *vice versa*.

It should follow from this law that when a class becomes so very limited as to denote only one object, its intension, *i.e.*, the qualities implied by it should be infinite; while, when it is so wide as to denote every object in existence it should be devoid of any intension. Thus a term like 'being' or 'matter' should mean nothing and every proper name should have infinite significance. But curiously enough formal logic disclaims this consequence of its doctrine and maintains that proper names have no connotation.

The problem of definition is twofold, *viz.*, to determine the connotation of a term, *i.e.*, to find out the essence of an object and to express it in proper language. To be able to define a name we must determine its meaning; hence this forms the more important function of definition. But formal logic postulates a knowledge of the essence of an object. In no science do we ever start with knowing what is important to the being of our subject. Our initial definitions cannot but be provisional and as our knowledge grows they must be modified. Definitions, therefore, are provisional and progressive. It is in flat contradiction with the method of science to assume a limit to its progress.

Again, since formal logic assumes that the essence of a thing is completely known, there cannot be more than one definition formally possible. But this cannot be admitted. It will be generally agreed that one definition may be proper for one purpose; and another for another. For the purposes of economics, for example, we may conceive man as a wealth-producing or wealth-consuming animal; but to the biologist this would seem absurd. The poet, the landscape painter and the scientist will each conceive the rainbow according to his own peculiar way of looking at things. In short, a selec-

tion of qualities guided by a dominant purpose is involved in every definition. Relevance to purpose is the primary requisite of a good definition. The failure to recognise this is a serious defect of the formal doctrine.

These are some, and only some of the defects of the traditional logic of deduction. It is easy to multiply instances. If we next turn to the second part of logic known as Induction or the theory of scientific method, we are presented with a set of principles which have to be studied critically for purposes of examinations. Here the true theory of scientific method occupies but an insignificant place.

Then comes the redoubtable chapter on fallacies. A fallacy is defined as a "reasoning which may be known to be bad from an inspection of its form." It is an argument which appears to be valid when in fact it is not so, by reason of some offence against the rules of formal logic. It is thus the counterpart of formally valid reasoning, and stands or falls with it. If, as we have seen, we cannot accept a reasoning as valid by virtue of its form, it follows that we cannot also recognise a reasoning as invalid by the vice of its form. Next if we go through the traditional list of fallacies, we find a number of them described as material fallacies. This looks like an inconsistency. A consistently formal logic must be as blind to material error as to material truth; and what is worse, certain fallacies described by formal logic are not strictly speaking fallacies. For example, the fallacy of many questions is defined as the putting of a question which appears simple—appears to admit of a simple answer, yes or no—when really it is complex and ensnares one whatever one replies. A classical example is "Have you left off beating your father?" where either answer admits the previous beating. Such examples are merely verbal tricks which could amuse only the childish. In modern every-day discussion, a man of ordinary intelligence would refuse to answer such questions,

and no one is bound to answer yes or no. One of the most effective and legitimate methods employed by law for eliciting truth from witnesses is that of cross-examination, which is simply a systematic practice of this fallacy. Hence this is not only no fallacy, but a distinct departure from the ideal of formal logic.

It may be asked how formal logic was suffered to flourish so long without being thrown overboard as a futile study. If we understand the state of Europe during the Middle Ages, how in those days the authority of the church was supreme, religious toleration was unknown and every kind of knowledge was allowed to have an existence only if it could minister to the upholding of theological dogma, it will be easily seen that formal logic was a potent instrument of fortifying the church against the inroads of science. The theologians of those days declared that there was not a problem they could not solve and looked upon every discovery of science as an impertinent encroachment on their province. The curious conduct of prelates and cardinals when Copernicus demonstrated the helio-centric conception of the universe shows how anxious they were to preserve their old doctrines. In solemn congregation assembled they settled that 'the doctrine that the earth is neither the centre of the universe nor immovable, but moves even in a daily rotation is absurd, and both philosophically and theologically false.' An anecdote is said of a learned professor that he disproved the discovery of Copernicus syllogistically as follows:—

Everybody admits that the sun gives light to the earth.

Now if we want to light a house, we take a light about the house, and not the house about the light. So also the sun which is a light to the earth must go round the earth.

Thus the syllogism was of great service in the consistent elaboration of dogma, and all new

knowledge was deliberately suppressed. In the light of these facts, we need at all be surprised that formal logic in spite of its weakness has had such a brilliant career in the past. Now with the advance of science, men have learnt to take a wider outlook upon things and logic has consequently come in for a good deal of criticism. To repeat the old criticisms or to direct fresh attacks upon it would simply be 'a slaying of the slain.' It is high time that we should strip it of its formalism and verbalism and bring it more in accord with actual human knowing and thinking so as to subserve the purpose of education. What is most urgently needed is a logic, a theory of science, which will serve as a potent instrument in tackling the problems which confront the modern citizen in his every-day life. During the last few decades the growth of science and civilisation has created a sort of restlessness in every department of human activity; in commerce, in religion and social life new ideas are constantly replacing the old.

'The old order changeth yielding place to new.' One man is of opinion that the existing social customs are a hindrance to progress and must be supplanted by more rational and up-to-date principles in order that the country may take its place among the nations of the world. On the other hand people are not wanting who look upon everything old as sacred and all interference with what our ancestors have laid down in their supreme wisdom as nothing short of a sacrilege calculated to bring ruin to the country. One teacher propounds what is contradicted by another. "We want sectarian Universities," cries one. "Sectarian Universities will only widen the gulf that separates the different communities," says another. 'Education of women is essential for national progress' declares a third. "It will lead to moral degeneracy," rejoins a fourth. "The prosperity of a country depends upon the technical education of its people," is the cry of one party. "Technical education is a mere trick by which

the captain of industry tries to supply himself with skilled workmen at the expense of the state" is the ready retort of its opponents. Such is the maze of conflicting opinions which every citizen is presented with and out of which he must find a way. He is urgently called upon to give his opinion on the many social and educational questions of the day; and it is necessary that he should eliminate the personal element and form a judgment in the interests of the society at large.

How is such a judgment to be formed? It can only be based on 'a clear knowledge of the facts, an appreciation of their sequence and relative significance.' When the facts are classified and understood, the judgment based upon them must be free from bias. This is the aim and method of modern science. Now a training in the method of science, the acquisition of the scientific habit of mind seems to be an essential instrument of promoting sound citizenship; and this may best be achieved by a combined study of some branch of natural science and the theory of scientific method. Natural science and the logic of scientific method will be a more rational and more useful combination.

But under the wonderful regulations of our University, logic is intended to be studied only by those who know nothing of science; and students of science are not allowed to learn logic—witness the groups logic and history or logic and languages prescribed as courses of studies for the Intermediate Examination in Arts of our University. Unless the curriculum is so modified as to bring the theory of science into closer contact with its practice, the traditional logic with the defects that have been indicated can only produce in Dr. Schiller's words 'a deplorable narrow-mindedness, and incapacity to grasp concrete fact' which is far from the aim of education.

Ladies and Gentlemen, I have encroached too much upon your time and patience, more especially the latter. I have tried to point out how logic as it is now taught is of very little value and suggested how it might be taught more profitably though in a less orthodox fashion. Many of you may not agree with me and may consider I am too much of an iconoclast. I have simply told you with out any reservation what I really feel on the subject, and my object in reading this paper has been to throw out a suggestion rather than compel assent. If I should have succeeded in turning the thoughts of some at least of you upon this question, I shall consider myself amply rewarded.

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THE NEW REGULATIONS AND ADMISSION OF STUDENTS INTO COLLEGES.*

THIS subject has been largely discussed in the papers and the defects of the old regulations have been severely exposed. Representations were made by this Guild and other Teachers' Associations praying for a careful examination of the question and sympathetic reconsideration. But they were unheeded. A joint petition signed by the Headmasters of the Tanjore District was sent to the Syndicate through the Registrar; it met with no better fate too.

The new regulations promised with such ready facility, and so long and so eagerly looked for have hardly kept pace with our expectations. The moderation marks stand there as before, but they have been made an alternative test with the public examination marks. The minimum too has been lowered to the Presidency average, and is demanded in each of the five subjects of the public examination. The principle of the Presidency average is pertinaciously stuck to, which is really the bane of the whole matter.

A boy scores 50 % in a subject, but is declared ineligible for a college course. In another subject he gets only 20 %, but is declared eligible. In the former case, the Presidency average is 51, in the latter it is 20. This is indeed a very anomalous state of things. It is not the boy's real individual merit that is considered, but his comparative proficiency in relation to his fellows. Not sufficient, therefore, if he scores high marks, but a good many of his fellow-candidates must score poor marks, so that the average may be low.

Apply this principle to any particular form or class in a High School, in the matter of making promotions. In a very well taught form or class, going by the fixed minimum, it may be possible

* A paper read at a meeting of the Tanjore District Teachers' Guild held on the 29th April at Mayavaram.

to pass 30 out of a class of 40 boys. But if the class average is taken as the standard, nearly 20 boys will be ploughed in any one subject; and if the same test is extended to 4 or 5 other subjects, it would be a blessed state of things if you could promote just five or six boys. The fact is that if many boys do well in an examination, they will be only damaging their own interests by raising the class average, which is the standard by which they will be tested. So a few boys should do well, and many other boys must do ill—this is the necessary condition for a proper working of the average principle.

In like manner if many schools by healthy rivalry and emulation fare well in the public examination, they will be none the better for all their diligence. If by a concerted action many schools do ill, they will be none the worse for their wilful negligence. In fact, for a few good schools that will fare well in the examination, there should be many bad schools, who will send up very indifferent boys, say just for the charitable purpose of bringing down the Presidency average comfortably low. This is indeed a very undesirable and deplorable condition of things which breeds such an unhealthy spirit and feeling between boy and boy, and school and school.

A fixed absolute minimum on the other hand, is not without its evil. There is the danger of some erratic examiner shooting at an over high standard or valuing the answer papers too strictly and ploughing down 70 or even 80 % of the candidates. The results of this examination system by absolute minima may be very inconstant and widely vary from year to year. But the remedy is far worse. The vagaries of an individual examiner may be easily counteracted; artificial alleviations may be sought: the percentage of passes may be raised. Fleeing from the murderous proclivities of some stray individual examiner we fall a victim to the ruthless system of the Presidency average, for the operations of the averaging principle are inexorable.

XXII

The Presidency average taken as a test will necessarily reject at least 50 or 60 % of the candidates as ineligible. The remaining 50 or 40 % are again to be subjected to the same severe test in four other subjects of examination. How many do you think will manage to squeeze through these four processes of filtration? Blest if 15 % emerge unscathed! Is 15 or even 20 a very fair and decent percentage of passes in an examination? Verily, history repeats itself of the old slaughter of the Matriculation innocents.

This principle of the Presidency average seems to serve as a regulating check on the flow of students from High Schools to Colleges. The graph-line, which would abruptly rise and fall under the conditions of the fixed absolute minima will now run low in a dead level course. Does this subserve a policy? Is this intended to stifle the cry for more Colleges and Universities? Is this the price to be paid for efficiency?

Going into details we find there are several defects and discrepancies. Take, for instance, Vernacular Translation and Composition, which is a compulsory subject of examination for all pupils alike—those who do not bring up Tamil for the C group, as well as those who do. The Tamil specialists are sure to do far better than those who have merely a desultory and superficial knowledge of Tamil. It is manifestly unfair to judge both these classes of pupils by the same standard.

Much more glaring is the injustice in the subject of Elementary Mathematics. The Mathematics specialists, many of them, floor the paper in Elementary Mathematics and thereby push up the Presidency average which can hardly be reached by other classes of candidates who specialise in History, Tamil or other non-scientific and non-mathematical subjects.

Again in the C group subjects, for an examination in which only specialists appear, the Presidency average is bound to be high, say 50 to 60 %. It is palpably unfair in this case

to reject a candidate because he fails to reach the Presidency average though individually he might score a respectable percentage of marks.

I have not forgotten the clause of mercy promised to candidates who fail in any one subject other than English. The fact is I have no faith in the mercy of a body of men who have after repeated prayers and expostulations resolved upon such a grossly illiberal policy as is evidenced by the new regulations.

I would suggest that some absolute minima be fixed on a sliding scale. In English, which is generally considered to be the most important subject, 40% might be the minimum. In the C group subjects the minimum must be lower, say 35%. In other subjects of examination the minimum must be still lower, anything between 25 and 30%. Where on account of the idiosyncracies of any particular examiner the percentage of passes is odiously low, the Presidency average may be taken as the alternative. In short there ought not to be as many as five tests. Sufficient if there are two tests, in English and in any of the C group subjects which are continued in the college course. Excellence in any of these subjects might condone for any deficiency in other subjects. As a matter of fact, the boy who manages barely to reach the Presidency average in all the subjects, is decidedly inferior to one who scores very high marks in one or two subjects but fails in the rest. The former

will never probably rise above the Intermediate class, while the latter very probably will get on fairly smoothly in the whole College course.

There is yet one point which I should touch upon before concluding. The new regulations while exempting compulsory attendance in all B group subjects make the attendance in A group subjects, however, compulsory on the part of the supplementary students, and make it obligatory on them to appear for the examination again, the results of the first examination, however favourable, being ignored. This is decidedly a retrograde step. Attendance and examination in A and C group subjects are insisted upon apparently because they are subjects which they will have to study even in the College course, and it may not be advisable that boys should forget what they have learnt in them. This is a specious argument. If by assiduous study for the space of one year a student succeeds in scoring high marks in a subject there is not much fear or possibility of his forgetting his knowledge, at all events to such an extent that his memory of it might not be soon and easily brushed up. This compulsory re-attendance and re-examination is entirely opposed to the spirit of the S. S. L. C. scheme which afforded free option, and every facility to boys to specialise in the subjects of study in which they are wanting, or for which they have an aptitude.

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STRAY THOUGHTS ON EDUCATION.

"IT is my wish that there may be spread over the land a network of schools and colleges from which shall go forth loyal, and manly and useful citizens able to hold their own in industries and agriculture and all the vocations in life" so said H. M. King George V, our Emperor. The end and aim of all education is knowledge and ability to do useful things in life. How to gain that knowledge and acquire ability? In the school-house which is the sacred temple of learning the priests try to draw forth the dormant powers of the young devotee and give according to Webster that series of instruction and discipline which is intended to enlighten the understanding, correct the temper, and form the manners and habits of youth and fit them for usefulness in their future stations. The statue lies hid in a block of marble which shows none of its inherent beauties till the skill of the polisher fetches out the colours, makes the surface shine, and discovers every ornamental cloud, spot, and vein, that runs through the body of it. What sculpture is to a block of marble, that education is to a human soul. To give children a good education in manners, arts and science is important: to give them a religious education is indispensable; for without the ennobling influence of religion, man, in spite of his intellectual capacity, will but reduce himself to the level of a beast without soul. An immense responsibility rests therefore on parents and guardians.

The home is one of the several important agencies at work in fashioning the child to its destiny and as the future good or bad conduct of the child depends entirely upon its mother, it behoves the country to exert itself as much in the promotion of good mothers as it does in the turning out of useful citizens. The mother has greater opportunities to discourage and discard the low sentiments, the ungenerous affections, to suffer nothing but that which is grand and

elevated to take root in the youthful understanding of her children. She must have the energy of a man combined with the gentleness and delicacy of a woman. Happily, a strong wave has been surging over the land in favour of education and among other institutions that have come into existence for the diffusion of knowledge there have also sprung up a number of schools and colleges for women. The Government of Mysore have taken the lead in the South of India in this matter and the success which has attended it in that direction has added a fresh stimulus to similar enterprises elsewhere. In the circumstances that are prevailing in our country, much care and thought have to be bestowed on ascertaining consistently with the traditions of our hoary past and the spiritual instincts of the people, the lines on which the intellectual and moral standards of our girls can be raised. Here too, as in every thing else, I venture to submit the ideal should be plain-living and high thinking and those ideals that have unfortunately produced the dangerous species of man-woman, viz., the suffragists in the west, should be jealously dropped from the scheme of studies which must aim at the making of our girls, only loving sisters, dutiful wives, and good and delightful mothers. It is possible only then, that the home in India will intelligently co-operate with the school informing the character of the child and in the arduous task of moulding the nation whose characteristics will be a capacity for truth and pure delight, for nobler loves and nobler cares. The intervention of the State must be felt in cases calculated to produce a weak progeny, without affecting the susceptibilities of the people and it must not also be lost sight of that the purity of the race is a potent factor in the upheaval as much of education in particular, as of the nation as a whole.

The influence next in importance is the personality of the teacher in the class-room, not to speak of his fitness for the work of moulding the nation. It is needless for me to dwell at length on the

enumeration of those essential qualifications required of a teacher except by a passing reference to those traits of character which include a deeper and sympathetic insight into human nature, a careful psychological analysis of his ward, sufficient tact and nerve to bridle refractory natures and a degree of hopeful optimism coupled with a fund of pleasant humour. The teacher would but half perform his duties if he does not seek to develop the heart-power of his scholars with the same solicitude with which he would develop their brain power. To make their wards read the world aright and master the great lessons of life,—the progress and destiny of nations, the inner meaning of events, the far-off results of action, the discipline of failure, service and self-sacrifice, faith and prayer, the infinite play of human passion.....these are the subjects in which the teacher must take a great delight to give apt lessons to his students. One can understand therefore the state of mind of one of the wisest of Roman Emperors, Marcus Aurelius when he thanked Heaven for two things, first, that he had excellent teachers himself and secondly that he had been able to procure good teachers for his son. The teacher should therefore incline his genius with delight to his profession as he will leave his impress on the boys committed to his care and it is a piece of self-gratulation to know that the eminences of the scholars have commended the memories of their school-masters to posterity. He must be the living model of what may be called a finished education. Even the Vedas admit him into the family fold and raise him to the exalted position of Godhood and unless the trust thus religiously reposed in him is amply justified it is in a hundred to one that he does not prove a bane to the country and deserve the curse of mankind. His responsibilities therefore like those of the statesmen are very heavy indeed and one false step might lead to even disastrous results. This puts me in mind of a case reported sometime back in

the papers of a certain Eton boy, if I remember right, who was awarded the maximum punishment of dismissal for a trifling breach of discipline and that not also touching the character of the boy: this infliction, though it may have a convincing justification, provoked the famous moving letter from his mother who wrote to say that from psychological and moral grounds the boy's prospects were marred, i.e., from the mere consciousness of his having been marked out to fall a victim to the operation of a cruel law, in spite of the fact that his admission into other colleges of the country was quite possible and his means also enabled him to secure the services of the best of scholars. I shall pass from this incident on leaving it to speak for itself.

It seems to be the will of the Creator that all the best things should be available for the mere thinking of them; and Providence has not left anything for our thinking. The very elements, the vital essentials of His Creation are above any price and are enjoyed even by the lowliest of the low and one is apt to fail in their immensity to appreciate such precious, divine gifts. Surely it is ingratitude which is worse than traitors' arms. Perhaps realising this, and it seems likely enough, that the sages of this *Punya Bhoomi* have ordained that the children of *Aryavarta* should have their initiation into the study of religion before they acquire knowledge of science and art. The hearth compares favourably with the *Sanctum Sanctorum* where should be learnt the a, b, c of religious and moral education taking the form of happy stories, solid in their worth, called out from those veritable stores of morals, the great epics, the Puranas and the *Itihāsas* of our country and illustrating the particular virtue which is the theme in glowing colours so as to impress the imagination. It is difficult to separate morality from religion and one should almost exhaust his powers in the fruitless venture to draw the subtle line of distinction between the two. Thus grounded in the rudiments of religion

and morality, the child knows that all are the children of the same dear God and that service is the goal of humanity. We are told that the ancient ideal of a Hindu student comprehended this, and that he was made to subordinate the interests of the body to the supremacy of the mind. I do not for a moment lose sight of the very wholesome observation that a sound mind exists in a sound body. A learned doctor of medicine once prescribed sixteen grains of cheerfulness and equal quantities of open air, and exercise for his patients; yet, luckily for him, the prescription did not interfere with his lucrative practice. Cleanliness of person, simple and nourishing diet, regulated exercise and temperate habits are the essentials of health. In games and sports one learns to think and act for his side and share the fortunes of his team with as much pleasure or pain as he would do in his individual success or failure. Here it is therefore the idea of the larger self will dawn in his mind and is apt to grow with him and will stand by him in the citizenship which awaits him in life. Endurance in trying conditions, a sufficient coolness of temper, a quick decision and a ready action, a willing and cheerful obedience to law and leader, delicacy enough to respect the feelings of the adversary in defeat are some of the resultant virtues. It is my honest opinion and it may be taken for what it is worth, that this aspect of a boy's education has not in our schools and colleges received the adequate attention that it deserves and more often than not being left to take care of itself defeats its own purposes. There is also an unfortunate tendency noticeable, that in following the western ideals we very often forget the national and a happy blending of the two will doubtless produce much more good. "A Hindu breathes religion, thinks religion, talks religion" is a remark attributed to a great man. Even in the matter of our religious duties and devotional exercises there is enough play of the organs to produce the harmony of perfect health. Apart from their spiritual value, the due performance of *Gayathri*

Suryanamaskaram and the like duties imposed upon the Brahmins, reveals from a physiological standpoint the secret of greater vital capacity and the extension of the lease of life. Even in the case of women, exercises take the form of dances keeping time to the music which in our country is, I believe, advisedly devotional. We are a nation of spiritual and romantic people and anything of material worth must, like the sugared quinine pill, be administered to us in draughts of religious ingredients. Pardon me for the digression when I turn to draw your kind attention to the fact that of all the movements that have succeeded in our land, it is only such as have appealed to the religious instincts of the people that have progressed very well.

Society in India has been constructed with the plaster and cement of religion, a structure peculiar to this country and well might the Rev. C. F. Andrews speak out and bravely too, in London that the education of the children of India on the highest indigenous lines was the greatest task before all true lovers of India in the present generation. With such a sincere friend of the student population and Sir Harcourt Butler too has recently assured us of that, and a true lover of India as is our beloved Viceroy His Excellency Lord Hardinge, renowned, no less for his heart than his head, nay, gifted with more heart than head to make a comparison for its own sake, and pledged as he is, to the cause of education and sanitation, we may look forward to the time in the near future when the germination of those ideals set forth above will be quite possible.

Coming back to the subject, it is the discipline of the body thus gained early, that has a corresponding effect to the discipline of the mind, External influences operate upon the mind through the sensory organs leaving impressions to be either altered or eradicated by experience picked up in life, or by association with persons of recognised worth, thus forming the broad basis of

mental culture. The whole fabric will be torn asunder if it has no proper foundation on character. It is best formed in the impressionable years of the child and truly, is the child father of the man. Nothing is more appealing to juvenile minds than a happy yet judicious recital of the tales of India glowing with masculine and feminine virtues. The story of Druva and that of Savitri for example clearly told, will arouse the sympathy of children who will then understand that the force of will, properly directed, is capable of producing results beyond one's expectation. The slender age of the hero and the chastity and devotion, almost divine, of Savitri at once strike the imagination and start up the imitative faculties of the mind and set them a-working. The best ideals to follow are thus presented to the children in such an attractive form and in obedience to the law of nature, the strong native trait of character which is latent in the child wakes up and chooses its own ideal to be in active sympathy with it and in the absence of any perverse circumstance develops itself.

Lives of great men all remind us,

We can make our lives sublime,

and they too in their turn have had such inspiring ideals presented to them by their preceptors. Character, in the words of Goethe, is fashioned to perfection in the stream of life. A highly esteemed English writer has well said, that 'Character is human nature in its best form. It is moral order embodied in the individual. Men of character are not only the conscience of society, but in every well-governed state, they are its best motive power, for it is moral qualities in the main which rule the world. The strength, the industry, and the civilization of nations—all depend upon individual character and the very foundations of civil security rest upon it. Laws and institutions are but its outgrowth. In the just balance of nature, individuals and nations and races will obtain just so much as they deserve,

and no more. And as effect finds its cause, so surely does quality of character amongst a people produce its befitting results. It is observed and observed rightly, that although genius commands admiration, character most secures respect. The former is more the product of brain power, the latter of heart power, and in the long run it is the heart that rules in life.'

Does not the life of that great patriot of ours, Mr. Gandhi, at the present day reveal those abstract ideals pictured forth above, in concrete reality? It does even more. It spells an amount of self-sacrifice on his part, the basis of which was mutual love and sympathy with others. Can a country that has produced a Druva, a Savitri, in days of yore, a Gandhi and his wife in modern times, to name but a few, afford to ignore or give only a secondary place to the incorporation of those ideals in the system of education which I do not object to being scientific? Who can boldly say that our religion is divorced from science and that our ethics are not based on sound reason? The sages knew centuries ago what the modern scientists had but recently discovered, e.g., the great disinfecting power of the Tulasi and Bilwa leaves and the wondrous effect of copper as the destroyer of germs injurious to the human body. The use of these and similar ones in the daily lives of the people, have from time immemorial been insisted on. A spirit of honest enquiry thus directed into the examination of the scientific nature of our religion will, after a series of investigations in the light of modern science, reveal the profundity of wisdom underlying all the religious, social and other currents of thought and life of the Hindus and compel the admiration and faith of the world. This is surely a glorious heritage. It is evident therefore that religion itself has given rise to a splendid literature of science and philosophy. The science was divided into six *angas* literally limbs; and these limbs or branches comprised what would now be called, secular knowledge. In the olden days secular and

religious knowledge were not divided. They included Grammar, Philology, Astrology, Poetry together with sixty-four sciences and arts, and the method by which study should be carried on, so that any one who has mastered the six *angas* was a man of deep and varied learning. It may be contended that, then was learning the monopoly of a happy few and that the times are now changed as also the environments. Yes, we shall then accommodate ourselves to the altered conditions of modern civilisation, only keeping strong in view the ideal of the ancient system of education. Let the educational edifice at the present day stand strong upon the rock of religion and ethics as observed by the ancients. It would be well if the ground-floor—the elementary education—confine itself only to the study of 3 R's, a spade-work of religious and ethical knowledge and one or two subjects of professional interest adapted to the special needs of the locality. The succeeding *flat* may with advantage take up a carefully graduated system of higher studies much more varied in extent and interest, the foundation being laid deep in religion and ethics. There are many excellent points of similarity noticeable between the Aryan and Greek civilisations and like the *Ashramas* of India there also existed the academies in Greece from which went forth scholars and statesmen, musicians and artists. In the history of nations or civilisations we come upon a polite age before that of the decline, as it is likely the most polite age is too good to be genuine and enduring, and is consequently apt to be more vicious. There is a story in illustration of this. It happened at Athens, during the exhibition of a play staged in honour of the Commonwealth. An old gentleman came too late for a place suitable to his age and quality. He was in great difficulty and confusion and many of the young gentlemen present at the time made signs to him that if he came near them, they would accommodate him. The good man bustled through the crowd accordingly; but when he came to the seats he was invited, the young men

sat close and exposed him, as he stood out of countenance, to the whole audience. The jest went round all the Athenian benches. There were also particular places on those occasions assigned for foreigners. When the good old man skulked towards the boxes appointed for the Lacedemonians, those honest people more virtuous than polite, rose up all to a man and with the greatest respect received him among them. The Athenians being suddenly touched with a sense of the Spartan virtue and their own degeneracy, gave a thunder of applause and the old man cried out: "The Athenians understand what is good, but the Lacedemonians practise it." Our education should therefore, to deserve its native character and dignity, be more virtuous than polite and useful. Time there was when an educational institution here was set up with no loftier motive than what actuates him who opens a stall or a restaurant. To the Government who have taken the trouble of shaking such schools to their very foundations and hammering good sense in the minds of those responsible for such a miserable state of affairs and making liberal grants, all with a view to efficiency, our gratitude is due. From the days when the teacher with his scanty knowledge thought himself fit for the responsibilities of the high office, were he but armed with a rod and ferule, we, at one bound, alight on the times when the dignity or the profession is waxing again and 'specialisation' is the order of the day. Unlike the ancient philosophers who did not mix the idea of gain up with that of knowledge, the modern preceptors have the advantage of the experience of the past (the times having changed) in devising means, such as the system of Provident Funds and Co-operative Societies for teachers, by means of which an excellent teacher can in addition to the respect and esteem that he will command in a way keep the ghost of poverty and care at a distance and devote his attention more fully to his work with a calmness of mind that would otherwise be under modern conditions of life, impossible. Provided with

such wholesome institutions, the profession will not serve as a stepping-stone for lucrative walks of life. An increasingly large number of young and abler men, with their qualities of head and heart are now taking to it and the dignity of both the profession and the incumbent is made reciprocal. Do we not see the force of this observation in men like Mr. P. Seshadri, M.A., Principal of the Salem College? Just a beginning has been made, and mark you, gentlemen, a beginning only, and much yet remains to be done, and in the words of that great religious teacher, the Swami Vivekananda we should 'stop not till the goal is reached.'

Private munificence in other countries flood their educational institutions and large endowments are made as a matter of course, but in India it has yet to come forth in favour of modern education and I am not unmindful of the splendid and handsome endowments of the 20 lakhs of rupees to the Calcutta University recently made by Dr. Rash Behari Ghose and Sir Tarakanath Palit and also of the generous gift to the University of Madras of the Hon'ble late Mr. V. Krishnasamy Aiyar for a University Lectureship in the name of our much revered countryman, Dr. Sir S. Subrahmanya Aiyar of Madras and so far as I can see, it has confined itself to the renovation of temples, the erection of choultries and their upkeep, and the maintenance of a Sanskrit or Veda Pata-sala attached to them. This is good in itself. Here is noticeable in the Sanskrit Pata-sala the nucleus of a system of residential colleges and if they are taken up to be worked on modern lines, now that abuses have crept in such institutions as they have done in all other ancient Hindu institutions, for want of an efficient and proper supervision and control, they will certainly be the better for it and the culture of the east and west will consequently be in splendid harmony. These indications of charity are seen only in shrines situated on the banks of holy rivers. If the aristocracy and the merchant princes of the

country are made to feel a little more in that direction, thanks to the Hindu University movement which has taken the lead, so as to render effective co-operation with the Government, then will the wishes of H. M. King George and the lovers of India who dream of Indian education on ancient and indigenous lines and those best from foreign sources, be realised. Recognised schools of commerce and industries manned by experts and research institutes in all branches of science, the country must be studded with. Some time ago with a certain friend I was discussing the utility of an educational trust for India composed of non-officials of scholarly attainments and approved merit and backed strongly by the support of the wealthy classes of the country, like the Indian National Congress with a definite programme of Indian education, based on religious and ethical foundations. The oldest of such trusts in our country, I believe, is the Bombay Education Society which manage the Byculla schools, started in the words of the Bishop of Bombay 'amid the sounds of the great European war against Napoleon and now they meet again after a hundred years, to celebrate its centenary amid the sounds of another great European war.' With the advent of such an educational trust for India, the dream of a residential system of teaching, of every educational institution equipped with a fine garden and an excellent hostel attached to it supervised by a medical expert, of the Universities turning into teaching bodies, the conferences of eminent teachers and other veteran educationists, of a free and compulsory system of education given to the children of the land as was advocated by that high priest of education, the Hon'ble late Mr. Gopal Krishna Gokhale, C.I.E., who, much to our national regret, has passed away into the realms of the dead..... all these can and will, in course of time be realised and if imagination be permitted to soar a little higher, then like the Parliament of Religions held at Chicago, there may come a time when in

India the various systems of education of the world may come into being, and as a result of which educated men of India in whatever station of life they may be placed, well shine forth in all purity, splendour and culture of their illustrious and hoary past and will build up an India fit to take the highest place in the scale of nations and from its lofty position proclaim to the rest of the world that the goal of humanity is "Om; Santhi; Santhi; Santhi" Peace, Peace, Peace.

K. R. GOPALA Aiyar.

POETRY AS A FACTOR IN MORAL EDUCATION.*

IN all ages there have lived men whose mission was to be the leaders of their fellowmen, who were the luminaries that were to enlighten the darkness of the world, who were messengers sent down from above with God's own tidings to man. These great ones who stand out conspicuous in every age were in fact the great moral force that have shaped and moulded the history of the world, the source and inspiration of aught of good that the general herd of men have been able to accomplish. Carlyle, in his own quaint way, calls them all Heroes. "All things" he says, "that we see standing accomplished in the world are properly the outer material result, the practical realisation and embodiment, of Thoughts that dwell in the Great Men sent into the world." And prominent among these Heroes of Carlyle stands the Hero Poet. And verily the Poet is a great moral force, a bringer of light into this world, revealing to us the sacred mystery of the universe, raising us from this sordid atmosphere on to something purer and sublimer, with power to make some sunshine and some happiness where all is darkness and sorrow—a real heaven-sent leader of man, with the gospel of love and of peace, showing us the path of duty, giving us virtue, freedom, power and hope "a revelation of the Godlike in the Terrestrial and the Common." It is therefore that poetry has been in all ages a source of inspiration to man, giving him nobler ideals and urging him to nobler deeds, teaching him to live a purer and a holier life. In other words, poetry has been one of the greatest factors in the moral education of mankind. What, then, are the reasons why it has exercised such great influence over the world, what are the secrets of the great power wielded by the poet?

* This essay by Mr. F. J. Campos was awarded a prize offered for competition by the Poona Literary and Philosophical Club.

"Two things," says Immanuel Kant, the greatest of German thinkers, "fill me with awe: the starry heavens above, and the sense of moral responsibility in man." This, to me, is the very soul of what we call morality, and it is this awe that, ever haunting the mind of the poet, makes him the great moral force that he is. He that would be a real leader of men must, above all, recognise what Fichte, another German philosopher, calls "the Divine Idea of the World," that idea which pervades all things, from the stars in the heavens to the lilies in the field. To the common human being life is but an empty dream: he lives, says Fichte, among the superficialities and the shows of the world. But the poet moves and has his being in the inner fact of things, the sacred mystery of the universe is ever staring at him. To him the fact of existence is an awful reality, to him

"Life is real, life is earnest,
And the grave is not its goal."

He sees the star-decked heavens above and the grass-green meadows below, feels the freshness of the air and the music of the wind, wanders among the flowery dales and gazes at yon azure hill-tops—and, like the great Goethe, finds in all these, "the living garment of God." His mission is to reveal to us "the unspeakable Divine significance, full of splendour, of wonder and terror, that lies in the being of every man, of every thing—the presence of the God that made every man and every thing." This is the great secret that makes him such a power among us, a power for good, a power to raise us from our low and paltry thoughts and attune us to sublimer and diviner things.

Realising, as he does, the divine idea of the world, he cannot but realise the sense of moral responsibility in man, the great law of duty, the moral law of man. Ever in touch with the awful mystery of the world, he cannot but be in harmony with the decrees of the author of it. His highest wisdom is his submission to the deep

central law of the world, that submission which is the very essence of morality. To the true poet moral virtue is not a matter of profit-and-loss calculation, to him the fear of hell is not a hangman's whip to keep the wretch in order; his sentiment of duty is that embodied in immortal verses by the muse of Tennyson:—

"And because right is right, to follow right,
Were wisdom in the scorn of consequence."

What a noble and sublime conception is here? Could any moral teaching reach a higher strain than this? And all great poems, I mean all truly great poems, have this high souled morality in them, they all have some great moral truths to instil into us. True poetry has been the rich store-house from which earnest minds have in all ages derived their moral sustenance. The glorious truths and lessons which the poet has clothed in his poetry, we have them dwelling in our memories with all their freshness and all their beauty, ever to warn us, to comfort and command. We have our preachers in their thousands preaching sermons in the pulpit and in the street, it may be to serve their purpose: but to have one noble thought ever on the lips of man is better far than to have preached sermons for memories that deny them room. Take that Psalm of Longfellow, that "Psalm of Life" of his: in how many minds does it not dwell in its entire glory, how many souls has it not thrilled and vivified the wide world over,—a veritable psalm indeed, not unworthy to be placed beside the still more sacred Psalm.

But what makes this moral teaching of the poet so peculiarly attractive and fascinating is his sense and revelation of the beautiful. "The beautiful" says Goethe, "is higher than the Good; the Beautiful includes in it the Good." And he who would be a guide to his fellowmen, a real hero upon this earth, must have his dwelling in the realms of beauty. "The highest voice," writes Carlyle, "ever heard upon this earth said withal, 'consider the lilies of the

field, they toil not, neither do they spin: yet Solomon in all his glory was not arrayed like one of these." A glance that into the deepest deep of Beauty. And indeed half the heavenly charm that dwells in the noble ideals set forth in the Bible lies in the ethereal beauty in which they are guised. Equally so has the poet glanced into the very depths of beauty. He is the great Apostle of the love of Beauty and therefore of all Love. To him "a thing of beauty is a joy for ever," to him all forms of beauty yield

".....sensations sweet
Felt in the blood, and felt along the heart
And passing even into my purer mind."

To him the rocks and the mountains, the valleys and the groves and their colours and their forms are "an appetite, a feeling and a love." He is a very worshipper of Nature and in its worship bursts forth into rapturous melodies, melodies which, like the sphere songs of Shelley, make us forget for some blissful moments all things mean and transport us to the very borderland of the infinite. The man who can do this, is he not a great teacher, a great moral force, who, in revealing to us the beauty of all things, gives us a glimpse of the infinite beauty of the Maker of all things, and who, in attuning us to the love of all things attunes us to the love of our Maker and the love of our fellowmen, is he not, I say, the Apostle of all Beauty and the Apostle of all Love? "The uses of a poet?" asks a deep thinker, "We will not say much about his 'uses.' A human soul who has once got into that primal element of song, and sung forth fully somewhat therefrom, has worked in the depths of our existence; feeding through long times the life-roots of all excellent human things whatsoever—in a way that 'utilities' will not succeed well in calculating."

We now come to another great characteristic of the poet, his sincerity. That a teaching may appeal to us, the teacher must, above all, be sincere. That his utterings may sink into our hearts, they must flow out right from the very

depths of his own heart. He cannot touch our feelings, stir our pity or invoke our love unless he too has felt and pitied and loved. He cannot reveal to us the beautiful unless he has himself lingered in the fairyland of beauty, even as the painter that would paint the beauty of a face must first himself pierce into its beauty and sympathise with it—to bestow sympathy on it, he must have sympathy in himself. And the Poet, that is, the poet, is all sincerity. His poetry is the ebullience and the effusion of his heart. He pours out his song because his very heart is rapt up in the passion of melody, because he cannot, even if he would suppress the music that is in him. If he sings the glory of the heavens it is because that glory has been staring hard at him, if he chants the praises of his Maker it is because he has been overpowered by His mercies and by His love, if he pours forth a tale of pity and of sorrow it is because the very soul of him has been wrung by the woes and sufferings of his brother-man, and he holds up the law of duty it is because he feels that the highest wisdom attainable here is to submit to that deep central law. Else his poetry is so much idle chaff—no poetry at all: his teaching cannot reach our hearts. Much of the poetry, so called, of the eighteenth century is fraught with moral truths and moral admonitions, but this highly didactic poetry does not appeal to us half so much as does the less pedantic, because more sincere, poetry of the next century—say, that of Wordsworth or of Tennyson. It is because the former was the age of pretence and show and formality, "the age of poetry that was not poetry—the artificial poetry that drops to dust before the mighty breath of the young Wordsworth, which began to shake the world about 1798." Take for an instance, those lines of Campbell in which he somewhere speaks of the sea:—

"The spirit of the universe in thee
Is visible; though hast in thee the life—
The eternal, graceful, and majestic life
Of nature, and the natural human heart
Is therefore bound to thee with holy love" &c.

Could anything, to use the words of a critic, be tamer and less satisfying?—and yet it seems the broken and muffled echo of a great thought. Compare it, for a moment, with the true feeling, nobly expressed because it thrilled the man who tried to utter it:—

"I have felt,
A presence that disturbs me with the joy
Of elevated thoughts: a sense sublime
Of something far more deeply interfused
Whose dwelling is the light of setting suns,
And the round ocean and the living air,
And the blue sky, and in the mind of man:
A motion and a spirit, that impels
All thinking things, all objects of all thought,
And rolls through all things."

The chief secrets, then, of the great power of the poet's teaching are his sense and revelation of the divine idea of the world, his lofty conception of the law of duty, his gospel of beauty and love and the profound depth of his sincerity. Add to these what we may call his universality. The poet is a great equaliser. His voice reaches the huts of the lowly as well as those of the rich. He belongs not, exclusively, either to this place or to that, to this age or that, but, unlike most other teachers, speaks equally for all place and for all time. The power of Greece and the power of Rome are buried in the dead past, but the power of Homer and the power of Virgil still hold sway and will still hold sway when, "You and I, like streaks of morning cloud, shall have melted into the infinite azure of the past."

It would be highly interesting and instructive to describe here the main teachings of some of the noblest poets that have sung on this earth: how the loftiness and grandeur of Homer, in spite of his crude morality,—the morality of the world's childhood—have exercised such a powerful influence over the great minds of the world and given such a picturesque shape to their thoughts; how Virgil, surrounded though he was with the luxury and immorality of a decaying Rome, portrays to us, "in the stateliest measure ever moulded by the

lips of man," the felicity to be found in a life of simplicity, labour, religion and communion with nature, and why it is that he was so much idolised by the men of the middle ages and has still fascinated and ruled some of the master-minds of modern times; how all the Christian piety and philosophy and all that was noble and good in the middle ages is mirrored and immortalised in the everlasting music of Dante; how the loftiest and the most glorious thoughts and ideals that ever dwelt in the minds of men are to be found in those golden treasures, the works of Shakspeare, Milton and Goethe, and how they have dominated the modern literary world and influenced the thought of modern days. This, however, would be too ambitious a scheme, neither would space permit us to put, even if we could, such a scheme into effect, and we will, therefore, content ourselves with narrow limits. I have about me a great poet, a great moralist in verse; he is my constant companion, a source of inspiration and a guide to me; it is the poet-philosopher Wordsworth; and by way of illustrating the foregoing, we shall devote the remaining pages to inquiring what he teaches us.

Perhaps no man was ever more impressed than was Wordsworth with what the Transcendental Philosopher called "the Divine Idea of the World," the great idea that Nature is the revelation of the Divine, that it is the image and vesture of God for our imperfect eyes. And surely none has revealed to us this great idea in works of such matchless melody and beauty of language. Through almost every poem of his there runs at the bottom this great central idea, showing with what intensity he found the light of God scintillating everywhere through nature and through humanity. Take, for example, the above quoted lines in which he speaks of a presence

"Whose dwelling is the light of setting suns,
And the round ocean and the living air,
And the blue sky, and in the mind of man:
A motion and a spirit, that impels
All thinking things, all objects of all thought,
And rolls through all things."

What a sublime and elevating thought? Mark the exquisite manner in which thought, word and melody are wedded together. We may well ask if anything can be more soul-stirring than this. Take again the following lines composed on hearing that the death of Fox was hourly expected:—

A power is passing from the earth
To breathless Nature's dark abyss;
And when the mighty pass away,
What is it more than this—
That man, who is from God sent forth,
Doth yet again to God return?—
Such ebb and flow must ever be;
Then wherefore should we mourn?"

Such noble musings as these stirred the depths of the soul of this man. Again listen to the exquisite sonnet addressed to a child:—

Dear child? dear girl? that walkest with me here,
If thou appearest untouched by solemn thought,
Thy nature therefore is not less divine:
Thou liest 'in Abraham's bosom' all the year;
And worship'st at the temple's inner shrine,
God being with thee when we know it not."

He felt with such great force the presence of God in nature and humanity that he would often feel that the things around him, the rocks, the waters and the trees, actually lived, and that the human beings moving among them were but the guardian spirits of the place. Even in his boyhood, it is said, would this feeling so often take possession of him that he would at times find himself gripping a tree to make sure that it really lived and that he himself was a substantial creature and not the phantom of his imagination. Once, when seeing the movements of the sea, he exclaims with a sort of mysticism:—

"Listen! the mighty Being is awake,
And doth with his eternal motion make,
A sound like thunder everlastingly."

Speaking of primrose tufts and periwinkle wreaths, he says:—

"And 'tis my faith that every flower
Enjoys the air that it breathes,"

Describing what his feelings were when once, on a nutting expedition, he dragged to earth a hazel bough with "merciless ravage" and found that

it "patiently gave up its quite being," he writes:—

"I felt a sense of pain when I beheld
The silent trees and the intruding sky.
Then, dearest maiden, move along these shades
In gentleness of heart; with gentle hand
Touch—for there is a spirit in the woods."

The man who could give utterance to thoughts such as these—can we for a moment doubt the genuine sincerity of him, and can his teaching fail to touch our hearts? But more is yet to come. Wordsworth reaches the highest strain of poetry when he answers the great questions of "whence" and "whither?" concerning our lives in verse which is perhaps among the finest and sublimest in the entire literature of the world:—

"Our birth is but a sleep and a forgetting:
The soul that rises with us, our life's star,
Hath had elsewhere its setting,
And cometh from afar;
Not in entire forgetfulness,
And not in utter nakedness,
But training clouds of glory do we come,
From God who is our home."

It is needless to state that the man, who was imbued with ideas such as these, loved nature and its beauty and humanity with an intensity of fervour which perhaps few men in this world have equalled. He calls himself a "worshipper of Nature." "The sounding cataract" says he,

"Haunted me like a passion: the tall rock,
The mountain, and the deep and gloomy wood,
Their colours and their forms, were then to me
An appetite: a feeling and a love."

Even the most trivial sights and sounds, which we poor mortals pass so thoughtlessly by, had power to move his soul:—

"The birds around me hopped and played;
Their thoughts I cannot measure:—
But the least motion which they made,
It seemed a thrill of pleasure."

What then is the gospel which this great thinker, who had such reverence and love for Nature, has to preach to us? It is not far to seek; his great gospel is that the best education for mankind is to be found in converse with Nature. "This is a deeply important question, for, if Wordsworth is right, most of what is now

called education is wrong." "I am the lover of the meadows and the woods," says he, "because I recognise

"In Nature and the language of the sense,
The anchor of my purest thoughts, the nurse,
The guide, the guardian of my heart, and soul,
Of all my moral being."

Requesting his sister to come and see with him "the blessing in the air" on the "first mild day of March," he says in lines of unmatched beauty and music:—

"It is the hour of feeling.
One moment now may give us more
Than fifty years of reason:
Our minds shall drink at every pore
The spirit of the season.
And from the blessed power that rolls
About, below, above,
Will frame the measure of our souls:
They shall be tuned to love."

In one of his loveliest and tenderest poems he teaches us how nature is the best education for a girl, how it is to her "both law and impulse" and "overseeing power to kindle or restrain," how she will derive from it the sportiveness of a fawn as well as "the silence and the calm of mute insensate things," how even the motions of the storm shall lend her grace to mould her form "by silent sympathy" and how

"Beauty born of murmuring sound
Shall pass into her face."

Similarly he says to his sister in "Tintern Abbey":—

"..... Thy mind
Shall be a mansion for all lovely forms,
Thy memory be as a dwelling place
For all sweet sounds and harmonies."

And to a girl who had been reproached for taking long walks in the country he says

"Dear child of nature, let them rail,
.....
Thou, while thy babes around thee cling,
Shalt show us how divine a thing
A woman may be made.
Thy thoughts and feelings shall not die,
Nor leave thee, when grey hairs are nigh,
A melancholy slave;
But an old age serene and bright,
And lovely as a Lapland night,
Shall lead thee to thy grave."

As regards what Kant called "the sense of moral responsibility in man," the great law of human duty, Wordsworth lays before us the highest conceivable ideal. His noble "Ode to Duty" is a lesson in point. He yearns for the blessed era when men shall love only that what they ought to love and when their happiness shall be the sure guide to righteousness:—

"Serene will be our days and bright,
And happy will our nature be,
When love is an unerring light
And joy its own security.
And blessed are they who in the main
This faith, even now, do entertain:
Live in the spirit of this creed."

He believed with all great men that the highest wisdom lies in the discharge of our duty and that the whole world lived and kept its even tenor in obedience to the law of duty. Here is his address to duty:—

"Stern lawgiver yet thou dost wear
The Godhead's most benignant grace;
Nor know we any thing so fair
As is the smile upon thy face;
Flowers laugh before thee on their beds;
And fragrance in thy footing treads;
Thou dost preserve the stars from wrong;
And the most ancient heavens, through thee,
are fresh and strong."

And to those who doubt and despair in the face of failure and disappointment, to those who, having done their highest duties, yet think, from their apparent defeat, they have worked in vain, here is his stirring encouragement. They are words from one of the noblest English sonnets addressed to the unfortunate Toussaint L'Ouverture, the Negro patriot of Hayti, who had been treacherously betrayed by the French and imprisoned. All nature, he says, is on the side of courage and unselfishness and freedom:—

"Though fallen thyself, never to raise again,
Live and take comfort. Thou hast left behind
Powers that will work for thee: air, earth, and skies
There is not a breathing of the common wind
That will forget thee; thou hast great allies;
Thy friends are exultations, agonies,
And love, and man's unconquerable mind."

At this point it would not be out of place to inquire what notions Wordsworth entertained concerning personal and national liberty which was so much boasted of in his days. As a young man, when the French Revolution broke out he was so enthusiastic over it, that it is said, he actually thought of taking up arms. He himself describes his feelings at that time:—

"Bliss was it in that dawn to be alive,
But to be young was very heaven."

But bitter disappointment was in store for him. He was so much disgusted with the trend of events in France that much of his adult life was devoted in inveighing against that country. He gradually came to learn that a people cannot be made really free by mere external changes: "freedom is not a gift but an achievement, it is not to be given by all the mingled powers of earth and heaven:—"

"..... One decree
Spake laws to them, and said that by the soul
Only the nations shall be great and free."

Of true liberty, however, he was always the best champion, and much of his best poetry was devoted to the consecration of real liberty. Some of the finest sonnets in the language were written in praise of the struggling Swiss and Tyrolese and Spaniards.

In this connection we might also mention his unbounded patriotism and love for his country. He was the singer of the wars against Napoleon, and many of his glorious sonnets were written to rouse Englishmen in the defence of their country and in the defence of the liberties of Europe. He had a deep faith in the noble cause for which England was fighting. "England," he says, "though thy trespasses in Greece, Egypt, India and Africa are a heavy charge, yet

"Far, far more abject is thine enemy;
Therefore the wise pray for thee, though the freight
Of thy offences be a heavy weight:
Yet earth's best hopes rest all with thee,"

And here are his grounds for his faith in the final triumph of his country's cause:—

"Almighty God!
Thine arm from peril guards the coasts
Of them who in Thy law delight:
Thy presence turns the scale of doubtful fight.
Tremendous God of battles, Lord of Hosts."

How applicable are these lines in these dark days of war, when England is engaged in a death-struggle with her enemies:—

"Another year another deadly blow
Another mighty empire overthrown
And we are left, or shall be left, alone;
The last that dares to struggle with the foe.
'Tis well from this day forward we shall know
That in ourselves our safety must be sought:
That by our own right hands it must be wrought,
That we must stand unpropp'd or be laid low."

Of Wordsworth indeed we may say, with perfect truth, what he then said of Milton:—

"Wordsworth! thou shouldst be living at this hour:
England hath need of thee."

Lastly, we must not forget how deeply he impresses us with the love of home and all that is associated with it. Throughout his poetry are reflected his deep love of his home, the happiness that he derived from a life of rustic simplicity and the great pleasure that he found in the company of the sturdy dalesmen of the lakes among whose lives his own lot was cast. His simple, yet tender little poems, such as *Lucy Gray*, *The Pet Lamb*, *We are Seven* and others, are charming in this respect and universally known. Another trait in his character was his deep belief in the influence of woman, and he portrays to us how much of his happiness he owed to his adoring sister and his sweet natured wife. In these days of suffragettism "et hoc genus omne" it would be instructive to read his high ideal of womanhood:—

"A being breathing thoughtful breath,
A traveller betwixt life and death;
The reason firm, the temperate will,
Endurance, foresight, strength and skill,
A perfect woman, nobly planned,
To warn, to comfort, and command;
And yet a spirit still, and bright,
With something of an angelic light."

These are some of the great moral truths and lessons which Wordsworth lays before us. In language of matchless beauty and melody, he teaches us to love the things that surround us, to feel the depth of the pathos in the lives of the lowly, to form an Eden from "the simple produce of the common day." To use his own words, his mission was "to console the afflicted; to add sunshine to daylight; by making the happy happier; to teach the young and the gracious of every age to see, to think, to feel, and therefore to become more actively and sincerely virtuous." And the charm about him is that he culls his lessons from humbler and less striking themes than any other poet of equal rank: to him even "the meanest flower that blows can give thoughts

that do often lie too deep for tears." "It is because," says an appreciative critic, "he has invested our ordinary every day principles of conduct, which are so apt to become threadbare, with such imperishable robes of finest texture and richest design that Wordsworth holds such a high place among the great moralists in verse." So much from Wordsworth. But Wordsworth is only one among the long galaxy of poets that have sung through so many generations of man. We can thus conceive how great a factor poetry has been in the moral education of mankind, the moral well-being and evolution of the race, how much it has aided in the march towards that

"One far-off divine event

To which the whole creation moves."

Will be ready shortly.

INTERMEDIATE EXAMINATION, 1918.

BYRON:
CHILDE HAROLD

Canto IV

Edited with Introduction and Notes

BY

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COMMERCIAL EDUCATION.*

WHEN first I was asked to write a paper on this subject, I hesitated to take up the responsibility thrust upon me. The magnitude of the task and the assemblage of wise heads for the Conference made me shudder at the idea. But then I was strengthened, and thought to myself I would be failing in my duty to the country if I do not give expression to my ideas, though humble and crude, when the moment is opportune for a consideration of the question. The objects of this paper are roughly to view "Commercial Education" in its various aspects, to sufficiently define its meaning to consider its scope and aim, to draw clearly the border line between industrial and commercial education, if any, to realise the advantages of such an education on the human society as a whole, to indicate the attention paid to it in the past and the present and the line of action to be pursued in the future, to urge the necessity of establishing colleges of an advanced type at least in the Presidency towns and of secondary and of elementary schools in the various centres, to plead for the granting of scholarships, to enable deserving pupils to travel abroad and to pick up knowledge of an all-round type and consequently, to return as useful citizens to the community, and to show the world how practical they are having some definite aim and purpose. I only crave the indulgence of the audience for travelling over such a wide range, and to overlook my faults with a kindly eye as errors like straws upon the surface flow. I am already proud to have been honoured by an invitation and it will be a further source of pleasure and gratification to me to know that any attempt has not been in vain and that I can at least count upon a partial success.

The subject is vast and elaborate and has to be worked upon meagre information and materials to some extent as there has been no great achievement in this line hitherto though, of course, the progress should only be gradual and slow. The case is different as regards industrial education about which various inquiries are made and many conferences held to further its cause. Though much remains to be done as regards industrial education, still, comparatively speaking, it has taken more rapid strides than commercial education. The two currents should flow side by side and help each other; an agent or a manager is as much a necessity as a manufacturer or an

inventor and both should form a link in the world's commerce and industry. It may be permissible, I think, if in the course of our examination of the conditions prevailing abroad we consider the growth of Germany's commercial educational system and how and why she has stood as a rival hitherto to the great commercial nations of the world. As 'captive Greece led captive her proud conqueror,' so the institutions of Germany will leave an indelible impression in the minds of all nations as something to be imitated and copied. Of course, it is the desire of all to crush German militarism but not German culture. Already the press has voiced forth that the German people should be allowed to remain when the day of reckoning comes and only the militarist party should be crushed never to lift up its head again and once more involve the powers in a like world conflict and thus be a menace to the civilisation of the world. Attempts have been made in England to capture German trade and to shut her out from the world's market. The undertaking is sure to succeed and such a step seems commendable. What is done in England will probably be done in India and efforts are being made to start and revive Indian industries so that India also may have her share. "If the movement 'to capture German trade' is to be effective, there will be a larger demand for the better prepared commercial workers." In this connection we have only to see what a German paper says and her fear is apparent.

"England is conducting against us a commercial war—a war of so insolent a nature that it is without parallel in history. England is fighting for trade. The underlying thoughts behind the words of honour of the English statesmen prove that England only took part in the war for the sake of ruining the competitor she fears. Our peaceful work by means of which, in a comparatively few years we got together, in spite of England, a world-wide trade and industry; this is, in English eyes, a crime. England would have all the business for herself. For this, and for this alone, she declared war." Further in the course of this paper it may be necessary to talk of national systems of education in which full allowance should be made for the claims of industry and commerce. In this connection Germany seems to present the best organised of educational systems and so, it seems, there will be no need for further apology to introduce her here though her recent acts of barbarity and vandalism on the innocent people repel from our thoughts any kindly feelings towards her. It is a matter for congratulation that this Conference meets at a

* A paper by Mr. B. S. Ramaswami Ayyar, submitted to the Indian Industrial Conference, held at Madras in December 1914.

time when these problems about India's commerce and industry and ultimately, of the most suitable training, that should be given in the higher branches of knowledge can be discussed; and India bound with England is sure to reap her reward by advancing commercial education.

We are naturally led to inquire what it is that has brought this subject, of recent years, to the front in all countries, though to a less degree, in India. It has always been a patent fact that no best scheme of education can be devised so as to suit all people for all time, but that education should be suited to the needs of life. Authorities in the British Empire and other western countries have seriously thought amongst themselves as to how best the educational machinery can be fitted to serve modern life and environments. It seemed to have struck them also that it is theoretically sound and practically necessary to introduce a new element termed "commercial" in the system of education. Two reasons, in short, seem to have aroused a keen interest in an education of this kind; the intense severity of competition among the different nations of the world to seize the world's market, to make production compatible with distribution, and distribution, with economy and cheapness, and secondly, the application of science to industry, which seems in time to have extended its influence to the field of commerce thus yielding to a systematic treatment of the subject. While it is claimed that Germany, America, and France have founded a national system of education arising out of various classes and England is still trying an experiment, it can be said, nevertheless, that the signs of the times are not wholly without leaving their marks upon her and that she is gradually rising to meet the present day needs. So while even England has cause to fear that her commercial educational system is not what is all to be desired, India has the same story to tell with even greater emphasis. But we have no cause to be wholly desperate. The question of commercial education has much engaged the minds of right thinking men. So then while the causes which have operated in the west to bring the subject to the forefront have not wholly failed to show their effect here, in India, one more has to be added to the list—the present European War—which has led the nation seriously to consider the question of the revival of Indian industries and which will probably also lead to a sounder and better organised scheme of commercial education.

Having realised its importance it suggests to us to find out the true meaning and definition

of this branch of education. It seems there is no concordant opinion both as to its meaning and to its scope and utility. A vague notion prevails that *commercial education* includes also a course in industrial subjects and *technical education* implies training in industrial pursuits alone. Even no less an authority than Sir Philip Magnus uses *technical education* in this narrow sense. But it seems it is a very comprehensive term including among its several branches both commercial and industrial pursuits. So then in drawing the distinction between these two branches of technical education we shall first dispose of *industrial education*. It refers to the training imparted in connection with the manufacture and production of commodities—either the raising of raw products or the production of manufactured goods. Now coming to the question of commercial education we should understand aright its true meaning, as a clear conception is necessary before any final discussion of the subject is contemplated. Generally it may be said to concern itself chiefly with the idea of distribution, of finding new markets for the manufactured goods. But in reality it means much more, failure to recognise which, will certainly lead to disputes of a varied character. Well then, a definition or explanation should be attempted which will include all phases or features of this branch of education so as to avoid all unnecessary conflict, a true realisation of which will certainly lead to a better understanding of the subject and to an equal attention being paid to this as to other branches of education. What is Commercial Education? is a question which may fairly be asked and answered now. It is a kind of practical education suited to the needs of the present day life, to the preparation of youths to business pursuits of the future, to the equipment of those already in business to face the stern realities and complexities of the modern world, to the production of young men, of sturdy moral character of independent judgment, of strong physique, of accurate observation and of fruitful imagination, to the development of *intuition* in business, to the making up of the intelligent and useful citizens of the country. This, it seems, to me, to present almost all the main aspects of the question. The problem of commercial education is, therefore, to solve not only the question of distribution but also that of production, to consider where to buy cheap and sell dear consistent with the rules of good conscience, equanimity and justice, to grasp firmly the issues in the work of distribution and thus in bringing home to the consumer the products of

industry. Though for purposes of subtle distinction it has been said that *Industrial Education* concerns itself with the question of production and Commercial Education, with that of distribution yet in practice the two are so closely allied and so closely intertwined that each may be called the helpmate and handmaid of the other as far as their total affects on Society as a whole are concerned. It has been very well expressed that a market is a necessary adjunct to a factory. At any rate it has become plain that the question of distribution is none the less important than that of production. There seems to be much of common ground in all kinds of education which will apply equally to all and special names come from special causes or of special elements introduced. It is implied, therefore, that sound commercial education will prepare those engaged in commerce and industry to become more intelligent and efficient. We have to take into account here two classes of theorists, one holding that the supreme necessity is for preparing men for production and the other, for distribution. Either of these two theories taken singly will fail. The one will have to depend upon the other for its sustenance. A striking analogy will be that of *horse and harness*. The one will be of no avail without the other. Both commerce and industry have, therefore, to be given a seat in the federal cabinet working hand in hand with each other. These are so inseparably connected with each other that, when we think of the one, the other forces itself upon our attention by association. In the words of Mr. Sadler, "Commercial Education is a noun of multitude. It covers a very great variety of different kinds of training—different in length, different in expense, different in the subjects taught, different in the kinds of teachers competent to teach them, different in the stress laid on the acquirement of particular aptitudes and dexterities, differing, too, according to the position in the business world, and in general society which the youth has to be prepared to occupy. There is no cut and dried formula for *Commercial Education* which fits all cases and all conditions of men and women. The whole subject is a muddle unless the aim is clear. In any course of education worthy of the name a number of different factors must co-operate—home and school, body, mind, and spirit, masters and boys, books and life, words and things, doing and thinking, lessons and games, discipline and interest, theory and practice, imagination and realism, example and precept, old and new, tradition and experiment, reverence for the past, and a bold

readiness to reshape the future. All good education is a combination of antithesis." It has already been said that the training of the mind should form a necessary feature in commercial education. Lord Crewe in the course of an address to the London Chamber of Commerce dispels the view, that was once prevalent, that only literary education can contribute towards the formation and training of the mind. Formerly next to classical studies came the study of mathematics which could alone provide the necessary training. Later on it was found that other subjects also could produce a training equally good and fit one seriously for the active preparation of business life. He is remarked to have said "No body who grasped or thought the theory of the foreign exchanges, for instance, could be regarded as a mere smatterer or as one who, so far as mental gymnastic was concerned, compared ill with another student who had devoted himself to the fashioning of the Greek lambics. On the subject of Indian currency, which he noticed was one of the topics which their senior classes might take up, he could supply from his own department a number of facts which would not be by any means suitable for perusal lying on one's back under an elm tree on a Summer's day." Again it has been remarked elsewhere that commerce is essentially human (1) because it is practical; (2) because it leads to actual results; and as time goes on, to what, after all, is now almost generally conceded to be necessary, the acquisition of money in a greater or less degree; and (3) because, in the long run, it deals not with figures or things, but with men. Commercial Education, then, should aim at the cultivation of manners and courtesy, at the acquisition of a good literary style comprising brevity, lucidity, and directness without in any way sacrificing the main issues. Another important factor which should enter into it is Travel. The advantages of this are the development of a spirit of self-reliance and the power of observation and the utter annihilation of narrow-mindedness. Wide and varied reading and a knowledge of at least one, if not many, foreign language will bring within one's reach the masterpieces of the world's literature. In India a knowledge of the vernaculars such as Hindustani, Tamil and Telugu will be very useful. The introduction of a common script will very much ameliorate the conditions if it is only feasible. But the acceptance of a common standard seems to recede from the thought of all, at least for the present owing to various complications and conditions arising out of the

different causes. This is not the place at any rate to discuss the question of a common script. It is enough we have had a passing glance. The position of Commercial Education is made clear by the fact that larger and larger attention is paid to the vast army of commerce and industry that sooner or later will begin the campaign.

It has been urged in America that both economic changes and enlarged foreign relations put in a vigorous plea for the need of commercial education. Social life has undergone a change. Business relations have become more and more complex. Intelligent and thinking men are required to fill up positions of trust and responsibility. Employees are put under conditions totally different to what obtained a few years ago. They are no longer to be machines doing only mere routine work. They are no longer to ignore the physical and social environments and the economic surroundings in which they are called upon to live. Increased production and manufacture should naturally find new markets for the sale of commodities. Further, consequent on the political changes which the United States has undergone an efficient system of Commercial Education is sought for which will satisfy the modern requirements. Her achievement of political freedom in the 18th century and her mastery of a continent in the 19th culminating in her recognition as a world-power in the 20th brought her face to face with new responsibilities and dangers attendant thereon, and impressed her with the necessity of a radical change in her institutions, social, political, industrial and last, but not the least, commercial. Added to this, the reports of foreign representatives and consular agents as regards the opening of new markets to the American people and the economic activity of trade as regards distribution and exchange give a powerful stimulus to the establishment of institutions to turn out men worthy of the name to brave all risks and failures in the field of commerce. So then two important forces seem to have influenced the course of affairs in America which we here should not fail to notice.

Turning now to England we find that the charge has often been laid at her doors that commercial education is greatly neglected in spite of the vast amount of her import and export trade, the home trade and the oversea carrying or shipping trade. But still it should be remembered she is trying to make headway in the teeth of all difficulties. How bitterly then should we complain of the total neglect of it in this country though there are sparkling signs of

attention being paid of late. The application of science to industry, to the means of locomotion and communication has revolutionised a good deal the system of commerce. The competition is keen. The value of the raw products has gone down. The advantages due to natural resources are not a very great factor to be taken into account, as the question of distance is solved by improved means of communication, such as, steamers, railways, telegraphs, cables—wireless also included, and perhaps aeroplanes in the near future for commercial purposes. The profit also is not very promising and easily obtainable. All these conditions foretell the necessity of a superior kind of training which will meet the exigencies of the case and imply a warning of the dangers and difficulties to be faced. The merchant, then, has not to sit with his folded hands and confine his activity to a limited area. He has to extend his vision, so that literally speaking, he has to survey mankind from China to Peru. It behoves then, that his knowledge should be proportionate to the extension of his markets. Times have changed now and the control of industry has mostly passed into the commercial department of a business firm. There has to be, therefore, a corresponding increase in the number of hands employed in the management of business section in proportion to the decrease brought about in the industrial one. So then business acumen plays no less a part than skill and inventions in the field of industry. What will be the use of the inventions of Crompton, Hargreaves, Watt, Kelvin, and others, if in their application to industrial processes, they are not able to command a wide and extended market. The industrial department may work well owing to the skill and ingenuity of its labourers and the enthusiasm and intuition of the proprietors. But the products have to be sold at the best advantage in order to yield an appreciable profit. There it is where a knowledge in business methods seems necessary and the man with a sound commercial training will have the chance. Clerks with a smattering of knowledge and with an ineptitude to fill up little more than ordinary positions cannot and will not offer a solution. Instances are not wanting to show the failure of workmen who cannot keep proper books of account and commence business on their own account. It requires a certain amount of pluck and a definite course of training before one can undertake such a responsibility. It becomes plain, therefore, that as much training is required for commercial pursuits as for the legal and other professions, industrial pursuit

being included. Many are the branches of study followed here in India to the neglect of commerce. Law, medicine and engineering are, perhaps, chiefly in favour with many in this land and the result is, the business profession becomes overcrowded with those who have only an elementary education, and who in course of time hope to rise up to positions of trust and responsibility within their reach without any serious preparation being made for the same. If India is to rise in the scale of nations, it should be chiefly by commercial enterprise and if that is accepted, it needs men of high repute and moral character; and these again can only be produced by a proper system of training given beforehand. What facilities exist for the same and what improvements should be effected will be discussed later on towards the end. The need for a good training is what is urged here. The one great factor which a business man has to take into account is the man he has to deal with, men of all classes and varieties in all places. A preliminary training of some kind, commercial education of some sort or other, to suit the varying needs is, therefore, required. The greater the varieties of men, the more varied and intense should his education also be.

From what has been said it seems clear that the need for Commercial Education should be felt more and more in India. Either one or all the causes mentioned may be present in our country which impel her to pay heed to commercial education. In this connection it may be worth while to quote from 'Capital' an article on the Government and the Commercial Community. It runs as follows:—"The intimate and sympathetic relations into which Government and Commercial Community have been thrown by the war is not the least gratifying of the unlooked-for results of the conflict in Europe." We hope it will also be a permanent result. The old attitude was one of mutual suspicion. This was the case in England also. Thus *The Times*, August 24th 'If the British Government ever had any doubt as to the reception likely to be accorded to official intervention on behalf of British trade, the events of last week must surely have dispelled it for ever. On all hands it is agreed that it must never revert to its former attitude of indifference. The war has revealed the need for national organisation of our commercial resources and with the experience now being gained, it should be easily possible to create a permanent, practical and authoritative department to act as a clearing house of information for British trade. Never before has the

State shown itself so sympathetic; never before has the commercial community eyed with less suspicion the efforts of the Government on its behalf. Whatever else happens there should be no further difficulty experienced in obtaining from the Treasury whatever sums are necessary for the development of commercial intelligence branch of the Board of Trade. One of the most satisfactory features of the Government activity has been the willingness shown to consult traders and to co-operate with them. This is also a remark applicable to India. One thing shown is the need for improved organisation. The desire of Government to do its best to assist trade has been circumscribed and delayed in coming into operation by reason of its lack of touch with the great centres of commerce. This is not the time or the place to indicate the lines of improvement but amongst the lessons to be derived from the situation created by the war we think the need for a wide extension of the machinery and activities of the Department of Commerce and Industry is bound to occupy a prominent place. Something has been done, especially in the way of issuing useful statistics, though even here on nothing like the same scale as at home, but apart from statistics, traders need much other assistance, notably assistance in getting into touch with manufacturers capable of supplying new lines of goods, for instance, those supplied heretofore by Austria and Germany. The situation thus created and the opportunity now afforded will bring home to the minds of the people the necessity for a sound system of commercial training which should equal to the task of controlling industry, of finding new markets and of competing with other foreign rivals. The war, has, therefore, come as a great corrective and incentive and by presenting new economic problems of interest and complicity urges a thorough reorganisation of the commercial educational system, by the improvement of existing institutions and the establishment of many new ones to meet the exacting demands and to produce men of high calibre and worth who will walk straight against the storm and shell of business strife waging all round. More than this is not necessary to add to point out the extreme urgency of a course of sound training in commercial pursuits. But perhaps a more mention of the failure of the People's Bank in the Punjab, the Credit Bank of India and the Indian Specie Bank will not be out of place in showing the general lack and absence of business management which it seems, was the opinion voiced forth in the press. If so

I shall not venture my remarks with certainty—it gives one more point in our favour for the need of such a training. And probably realising such a need the Industrial Conference urges the Government of India from year to year to establish a sufficient number of Technical and Commercial Schools, though, for a very serious preparation of business life and responsibility, only an institution of a far higher standard will be useful.

It follows as a matter of sequence to consider two questions when the need is felt for Commercial Education. Is it really possible to give training in business in schools? Can commercial schools create commercial genius? And secondly of what practical value is it? Will it repay the time spent in such schools? Can anything worthy of note be achieved in relation to mankind? There are some who hold that it is impossible to give such a training, to reduce business to as exact a system of knowledge as any other branch of science. They base their arguments probably on the fact that school training can never be a substitute for business experience. They continue that, when any one comes in touch with the realities of business life one will naturally pick up a wide and varied experience which cannot be done in the four walls of a class room. Again there are others who place their sole faith in commercial education which they think will shower all its blessings on mankind. These are extremes between which we have to strike the mean. We can only answer the former class by saying that it is never intended to create commercial genius, to provide natural aptitude, will-power and tact which are essential to success in business. All that is intended is to indicate that commercial schools can only foster commercial genius, that the training can only promote, stimulate and develop the natural qualities. It is because these qualities are not actually and cannot be created, these theorists cannot consider the certificates of merit given by University or the Government or the Examination Boards as mere "scraps of paper." This has gradually changed, and employers are going in for candidates with a good record. So then the theory of those, who disbelieve in the previous training for a commercial career and in its practical value without loss of efficacy, found an echo in the cult of an English Professor who, after completing a difficult demonstration in Mathematics, said that the beauty of the proof lay in the fact that it could be of no practical use. For any one to speak of the futility of such a training will be to

lead others to think that industry and commerce are only imitative arts and thus committing oneself to a serious error. Again those, who think seriously that commercial education is the be-all and end-all of existence, would seem to ignore the natural aptitudes and tastes and thus err on the other side. At any rate, it seems reasonable to go midway and establish the possibility of a training which should be not merely literary, not merely technical, but a proper combination of both. A knowledge of men has already been referred to as the *sine qua non* of a large measure of success in business. It requires a calm thinking and a clear view of things which may possibly come as the result of previous instruction received in technical schools. As regards the other question, it has to be remarked that trade conduces to the social well-being of mankind and enters as a factor of civilisation by dispelling the darkness of ignorance once prevalent in the different lands. Commercial education then can be the direct cause of such social and economic organisation. It creates a spirit of sympathy amongst those in the various classes of business. It sets up also a new code of morals and a new sense of duty. It brings within the range of practical politics a feeling of disinterestedness and unflinching devotion to business for its own sake and a broader view of humanity. A true business man remains a student ever through his life and does not cease to be one as soon as he leaves school or college. When he enters upon his work whole-heartedly, he finds it impossible to do away with business ideas after his return from office. He quite unconsciously begins to think of some new problems. The most trifling incident of everyday life and the most casual thing he may witness generate in him new ideas. The future man of business requires some training before he enters upon his career and a sound general education should precede a professional and specialised study, which may be postponed to a later age, when the mind is fit to receive it. We may have to revert to this statement again in the course of this paper. In order at once, to realise the possibility and value of commercial education we may quote Mr. James who in his 'Education of Business Men in Europe' says: "Instruction must always be educative and just as one inculcates patriotism in a soldier humanity in a physician, self-denial in the missionary, the cultivation of science in the scholar, devotion and culture in the teacher, love of beauty in the artist, in exactly the same way the aptitude for commercial affairs, a desire for work, the love of

order, and economy, the spirit of enterprise, clearness of judgment and probity—qualities which make a good business man can be taught in schools of commerce."

To appraise education at its full value it is necessary to speak of national systems of education which certain countries had the fortune to establish. The 19th century witnessed the foundation of such systems which should be responsible for the prosperity or adversity of a nation. The necessity for a system of education suitable to all classes of people without distinction of caste or creed, whether high or low, rich or poor, came to be realised and it was thought that a school should contribute to the triad of true education—intellectual, moral and physical development of a man who has to face all the severity and intensity of a modern competition in business. It was the recognition of this fact that led to the introduction of a national system, a system which would suit the varied needs of life and subserve the national purpose—the national end and aim. The scientific discoveries of the 18th and 19th centuries had very much to account for the origin and growth of this system which showed the possibility of the training of human intelligence and body, monopolised and held unchallenged for long by classical studies in the past. So then, when the industrial revolution set in, it had to provide general education for those workers who would be thrown out of employment or were forced to abandon their state of self-dependence, and a special education for those who would be called upon to control the new forces applied to industry such as the heads or managers of industrial concerns. The achievement is possible only when the Government take up the control of education. It is to Germany, France and America that we have to look up for national systems of education though England may be said to be the birth-place of modern industry.

Before examining the scope and aim of commercial education in India, it may not be out of place, perhaps, if we speak at some length about such systems in other countries and consider the foundations laid therein. The chief countries that should engage our attention, as regards the particular type mentioned, will be Germany, France and America though one or two other countries should not be omitted in the course of our investigation. At any rate we cannot afford to omit England, for the interests of India are now identified more and more with those of England. It is with her help we should march on though self-help is also necessary.

Germany occupies the first place as her educational system is the best that is possible. We can trace briefly from the early times how her system was evolved and how it was developed. It was the Prussian system of education that was taken as the model for the other states and it is necessary to see why she was accepted as the leader. The peace of Westphalia in 1648 brought about the disruption of the old German Empire and a number of independent States were formed. Any attempt at Prussia becoming the leader was always viewed with suspicion, by Austria, France and the various independent States. At the beginning of the 19th century it happened that France under Napoleon subdued Prussia, Austria and the independent States. There was no union amongst them even against the common enemy, and Prussia, stirred up by the insults poured upon her by the French, joined the enemies of Napoleon. It was then that the need for a truly national system of education was felt. The feud between America and Prussia was revived when after the overthrow of Napoleon the suggestion was thrown in 1848 by the first National Parliament accepting Prussia as the leader of the German State. But the scheme was opposed by Austria and Russia. Finally it was, after the overthrow of Austria and the independent German States in 1866 and of France in 1870 that the path for German unity was laid. It was recognised by Prussia that true hearts and clear heads should be the chief factors in national regeneration and it was accepted without murmur by the other German States. As early as 1808—1818 it was thought that the State should control the education of the people and that it should engender in their minds a spirit of self-reliance and activity. Method in education was the chief thing arrived at in the German educational system and it was to Pestalozzi, a Zurich doctor that people turned for such a method. He may be said to have founded technical education preceded by a sound system of intellectual training. Belief in quality rather than quantity has always been the keynote of education in Germany. Taking Pestalozzi's work as the basis the Government gradually introduced changes with the help of educational experts. The Prussian *Realschulen* are spoken of as the best kind of schools that offer instruction to those that are to engage in industry and commerce, and that offer a general scientific preparation for those vocations for which the University studies were not quite necessary. These schools correspond to the modern secondary schools in England. Compulsory elementary

education is provided up to the age of 14 for all children destined for the lower occupation of life. Then provision is made both for those who can continue at school for an indefinite period and those who have to take up work at the age of 16 or 17. One noteworthy feature in German Secondary education is that a child, who has left the elementary school, is not forced to go through a course of special training before his general natural development is completed. This has been strictly observed in the *Realschulen*. All the nations are very much favourably impressed with the industrial and commercial benefits derived by Germany from her system of secondary schools. She was not influenced by any consideration of social prejudices in the introduction of her scheme. She was the first to introduce the best kind of technical education and the progress is more marked in the higher branches of study. Her chemical industries forced her to establish the laboratory at the Imperial Physical Institute at Charlottenburg which stands unique in its equipment from all the rest. She has thus devoted her attention to the development of technical education of the University grade. Besides schools of this type there are what are called continuation schools for those who enter life before the age of 17, and the attendance in some of these schools is made compulsory. Some of these schools also provide commercial education but it is not of a highly specialised kind. For the training of men for business Germany again depends on her *Realschulen*. It has been remarked by Mr. Sadler that the commercial prosperity of Germany is due to her organisation of her secondary education and the development of her higher technical institutes. One thing she always keeps in view and that is, she does not aim at premature specialisation. She trains each unit so that the collective force may aim at national prosperity. She has also made a wise choice of teachers for the secondary schools and pays much attention to the teaching of modern languages. This is all true, but in passing, one is seriously struck with the thought, of what avail is her educational organisation, when she has dragged the whole world into the war, when her commerce and industry seem to show their parting signs. But as has been remarked at the outset, her culture should be retained though the militarism should be crushed. To turn to our point, we should not fail to mention about the advanced types of institutions in business training which are of comparatively recent growth. They are called *Handelschulen* better known by their

popular title of "Commercial Universities." One of the most notable examples of the kind is the one at Leipzig. The object of these institutions is to afford higher commercial education to fit young people to fill up responsible positions in the business world. Instruction is given by lectures and practical teaching. Various subjects such as Commercial Law, Commercial Geography and Political Economy are dealt with.

Turning now to France we find that the dawn of the 19th century witnessed an important change in that it proclaimed loudly the rights of man. Two Philosophers, Voltaire and Rousseau and their followers are chiefly responsible for the change. It may be said that the one was destructive and the other constructive in his views. Voltaire denounced the old order of things and spoke of their overthrow. Rousseau, on the other hand, gave to the French people the language of creation and left behind him his influence in the founding of a new system. "He proclaimed the right of man to independence even in his education. The state of nature being preferable to that of civilisation, the education of man should conform to the laws of nature, and be a preparation in the fullest liberty for the natural state, rather than an adjustment to the surroundings of his future life and the existing social organisations. In France in the 19th century there was always the tug of war between the attainment of social equality and the confirmation of the existing social organisation even in matters of education, the one class supporting the right of every child to receive the fullest education possible and to which he is capable and the other admitting within its fold only a select few. One or other of the ideas prevailed according as the principles of democracy rose and fell. It is when Louis Philippe ascended the throne that practical shape to education was given as affecting all classes of people. All educational reforms were carried out by his minister, Guizot. He widened and strengthened primary education, for he considered it necessary for all classes of people according to the positions which they were called to occupy. But he thought that all people should have access to secondary education and he would not give that privilege of social equality which the lower classes aimed to have with the highest social order. Hence he filled up the gap by introducing the system of higher primary education between primary and secondary education. Without closely tracing its history in detail it may be said that this system is intended to be self-complete in itself without leading to secondary education. Its object is to so blend

a preparatory course of general education with the beginning of professional instruction and to furnish able assistants and workmen to the various business houses and factories. In France social prejudices were always at work in the 19th century and their influence was felt even in the introduction of secondary education. The system of examination in secondary schools in France differs from that of Germany. The French educational system is not so very well defined as in Germany, but still the various types of institutions are found there. In the practical schools of commerce and industry an examination is held for a leaving certificate at the end of the full course. The teachers for these schools are chosen after a careful selection on the result of a searching examination. Scholarships are also awarded to students to proceed to foreign countries in accordance with the proficiency shown in one or more languages. Above the practical schools of commerce but, in no way connected with them, come the *Ecoles Nationales Darts et Metiers* and official accounts of these schools always insist on the practical aim they should afford. Again there are in France technical high schools as in Germany of the University type to provide instruction for industrial and commercial pursuits. The industrial schools are earlier in their origin than the other. As regards commercial education in France, it may be said that the interdependence of Commerce and Industry has always been kept in mind. The *Ecoles Supérieures de Commerce* of Paris is the oldest of the commercial high schools in which industry also forms part of the programme. It grants diplomas and certificates based not only on the results of the final examination, but also on the marks awarded to the student throughout his course of studies. It also offers travelling scholarships. The *Ecoles des Hautes Etudes Commerciales* is of a slightly higher grade than the abovementioned institutions. All these commercial high schools require a knowledge of sound general secondary education. The curriculum of studies includes such subjects as commercial law, history, geography, book-keeping and accountancy, political economy and so on. Commercial museums are an indispensable factor in schools of commerce in France and they go far towards educating the minds of pupils and enlarging their ideas.

In studying the history of American education, it has to be remembered that there is no national system of the kind found in France and Germany controlled and organised by the national government and looking at the different conditions of

the social and political organisations of the people, one should naturally expect to find the greatest possible variety of educational organisation. But this can be minimised a great deal when a common national purpose arises and that is seen only towards the end of the 18th century. The Revolution of 1776 therefore realised that education alone, will make the people rule themselves. A system of education was, perhaps, established not to ward off foreign aggression but to make democracy a perfect success. But then the struggle seems to have existed between the teachers and experts on the one hand, and the popularly elected representatives of the people on the other as regards the control of the educational system. Gradually there has been growing a tendency towards centralisation in educational matters concurrent with that of giving greater power to the expert. Each State should be considered a central authority itself and the national government assists by way of supplying information to all the States as regards the commercial educational systems throughout the world and it is owing to some common features of control in educational systems in all the States that something approaching a common system of schools has arisen in America. It may now be seen what foundations America has laid for education in Industry and Commerce. The diversity in her educational system noted already extends also to elementary education. Attendance of peoples in elementary schools is made compulsory in some cases. She has made secondary education freely accessible to all classes without any restrictions as in France and Germany. Here again her spirit of democracy speaks for itself. In the eyes of her people a child should naturally pass from the elementary to the secondary and finally to the college course. The real move for a proper establishment of the secondary schools set in after the Revolution and the next 30 years witnessed a number of such schools springing up. Even in secondary schools much variety is to be found but they insist on a course of sound general education prior to the special course of studies. Commercial departments also are to be found in some of these schools and there is no uniformity in the course of studies. Even the central high school at Philadelphia, which is considered to be an ideal type of secondary commercial school, does not seem to give more than a smattering of knowledge though the business college at the same place provides a better course of training. It is the colleges and universities that one should turn for the highest type of com-

mercial education. One should have two essential requisites before entering them, an acquisition of general knowledge and a wide development of intellectual power. It follows that when the struggle for life is keen that one's mental powers should be highly developed so as to act with a ready decision when occasion demands. There is one decisive advantage in receiving instruction in the highest type of educational institutions. Mr. Ashley writes in the "International Review of Commerce and Industry":—"Surely, unless there is some overwhelming reason against it, it is much more satisfactory that all the young men who seek the highest type of training for their subsequent careers, whatever those careers may be, should receive it in wide, all embracing Universities, when they will meet students of diverse origins and manifold interests, and get rid of their class narrowness. The forces tending in the direction of specialisation and so pressing now-a-days that they need to be counteracted by all the influences that can enlarge the sympathies and promote mutual understanding."

It is now necessary to compare England with these three countries as regards the progress she has made in the field of industrial and commercial education. Though herself a great nation she was the last to recognise the need for a national system of education first to elevate those who had occupied the lowest ranks of industry and secondly, to educate those who would be called upon to control the new forces of industry. Voluntary efforts were not solely wanting at any rate to bring elementary education within the reach of all classes of people. The pioneer in this moment was Doctor Birkbeck and his efforts were doomed to failure for he attempted to teach scientific principles to workmen who had no preparation. Anyhow he provided a basis on which to work upon. It was not before 1870 that the nation looked forward to establish elementary education within the reach of the poor on the voluntary efforts laid by the National and the British and the Foreign Society. The science and art department created before this period to control and organise industrial education, found that elementary education should form the basis of instruction; and the provision made by voluntary efforts was only meagre. Even as late as 1884, when the control of elementary education was taken away from the science and art department and given to the education department between which there were disputes for very many years to come as regards the powers of control, the idea of a national system of education did not take any practical shape. But one thing should be said that the

greater part of the 19th century was spent in the attainment of democracy, and so long as that was made possible, the Government could not devote its attention to any educational system as it had itself faith in its own permanency. Even when the science and art department was furnished with a basis of elementary education by the Act of 1870, it found that the secondary schools were not well-organised, attention being paid only to classical studies. It was competent to reform these classical secondary schools and thus to provide a broad basis of general development on which it could build. The result has been the introduction of premature specialisation which in fact should begin only after the secondary school course. "True hearts and clear heads" are to be the requisites of national greatness, but it is said that "in industrial England the tendency has been to consider in her education clear heads alone." Matthew Arnold gave timely warning that secondary education should be well-organised and that correlation between the elementary and secondary education should be clearly perceived. It may be similarly said that the secondary school should naturally pass to the University sphere. Both the secondary schools and the Universities in the past only provided a classical scheme of studies and the new branches of learning, especially, had no attraction in the Universities. It was thought fashionable for gentlemen to study only the classic lore and not turn their attention to any thing else. It is now, of late that the Universities are inclined to think a little seriously of higher commercial education and the new ones, especially, have already shown signs of that spirit. Mr. Ashley in the course of his article puts in a vigorous plea to English business men to consider the question of higher commercial education very seriously. He says "there are now faculties of commerce not only at Birmingham, which was first in the field, but also at the Universities of Manchester and Leeds, at the National University of Ireland, and at Belfast University. There are courses for a like purpose at the London School of Economics; there is an Economics Tripos at Cambridge, and quite recently I understand, Oxford has introduced a Commercial Diploma open only to graduates." It may, perhaps, be useful to quote here the words of Mr. Sadler who in his "England's Need of Commercial Education" says as follows:—(1) We need in England a much higher level of average education for little children during the very critical years from 3 to 9. Very much depends on the home. Very much depends on the teaching which little children receive. (2) We need in England a great

deal of very first-rate secondary education on modern lines, especially (though not exclusively) for boys between the ages of 9 and 16. We must cultivate and refine their imaginations; we must widen and yet brace their sympathies; we must habituate them to the practice of accurate observation, encouraging in them independence of judgment initiative in action, and variety of experiment. (3) At the top of a thoroughly efficient and "live" system of general and unspecialised secondary education we need specialised commercial schools and classes of many different types and several grades. (4) In order that all these different grades of education may work fruitfully together, we need to develop a much stronger interest in education throughout the length and breadth of the land. A strong public interest in education and the impression made in the public mind by a well-arranged and clearly intelligible system of national education react on one another. (5) Educational reforms will be found to lie at the root of the most necessary social reforms. From a comparative study of these four great countries it may be seen that Germany, France and America have built up national systems of education in which industry and commerce have received their full share of attention. England cannot be said to have developed such a national system and to have trusted her educational experts as in other countries. Both France and Germany count upon the general education provided in the secondary schools as a preparation for more specialised courses. Both of them have placed their secondary schools under public control. America has made a large provision of free Secondary and University education.

We cannot afford to omit from our list that gallant little country, Belgium, which has made such a heroic self-sacrifice in the present war. One reason of our examination is that she closely resembles India in her gift of natural resources which she has turned to advantage in her commercial activity by her enterprise, self-sacrifice and her technical skill and labour. But now a deep sigh passes over us when we think of the whole country being devastated. In India it is only now that signs of development are visible and she may be said to be on the line of progress though that spirit was sadly absent sometime ago. It is hoped, therefore, that India's trade may expand on account of the new spirit alluded to and the opportunity now given by the European crisis. She, like England, should hope to advance, though in a minor degree, as the material progress of a country depends to a great extent on her industries and commerce. Without any further

digression we may just see what Belgium has done for her educational equipment, especially in commerce. It is the growth of Indian trade with Belgium during the past few years that urges us to speak of her at present. She had the fortune to establish the first commercial college in the world of the University grade. The superior Institute of Commerce at Antwerp is under the direct management of the Government and imparts instruction in all branches of commerce in several languages. After two or three years of study diplomas are granted, one the lower, and the other, the higher in Licentiate in Commercial Sciences. This institution has served as the model for the establishment of similar ones in Belgium itself and the superior one of Tokio in Japan. It offers also travelling scholarships to promising students and sets apart £2,000 a year on that score. There is a fine museum attached to it to give practical lessons to students.

We have finished with all the western countries. We have now to make mention of one in the east and that, the last before we take into account our own country. It is Japan, that great guardian of eastern waters in the present war. It is not proposed to give any detailed information as regards her educational system. But one prominent and common feature, which is running through all the different grades of instruction provided there, demands our earnest attention. It is what is called "morality." It begins from the earliest years of school life and runs right up to the end of their special courses in commercial subjects. It forms quite an unique feature in their teaching. In other words, public knowledge and public duty seems to be the best equivalent for it. It has a different significance according to the grade of school in which a pupil is studying. It is stated thus, "To a child, 7 or 8 years old, in the Elementary school, *morality* means an understanding of what goes on in the streets of the city; as it gets older understanding of all kinds of institutions; as it goes to the middle school interest is developed in the constitution of Japan and the national institutions of Japanese life. To students at the special schools, this is presented in another form, the commercial system of Japan, its public regulations, its institutions, the meaning of organisation and labour. "In these several phases the Japanese child is taught the meaning of public life, public duty, the citizen's rights and the aspects of life that go to make up a community." It is considered that a knowledge of the markets of the world is a part of the citizen's duty for both the employer and the employed.

After making a rapid survey of the educational

systems of different countries, though cursorily, it remains to see what the scope and aim of commercial education should be in our country. Three different courses of studies should be recognised for the three different classes of men who are likely to be engaged in the field of commerce and industry.

The first is the elementary grade for those who occupy subordinate positions in business houses such as junior clerks. They will have to do the ordinary routine work in an office such as indexing, copying and so on. Primarily they should have a knowledge of the Three R's. In fact they should have a good grounding in general knowledge followed by two or three special acquirements such as an acquaintance with business routine and office-work and the elementary principles and methods in Book-keeping and Commercial Arithmetic. It may be seen, therefore, that, considering the nature of their work, the special education, which they will receive, will be elementary in its character. But fortunately or unfortunately it is this class that is too numerous and is in search of appointments in business houses.

The next is the secondary grade for those who will occupy more responsible positions such as correspondence clerks, business managers, accountants, auditors and so on in the various kinds of business, shipping, banking, manufacturings, etc. They should necessarily have a better and more solid knowledge than the former class. Business correspondence, advanced accountancy and auditing dealing with the various classes of accounts, commercial geography, banking, shipping documents and negotiable instruments may form roughly an outline of their course of studies.

The third is the collegiate grade of the University type for those who will have to face many complexities and intricacies of business life. Leaders and employers of industries, merchants and traders form this class, and consequently they require a higher level of training from the other two classes. As has been found in the Universities of Europe and America a good general education should precede a specialised course. The mind should be sufficiently well-developed before it can receive such a high grade of instruction. An outline syllabus for this course may be somewhat as follows: a knowledge of the theory and principles of trade including such things as buying and selling and the chief causes affecting success or failure in business undertakings with illustrations of modern cases, a thorough study of commercial law; a facility in accountancy to open a complete set of books for either a merchant or a manufacturing office, and to prepare

trading profit and loss accounts, and a balance sheet also to start a system of cost accounts suitable for business; a clear notion of the method of exporting and importing goods; and lastly sufficient acquaintance with the theory and banking of exchange, organisation of industry and commerce, etc. What has been said as regards the syllabuses of the three grades cannot claim to be exhaustive, but they indicate fairly enough the line of study to be followed. A good general education is the *sine qua non* for success in all of them and it only varies in degree with the grade of study undertaken.

The aim should then be, to afford training to those who will hold different ranks in business life. A preliminary training will be highly useful, though some, utterly ignorant of the conditions under which commerce is carried on at present, be little its value or have probably no faith in it. Some Indian firms, we shall hope it is only a few, have had to collapse owing to an inefficient system of account-keeping and improper management. We only wish they are things of the past. The instruction given in schools should be educative. It should train one in habits of accuracy, mastery of details, and clearness of expression. A breadth of view—a love of order and economy should result from it. No one should think it a degradation to begin from the lowest ranks in business. A cobbler who does his work to a nicety attracts our attention; a typist who puts zeal into his work and shows himself to his best advantage in his work commands our admiration. Both produce works of art, each in his own way. A study of Book-keeping has very many advantages in training the mind. A trial balance teaches lessons of eternal truth. To reason at every step and transfer the various items from the subsidiary books to the ledger implies a development of the mind hardly to be expected without any systematic training. A good knowledge of shorthand brings within reach the vast stores of literature if one is painstaking. It affords a mental training not less useful or advantageous than any other. A knowledge of Commercial Geography reveals the wise provision of nature in different countries suited to the climate and other conditions, and also gives an insight into the manners, customs, trade and industry of the various peoples inhabiting the earth. In fact, each subject has its own claim in training the mind.

We may next consider the provision to be made for the three grades of study dealt with. The elementary grade should be incorporated with the Secondary or the High School course. The outlook is not gloomy now as commercial subjects

have been included in the School-Final Course. Hitherto the High School was only the portal for entrance into the college; there was nothing in the way of preparation for business pursuits for those who will have to discontinue their study. There should be a variety of subjects which while taking one to the college for specialised courses, should at the same time, serve as openings for entering business or other career. The one advantage of this course is that both the general and special education is continued at the same time.

Then the next stage—the secondary—naturally claims our attention. There should be separate schools of commerce for this grade in important centres to offer instruction of a specialised kind in the various commercial subjects. Schools established at Calicut, Lucknow, Bombay and Calcutta show the possibility that commercial education is likely to be popular in course of time. The number is insufficient and there should be a large network of such schools in all large centres of business and industry.

Now looking ahead to the collegiate grade, we have to say that the necessity for establishing colleges, which will turn out efficient and useful young men able to hold their own as captains or leaders of commerce and industry, is being felt more and more in India at present. Of course we agree with those who say that theoretical training cannot take the place of experience. But that does not dispense with the need of starting such colleges. The seeds sown in a school should really yield a rich harvest when young men, with a little practical training, prove to be excellent leaders and able managers of different kinds of business. Bombay has already taken the lead in establishing a Government College aided chiefly by public and private bodies and it should serve as a model for other sister cities to follow suit.

The subjects taught are Political Economy, Merchantile Law, Practice of Accountancy, Economic History and Economic Geography. "The object of the college is to furnish young men embarking on a business career with a University education of such a kind as will assist them by deepening and widening their understanding of industrial and commercial conditions, to rise to more important and responsible positions in their respective vocations." A separate faculty of commerce should also be created in the various Universities.

There is not very much to record about the history and progress of commercial education in India. But there is a gradual change now.

Bombay has been the pioneer and has developed more rapidly than others in this matter. There are private institutions having commercial classes. Commerce has been recognised as an optional subject in the School-Final Examination; and the London Chamber of Commerce Examinations are conducted by Government. Recently we have seen the establishment of the Government College of Commerce already alluded to which promises to be a success in imparting the highest kind of training required for business operations. It seems of late provision has also been made for a course in actuarial science. The commercial classes opened in 1903 in the Presidency College, Calcutta, in order to provide advanced instruction were removed to another in 1907 and the scheme of studies was reorganised. It seems evening lectures are also given in Banking and Political Economy, Commercial Law and other subjects for the advantage of those employed in industry and commerce. In the Punjab it will be seen that a Committee was appointed by the Government in 1905 to enquire into the state of commercial education. It proposed certain schemes of study and also recommended the establishment of an employment bureau to assist qualified candidates in securing suitable positions, and the appointment of an Advisory Committee having powers to visit commercial schools and classes. The Committee was also to be kept informed of the progress of commercial education in the other parts of India. The Government decided to open commercial classes in select High schools and to appoint an Advisory Committee. Commercial subjects are included in the Madras Government Technical Examinations, and the Government School of Commerce, Calicut, has been favourably reviewed in the education report. All these steps clearly indicate a true line of progress though small, and time alone will show what may yet be in store as regards the development of this branch of education. From information available from the Blue Book issued by Government on the subject of "Progress of Education in India 1907-11-12," it may be seen that, though no special prominence is given to commercial education, the number of pupils in special schools in India has grown from 11,485 in 1819 to 17,929 in 1911-12. And that the commercial schools under Government coming into the purview of this report, have grown from 12 schools and 584 pupils in 1906-07 to 28 schools with 1,543 pupils in 1911-12." The Educational Conference held at Allahabad in February 1911, dealt mainly with industrial education among other things. Again a Committee was appointed by the

Secretary of State for India on the 27th March 1912 "to inquire and report as to the facilities available for Indian students for industrial and technological training in this country, with special reference to the system of State Technical Scholarships established by Government of India in 1904. It has been remarked that it is satisfactory to record that the scholars sent by the Government of India have on the whole been a credit to their country" and that as a class Indian students were well spoken of at the educational centres visited by the Committee. It may be naturally inferred from the above observations that commercial education also will occupy a main theme of discussion in time to come and that scholarships will be offered for deserving students who, having obtained enough education in this country, would like to go or should be sent to foreign countries to perfect their knowledge.

Certain important conclusions naturally force themselves upon our minds after surveying the question of commercial education. It has been seen in the course of the paper how commerce and

industry are linked together and how both should work hand in hand, for the economy of production is closely allied to that of distribution. The faculty of distribution should as equally be developed as that of production for which a sound preliminary training suited to the modern conditions is necessary. True commercial education should make provision for the three classes of workers engaged in Commerce and Industry. Especially the higher grade of studies should tend towards a healthy development of the mind and the consequent acquisition of the necessary qualities for the proper conduct of business. Further, commercial education will reach its high water-mark only when it aims at real citizenship and cultivates the habits of self-reliance and the qualities of manhood. Commerce is a great civilising agent, and with its advance all the different nations will be brought together having one purpose to serve, one ideal to follow and one cause to represent the duty of man towards man when India bound with England will have a prominent place in the great brotherhood of nations, in the vast federal union of the world.

SOCIAL LEGISLATION UNDER HINDU GOVERNMENTS

BY

PROF. S. KRISHNASWAMI AIYANGAR, M.A.

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HISTORY OF EDUCATION IN THE UNITED PROVINCES—II.

By Mr. B. SANJIVA RAO, M.A. (CANTAB.)

SECONDARY EDUCATION.

In the report of the Education Commission, Secondary education is described as "that which

leads up from the primary to the collegiate course." We shall therefore include in Secondary schools both Middle and High schools. Secondary schools are divided into two classes: English and Vernacular.

The following tables show the number of Secondary schools for Boys and the number of scholars in them:—

Provinces.	English Secondary Schools.					
	1886-1887.		1891-92.		1896-97.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
Madras ...	507	50,246	491	804	49,022	60,471
Bombay ...	867	85,094	852	403	39,868	32,878
Bengal ...	1,016	115,910	1,195	1,385	1,35,984	1,53,298
N.-W. P. and Oudh ...	133	22,770	139	169	21,909	21,411
Punjab ...	109	25,962	136	193	80,540	39,665
Central Provinces ...	97	4,114	78	84	4,999	6,786
Burma { Lower ...	...	...	11	...	630	...
Upper ...	43	6,026	46	67	7,027	9,174
Assam ...	60	6,996	67	87	7,451	8,562
Coorg ...	3	441	3	2	600	647
Hyderabad Assigned Districts ...	36	4,695	26	28	4,689	3,992

Comparing the figures for 1886-87 and 1891-92, Madras shows a diminution of 16 schools with a loss of 1,224 pupils; Bombay a gain of 15 schools and 4,274 pupils; Bengal a gain of 179 schools and 20,624 pupils; the N. W. P. and Oudh a gain of 6 schools and a loss of 861 pupils; Punjab a gain of 27 schools and 4,578 pupils; Central Provinces a gain of 11 schools and 885 pupils; Lower Burma a gain of 11 schools and 360 pupils; Upper Burma a gain of 3 schools with 1,001 pupils; Assam of 7

schools and 545 pupils; Coorg a gain of 59 pupils, and Hyderabad a loss of 56 pupils.

We may point out that the N.-W.P. and Oudh not only show a very small increase in the number of schools in 1891-92 as compared with Bombay, Bengal, Punjab, Lower Burma and Assam, but it is the only Province which while showing an increase in the number of schools shows a diminution in the number of pupils.

Provinces.	Secondary Schools for Boys—Vernacular.					
	1886-1887.		1891-92.		1896-97.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
Madras ...	47	3,089	89	149	4,350	10,953
Bombay ...	...	...	...	...	...	...
Bengal ...	1,157	64,478	1,113	1,140	61,351	65,441
N.-W. P. and Oudh ...	468	42,337	333	297	30,090	31,769
Punjab ...	125	18,047	123	122	16,169	18,925
Central Provinces ...	...	...	171	149	18,576	18,762
Upper Burma ...	...	...	...	...	...	...
Lower Burma ...	15	1,279	22	160	1,579	9,918
Assam ...	47	3,455	43	48	2,854	2,985
Coorg ...	...	...	...	...	...	...
Hyderabad Assigned Districts ...	...	...	...	...	...	...

There is a general decrease in the number of schools except in two or three provinces. But the decrease in the number of Vernacular schools is most marked in the N.-W. P. and Oudh, where there is a loss of 135 schools and 12,147 pupils. Almost all of these schools are under Local Fund Boards and the following explanation is given of

the decrease. The report for 1887-88 says:—"An inquiry into the staff attached to the schools showed that many of the village schools had been raised to the middle standard without any adequate staff being provided. The inevitable result was that the teachers devoted themselves to the preparation of two or three pupils for the Middle examination, to

the neglect of the primary classes, which constituted the most important section of the schools. These schools are now being reduced to the primary standard and in future no middle classes will be maintained in any school for which a full staff for the primary classes is not provided; as well as that required for the middle.

THE MEDIUM OF INSTRUCTION IN SECONDARY SCHOOLS.

The question whether English or the Vernacular should be the medium of instruction in Secondary English schools was fully discussed by the Education Commission. No decision was arrived at or recommendation made; but the question was referred to the various Local Governments. The opinion of the N.-W. Provinces was against the use of the Vernacular and in 1889, the curriculum was revised in accordance with this view. The course of instruction was so arranged as to lead up definitely to the entrance examination. As a cause for the change it was said:—"Men, who for many years past have been teaching every thing in the Vernacular, cannot now express themselves in English as they formerly did, and the young men, who have been more recently appointed and whose own training was imparted to them under that retrograde system, are under the same difficulty. Neither students nor pupils can now speak to each other in the language with which, if they desire to prosper in life or take up any of the modern professions or carry their studies far enough to obtain a University degree, they must make themselves familiar."

Secondary Education from 1891-92-1896-97.
NUMBER OF PUPILS IN SECONDARY SCHOOLS FOR BOYS.

Provinces.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	Percentage of increase or decrease 1896-97 compared with 1891-92.
Madras	53,372	57,799	59,684	64,464	68,473	71,424	+34%
Bombay	39,368	40,306	42,170	44,438	46,279	52,878	+16
Bengal	197,285	201,749	202,213	210,405	210,976	218,739	+11
N.-W. P. and Oudh	51,999	53,154	56,270	56,019	55,206	56,180	+8
Punjab	48,709	48,812	51,328	52,632	56,969	58,590	+20
Central Provinces	23,575	27,604	29,546	30,955	25,907	25,498	+8
Burma	9,236	9,998	15,599	15,562	18,610	19,092	+107
Assam	10,305	10,399	10,393	10,790	11,043	11,547	+12
Coorg	500	533	646	842	821	647	+29
Berar	4,639	4,672	4,500	4,503	3,716	3,992	-14

Expenditure in Secondary Schools for Boys.

Provinces.	English.		Vernacular.	
	1896-97	1891-92	1896-97	1891-92
Madras	12,42,915	13,15,711	13,753	24,510
Bombay	10,11,215	13,62,080		
Bengal	21,60,826	25,96,468	4,45,351	4,58,845
N.-W.P. and Oudh	6,70,322	8,05,943	1,98,181	1,88,295
Punjab	4,91,725	6,72,925	1,09,412	1,18,468
Central Provinces	1,16,786	1,87,732		78,484
Burma, Upper		20,109		
Do, Lower	2,55,372	3,91,867	14,167	4,814
Assam	1,18,771	1,31,511	28,698	28,118
Coorg	14,818	13,585		
Hyderabad Assigned Districts	78,280	79,981		

In the amount of money spent on Vernacular education, the N.-W. Provinces show a decrease of Rs. 10,000 while other provinces show an increase with the exception of Assam where there is a very slight decrease.

In 1889 the Government of the N.-W. Provinces addressed a letter to the Government of India pointing out that the chief obstacle to the establishment of a new final standard for High schools or of an alternative Entrance examination were "that no facilities existed for teaching the course of study which either examination was calculated to test and that as regards the alternative Entrance examination owing to the fact that no bifurcation of studies was possible till after the Intermediate examination of the University, it would lead to nothing."

This difficulty was removed by the decision of the University in 1891 to introduce alternative courses in the Intermediate examination, similar to those already adopted for the B. A. Examination. Shortly after this a Committee on Technical Education was appointed by whom a scheme for a "School Final Examination" was drawn up and in January 1892 the Senate adopted this scheme unaltered.

The decrease in Bombay noticeable in 1896-97 was entirely due to plague. The rate of increase maintained in the first 3 years is not maintained in the fourth. No satisfactory reason has been given.

Number of Boys of School-going age of whom one was in each stage.

Provinces.	1886-87.		1891-92.		1896-97.	
	High.	Middle.	High.	Middle.	High.	Middle.
Madras	494	118	308	118	200	84
Bombay	168	110	135	105	173	115
Bengal	368	135	205	122	196	119
North Western Provinces and Oudh	2,038	281	1,462	315	1,473	300
Punjab	1,200	169	818	145	573	105
Central Provinces	1,940	255	1,472	147	1,300	118
Burma	3,714	343	2,901	278	1,584	172
Assam	598	254	424	194	358	180
Coorg	288	70	320	78	187	49
Berar	548	127	474	118	316	110

The North-Western Provinces is at the bottom of the last with the single exception of Burma. While even in the small state of Coorg one boy in 288 is in the high school and, in 168 in Bombay, in the N.-W. P. and Oudh one in 2,038 alone succeeds in getting into the high school. As the Third Quinquennial Review says:—"The North-West has reduced its bad figure from 2,038 to 1,473 though not at all in the latter period (1881-1896.) It is still the worst province of all excluding Burma, and has only one pupil in the high stage to five for the whole of India." (The italics are ours). Again in the middle stage, "The North-West exhibits actual retrogression, from 281 to 300, being far the worst figure for any province and more than twice as high as the average for all India." If we take the percentage of boys in the secondary schools to the male population of school-going age we obtain the following figures:—

Provinces.	1886-87.	1891-92.	1896-97.
Madras	1.25	1.16	1.69
Bombay	1.74	1.68	1.43
Bengal	1.08	1.31	1.36
N.-W. P. and Oudh	.42	.38	.40
Punjab	.74	.81	1.13
Central Provinces	.75	.74	.92

Provinces.	1886-87.	1891-92.	1896-97.
Burma	..	.61	.42
Assam	..	.62	.75
Coorg	..	1.68	1.59
Berar	..	1.57	1.68

As regards these figures the Quinquennial Review says:—"The North-West is conspicuous for an actual decrease, (the italics are ours) its proportion being little more than one-third of that of India generally." "It must be admitted, with the Director," says the Review, "that on the surface there does not appear to be much sign of progress in Anglo-Vernacular education during the year or during the last five years. But he points out that the raising of fees has had much to do with this result and that signs of improvement are already visible. There is little doubt that the numbers would have risen still higher, had fees continued to be levied at the old cheap rates. And yet there is an admission made at the same time 'that the want of progress shown by this class of schools is partly due to the exceptional and widespread distress.' The raising of fees at such a time of 'exceptional and widespread distress' seems to us to have been a little untimely."

Expenditure on Secondary Schools.

Provinces	ENGLISH.				VERNACULAR.			
	1891-92.	1896-97.	1896-97 compared with 1891-92 increase p. c.	1891-92 compared with 1886-87 increase p. c.	1891-92.	1896-97.	Increase p. c. 96-97 compared with 91-92.	Increase p. c. 91-92 compared with 86-87.
Madras	13,15,711	14,52,977	+10 p. c.	+6 p. c.	24,510	92,636	+278 p. c.	+78 p. c.
Bombay	13,62,080	15,67,301	+15 p. c.	+35 p. c.	..	..	..	..
Bengal	25,96,468	30,08,072	+16 p. c.	+20 p. c.	4,58,845	4,62,417	+1 p. c.	+3 p. c.
N.-W. P. and Oudh	8,05,943	8,78,025	+9 p. c.	+20 p. c.	1,88,295	2,03,303	+8 p. c.	+5 p. c.
Punjab	6,72,925	8,37,069	+24 p. c.	+37 p. c.	1,18,468	1,28,454	+8 p. c.	+8 p. c.
Central Provinces	1,37,782	1,93,801	+41 p. c.	+18 p. c.	78,484	75,750	-3 p. c.	+0
Burma	8,51,476	4,21,508	+20 p. c.	+32 p. c.	4,814	48,802	+914 p. c.	+66 p. c.
Assam	1,31,511	1,63,497	+24 p. c.	+11 p. c.	28,118	30,675	+9 p. c.	+2
Coorg	13,535	15,40	+16 p. c.	+9 p. c.	..	..	..	..
Berar	78,981	75,204	-5 p. c.	+2 p. c.	..	..	..	..

In the N.-W. Provinces the total expenditure for English Secondary schools increased by Rs. 72,078, i. e., per cent., while the pupils increased at the rate of 11 per cent. Here again the amount derived from Local and Municipal funds shows a decrease.

In the case of the expenditure on Vernacular Secondary education, the total expenditure has increased by Rs. 15,008 or at the rate of 8 per cent., while pupils increased by 6 per cent. The largest portion of increase is from fees. This increase is as much as nearly Rs. 30,000. For in 1891-92 the income from fees was Rs. 316,801 while in 1896-97 it was Rs. 346,270. The following remarks about the increased rate of fees are worthy of note:—

"In the North-West, the new fee rules for Anglo-Vernacular schools have produced a steady increase in the income from this source. Though the enhancement of fees was unpopular at first being interpreted as "a tyrannical measure for the repression of English education," it seems to have caused in the long run a very slight falling off in the attendance of pupils. During the last five years, the average rate has risen by about Rs. 3 a year in both State and Aided schools; while Unaided schools have likewise been able to take advantage of the enhancement. The total increase of income from fees amounts to about 20 per cent., in State schools, and to twice this amount in Aided schools. The Director records his opinion that "English education is likely to have more life in it when it is better paid for and less bounty fed than it used to be." In Vernacular Middle schools, the rate of fees is still low, the average being only Rs. 15 a year or 2 As. a month. The income from this source does not cover one-quarter of the total expenditure on State schools.....and the Director remarks: "Until people are willing to pay a fair share of the cost of Secondary education in their own vernacular, it may be doubted whether there is much vitality in their desire for education." One wonders whether the great mass of any people in the world are intelligent enough to wish to pay for their own education. The very existence of free and compulsory education in England and other civilised countries is probably a confession of the people's inability to appreciate the benefits of education. India is perhaps not unique in this matter.

But the officiating Director of Public Instruction in his annual report for 1895-1896 remarked: "It appears to me to be well established that while the majority of students have been able to pay the enhanced fees demanded of them an appreciable minority have not, and have had in consequence to forego the advantages of an English education. I have deprecated the unnecessary multiplication of Anglo-Vernacular schools, but it is important that in those which are maintained there should be due provision for the education of poor scholars as they sometimes become the most useful members of the community."

In 1901-02 statistics show that considerable progress had been made during the Quinquennium. The following table compares the progress in each province.—

Name of provinces.	Increase in the number of boys in the secondary stage.
Bengal	17,145
Madras	10,563
Bombay	8,999
United Provinces	4,729
Punjab and N. W. F.	4,208
Burma	1,518
Berar	495
Assam	...

Name of provinces.	Number of boys of whom one was in the secondary stage of an English school.
Bombay	50
Madras	54
Berar	65
Bengal	71
Punjab	99
Central Provinces	112
Assam	132
N. W. Frontier	152
Burma	161
United Provinces	278

The United Provinces continue to show the worst figure for any province and is nearly 2.4 times the average for all India. In 1897 it was slightly over twice the average for India. Five years later on the figure for the United Provinces has become comparatively worse.

Name of provinces.	Number of boys of whom one was in the secondary stage of a Vernacular school.
Punjab	297
Central Provinces	416
United Provinces	419
Burma	531
Bengal	830
Assam	899
Madras	1,032

EXPENDITURE.

The following provinces showed the largest increase of expenditure on English Schools.

Bengal	3,87,000
Madras	2,21,000
United Provinces	1,48,000
Burma	1,47,000
Bombay	1,30,000

English Secondary Schools for Boys.

Provinces.	1886—87.	1891—92.	1896—97.	1901—02.	1906—07.	1911—12.
Madras	S. 507 P. 50,246	491 49,022	394 60,471	437 4,514	463 89,390	375 102,886
Bombay	S. 337 P. 35,094	352 39,368	403 32,878	427 43,397	445 52,292	480 67,554
Bengal	S. 1,016 P. 115,310	1,195 135,934	1,335 153,298	1,481 191,648	1,048 125,925	1,194 172,577
United Provinces	S. 153 P. 22,770	139 21,909	169 24,411	194 26,537	198 33,891	189 44,973
Punjab	S. 109 P. 25,992	135 30,484	191 39,535	239 44,898	179 46,112	194 70,951
North-West Frontier Province	...	...	...	17	12	...
Burma	S. 43 P. 6,026	57 7,657	67 9,174	76 13,321	85 18,897	113 22,320
Central Provinces	S. 67 P. ...	78	84	95	126	146
Assam and Eastern Bengal	S. 60 P. 6,996	67 7,451	87 8,562	101 11,207	733 89,103	965 163,012
Berar	S. 26 P. ...	26	28	28	...	...
Coorg	S. 3 P. 441	3 500	2 647	2 522	2 431	2 355

Vernacular Secondary Schools.

Madras	47	89	149	101	...
Bengal	1,157	1,113	1,140	970	...
United Provinces	468	333	297	301	...
Punjab	125	124	124	112	...
N.-W. F. Province	...	...	...	11	...
Burma	15	22	160	254	...
Central Provinces	...	171	149	141	...
Assam	47	43	48	45	...

Pupils in Secondary Schools for Boys.

Madras	53,285	53,872	71,424	83,494	...
Bombay	35,094	39,368	32,878	43,397	...
Bengal	179,788	197,285	218,739	244,992	...
United Provinces	65,007	51,999	56,180	67,269	...
Punjab	44,009	48,709	58,590	62,578	...
N.-W. F. Province	...	...	...	5,082	...
Burma	7,305	9,236	19,092	29,334	...
Central Provinces	4,114	23,575	25,498	25,888	...
Assam	10,451	10,305	11,547	14,027	...
Berar	4,695	4,639	3,992	4,569	...
Coorg	441	500	647	522	...

Expenditure on English Secondary Schools.

Name of Provinces.	1886-87.	1891-92.	1896-97.	1901-02.	1906-07.	1911-12.
Madras	12,42,115	13,16,000	14,53,000	16,74,000	20,01,633	27,11,424
Bombay	10,11,215	13,62,000	15,67,000	16,97,000	19,38,908	25,19,181
Bengal	21,60,826	25,96,000	30,08,000	33,95,000	26,45,075	35,54,419
United Provinces	6,70,322	8,06,000	8,78,000	10,26,000	12,76,037	19,36,042
Punjab	4,91,725	6,68,000	8,32,000	9,20,000	10,84,067	15,82,427
N.-W. F. Province	...	...	...	74,000	87,592	1,26,897
Burma	2,65,372	3,51,000	4,22,000	5,69,000	9,62,293	13,76,473
Central Provinces	1,16,786	1,38,000	1,94,000	2,14,000	358,831	5,57,248
Assam	1,18,771	1,31,000	1,63,000	1,88,000	(including Berar) 13,32,752	(including Berar) 22,08,549
Berar	...	86,000	75,000	75,000	(including Eastern Bengal) ...	(including Eastern Bengal) ...
Coorg	14,813	14,000	16,000	15,000	14,533	18,876

Expenditure on Vernacular Secondary Schools for Boys.

Madras	13,753	25,000	98,000	84,000		
Bombay	...	...	...	...		
Bengal	4,45,351	459,000	46,200	401,000		
United Provinces	198,131	188,000	203,000	244,000		
Punjab	109,412	128,000	133,000	126,000		
N.-W. F. Province	...	...	...	10,000		
Burma	14,167	5,000	49,000	65,000		
Central Provinces	...	79,000	76,000	89,000		
Assam	28,698	28,000	31,000	30,000		
Berar	...	...	...	...		
Coorg	...	...	...	...		

Number of Boys of whom one was in the Secondary stage of an English School.

Madras	87	...	54	...	52
Bombay	59	...	50	...	34
Bengal	90	...	71	...	49
United Provinces	464	...	278	...	127
Punjab	177	...	99	...	59
N.-W. F. Province	...	...	152	...	89
Burma	274	...	161	...	112
Central Provinces	195	...	112	...	74
Assam	164	...	1132	...	41
Berar	94	...	65	...	...
Coorg	63	...	...	...	43
General average	151	...	111	...	...

Boys in the Vernacular Secondary stage compared with male population of school age

Number of boys of whom one was in the Secondary stage of a Vernacular school.

Provinces. 1886-87. 1891-92. 1896-97. 1901-02. 1906-07. 1911-12.

Madras	4,256	...	1,032		
Bengal	527	...	830		
United Provinces	584	...	419		
Punjab	406	...	297		
N. W. F. Province	...	...	654		
Burma	3,491	...	531		
Central Provinces	432	...	416		
Assam	713	...	899		

General average ... 581 ... 531

PROGRESS OF SECONDARY EDUCATION

DURING THE QUINQUENNIAL 1902-1907.

The statistics show that during the previous quinquennium the number of Secondary schools had risen from 466 to 495. In 1902 there was a decrease of 7 schools as compared with the previous year. In the year 1903 the number of Secondary schools increased by 8. The English Middle Examination was abolished and there remained only the School Final and the Entrance Examinations. The Director notes the tendency of boys to evade the ordeal of the Allahabad University by submitting themselves to what they regard as the easier examination of another University and so there was a decline in the number of candidates at the Entrance Examination. With regard to the efficiency of the Government Secondary schools the Director of Public Instruction remarked: "In most districts there is one Government Secondary English school, though by no means in all. There has not invariably been such a high standard of efficiency in these institutions as could be wished, owing to the fact that this could not easily be attained without diverting funds from primary education. There have, therefore been underpaid, inefficient, and even dissatisfied teachers in schools whose influence on the rising generation has been anything but ideal." Some improvement was made and Rs. 20 per mensem was fixed as the minimum salary for Secondary English teachers. "This has not removed all discontent among this class," says the Director of Public Instruction. "They sometimes ask why men in the same position in other provinces should have pension and they not". Another reason for inefficiency was the dearth of trained teachers, a defect which was sought to be remedied by measures adopted to increase the outturn of the Training College.

Progress continued. In the year 1903-1904, there was an increase in the number of Secondary schools by 5. There was a general desire to raise to the high standard existing English Middle schools. There were 90 High and 80 Middle English schools and 820 Vernacular Secondary schools. The number of boys in the Secondary schools rose from 22,663 to 23,856. The increase would have been greater but for the visitation of plague. The Director of Public Instruction observed: "This progress is encouraging as far as it goes; but it is evident that only a

mere handful of boys participate at present in Secondary education, Vernacular or English. The education of boys at this stage is on a par with that of girls in the primary stage, i.e., it is only at its beginning. With a population of about one-fifth of the whole of India, we return but one sixteenth of the boys in the Secondary stage in English Schools (the italics are ours). If the English education of our schools is at all worth having it cannot be contended that there is too much of it in these Provinces. It is the branch in which we fall furthest behind the general line in India.

The year 1904-1905 was an adverse one on account of plague and progress is very small. The Director of Public Instruction continued to agitate for reform and pointed out: "It is in the numbers seeking English Secondary education that the United Provinces compares most unfavourably with the rest of India. We should need to multiply the number of scholars by 4 in order to advance to the same stage of progress as the average of other provinces. The demand for this education is obviously growing, and when the education offered is made in itself more valuable as the result of recent and prospective reforms (the italics are ours) and harassing obstacles are eventually moved out of the way, there is no doubt that the people will begin to move forward."

1907-1912.

The most important event which marks the beginning of the new Quinquennium was the convening of a Committee for the purpose of advising the Local Government on a reference from the Government of India as to the measures required for the improvement of Secondary education. The Committee met at Naini Tal in June, 1907. It dealt with the question of the control of High Schools, the pay and grading of teachers therein and the institution of a new system of examination at the end of the High School stage. Its resolutions on these points were accepted by the Local Government and "the recommendations of the Committee were generally received with a chorus of public approval," says Mr. De la Fosse, "and have been hailed by all ranks of the teaching profession with genuine satisfaction. The prospect of security and better status for the teacher and the certainty of having his patient toil judged not merely by examination results but also by the work actually done in class has revived many who had begun to despair."

To carry out the views of the Committee which had recommended a transfer of control over High schools from the District Boards to the Education Department, it was proposed to relieve the District Boards of the charges for Anglo-Vernacular education, on the condition that the resources thus placed at their disposal should be devoted to the extension and improvement of Secondary vernacular education. An attempt was made to give effect to the Committee's recommendation that there should be a Government High School at the head of each district by establishing a High school at Meerut and taking over two Aided schools at Lucknow and Ghazipur. The School Leaving Certificate examination was also introduced.

During the year the number of Secondary schools increased by one from 517 to 518. But the English High schools decreased from 94 to 90 and English Middle schools from 83 to 78, although there were 2,060 more pupils and in the Middle schools nearly 500. The cost of Vernacular schools rose from 3,42,227 to 3,60,806 and of Anglo-Vernacular schools increased by 41,000 and amounted to nearly 10½ lakhs. The demand for higher standards in teaching was rapidly raising the cost of maintaining schools and Mr. De la Fosse declared that since English education in India is principally regarded as a pecuniary investment whether it might not be well asked if those who seek it should not be prepared to pay a larger proportion of the cost of the education. In a great many Government schools, the congestion was so great that it was not possible to accommodate the crowd of applicants who clamoured for admission. The question of the supply of schools was discussed by the Committee on the improvement of Secondary education and the conclusion arrived at was that the State should confine itself to supplying model schools at head quarters while generally aiding private enterprise to supply further facilities. "But said", Mr. De la Fosse, "an overcrowded school cannot be a model one" and therefore he proposed the expedient of raising the fees.

At the end of the Quinquennium, during the year 1912, the total number of scholars in English Secondary schools rose from 31,838 to 42,611, i.e., by 34 per cent. The number of Anglo-Vernacular schools rose from 94 to 102. The number of English Middle schools showed a further decrease from 83 to 68.

The expenditure on Anglo-Vernacular schools increased from Rs. 10,17,114 to Rs. 15,97,877 or by considerably more than 50 per cent. during the Quinquennium.

1907-1912.

There was an actual decrease in the number of English Secondary schools from 198 to 189. There was however, an increase in the number of pupils attending them. The percentage of increase for the provinces is as follows:—

Madras, 15.1 p. c.; Bombay, 29.2; Bengal, 3.70 p. c.; U. P., 32.7 p. c.; Punjab, 53.8 p. c.; Burma, 18.1 p. c.; Eastern Bengal and Assam, 82.9 p. c.; Central Provinces and Berar, 24.9 p. c.; Coorg, 17.6 p. c.; and N.-W. F. Province, 49.1 p. c.

The U. P. is below the average of increase. Percentage of boys in the Secondary stage in English schools with regard to male population of school going age.

	1911-12.	1906-07
Madras	3.10 p. c.	3.31 p. c.
Bombay	2.61 "	3.15 "
Bengal	3.21 "	4.17 "
United Provinces	.91 "	1.21 "
Punjab	2.81 "	4.30 "
N.-W. F. Province	2.54 "	3.71 "
Burma	2.22 "	2.24 "
Central Provinces and Berar	1.28 "	1.36 "
Eastern Bengal and Assam	3.79 "	6.13 "
Coorg	2.77 "	2.34 "

By the courtesy of the Editor, THE HINDUSTAN REVIEW, Allahabad.

THE PRESIDENCY COLLEGE, CALCUTTA.

REPORT OF THE COMMITTEE OF ENQUIRY.

(Calcutta Govt. Gazette, d/17-5-16).

We, the Committee appointed to enquire into the general conditions of discipline at the Presidency College with special reference to the strike which occurred in January last and the recent attack upon Professor Oaten, have the honour to submit our report and to make recommendations.

The first of the two incidents mentioned took place on the 10th January last. On that date, prizes were distributed to the students of the Hindu and Hare Schools by His Excellency the Governor of Bengal. Some of the professors of the Presidency College as also some of the students who were ex-students of these schools were invited to the function. The result was that some of the classes in the college were not held at the appointed hour. There was, besides, one professor who was late and did not take his class in time. Many of the students of the 3rd year class appear in these circumstances to have been present in one of the corridors contrary to the rule prescribed by the college authorities in this behalf. The particular rule (which appears in a book of instructions supplied to each student) may be here set out in full:—

"To guard against disturbances to classes while lectures are going on, it is a rule of the college that students must not enter the corridors outside the lecture-rooms on the first and second storeys of the college building, until the hour for the lectures they have to attend has struck. No student, therefore, should be in the corridors between the sounding of the second gong for lectures and the next hour; nor may students enter unoccupied lecture-rooms, except in accordance with the first part of this rule."

Mr. Oaten was at the time lecturing in one of the rooms adjoining the corridors and felt himself seriously disturbed by the noise outside; he accordingly asked the students several times to go back to their class-rooms. They did so, but, later on, in the course of the same hour, the professor in charge of the class called the rolls and dismissed the students. The boys then left the class-room and came into the corridor again with the professors

amongst them. Mr. Oaten was disturbed, came out of his lecture-room, ordered the students back to their class-rooms and pushed some of them. The evidence also shows that he stopped the professor, but the latter established his identity and was allowed to pass through. It is neither necessary for our present purpose nor possible on the evidence to determine with accuracy the exact amount of force used by Mr. Oaten, but the fact remains that the students whose bodies had been "touched" by Mr. Oaten with "an impulsive gesture," as he says, felt aggrieved and lodged a complaint with the Principal; one of these students was Subhas Chandra Bose, the representative of the class on the Students' Consultative Committee. Here it may be observed in passing that the rule in question does not appear to have been always strictly enforced by every professor of the college, especially when classes were dismissed before the prescribed hour. This is not a matter for surprise when we remember that as many as 80 lectures are delivered in the college in the course of a single day. It should be noted, besides, that on both the occasions which have been brought to our notice the presence of students in the corridor was due to exceptional circumstances. To continue the narrative, the Principal asked the students to see Mr. Oaten and advised them to make up the difference with him. This apparently dissatisfied them and the impression rapidly got abroad amongst them that Mr. James lacked sympathy with them and was reluctant to listen to their complaint against Mr. Oaten. This, as we shall presently see, was entirely unfounded and the aggrieved students wholly misjudged the real attitude of Mr. James towards them. It now transpires that while on the one hand Mr. James referred the students to Mr. Oaten, on the other hand he privately wrote to Mr. Oaten and hinted that it would be the wise and gentlemanly thing to make it up with the students. Mr. Oaten has not preserved the original letter, but this is the impression we gather from his statement as to its contents. The next day Mr. Oaten could not come to the college as he was on guard duty at Government House. On that day no classes could be held as the students went on strike. It is plain from the

evidence that the leading part in this discreditable strike was taken by a few students, while of the large majority who kept away from the classes some did so on account of fear of personal violence and others owing to a lack of moral courage to face the ridicule of their fellow-students. Some of the professors, both European and Indian, intervened but not very successfully to bring the students round and induce them to attend their classes. We desire to invite special attention here to the fact that in the organisation of this strike a very prominent part was taken by some at least of the Members of Students' Consultative Committee; while some failed to assist their Principal to uphold law and order on the occasion of this trouble, others actually spread an unfounded rumour that the Principal had no sympathy for them and thus helped in a large measure to foster discontent and to develop the strike. In the course of the day, a notice was posted by the Principal to the effect that a fine of Rs. 5 would be imposed upon every student of the college who kept away from his class. This order was issued in accordance with one of the college rules, which may be quoted here, *in extenso*:—

"Whenever the students of a class are all found to be absent, unless such absence can be shown to have been accidental and due to misunderstanding, every student of the class will incur a fine of Rs. 5. Should such absence be repeated a second time, the facts will be laid before the Governing Body and such further punishment will be inflicted as the circumstances require."

The next day Mr. Oaten returned to the college. He was interviewed by a select number of students and the matter was amicably settled. The students admitted that there had been on their part a technical breach of rules, while Mr. Oaten expressed regret for what had happened. Mr. Oaten was enthusiastically cheered by the students when he left the college premises in the afternoon and everything seemed to have ended peacefully. It now appears that after the strike was over Mr. James called together all the European members of the staff and impressed upon them that they should not on

any account touch the persons of students, as experience had shown that this invariably led to serious trouble. This demonstrates how utterly unfounded was the impression that Mr. James lacked sympathy towards the students of the college. On the day following the strike, an untoward event, however, unexpectedly happened. Mr. Oaten had to lecture to some of his students in History. When he went to his class, he found that a dozen students were present, of whom ten had been absent on the day previous. He asked the students who had been absent to leave the class. As Mr. Oaten explained to the Committee, he did so to mark his disapproval of the conduct of his own students who had failed to stand loyally by him. These students thereupon withdrew from the class and complained to the Principal of the treatment they had received at the hands of their professor. The Principal sent the complaint to Mr. Oaten, who replied in writing, seeking to justify his action as a disciplinary measure. Mr. James has expressed the opinion before the Committee that the action taken by Mr. Oaten was extremely injudicious, and in that view we all concur. The students of the college in general applied to the Principal on the same day to remit the fine which had been imposed on them. The application was rejected by the Principal with the concurrence of the Governing Body and we have ample evidence that this refusal created considerable discontent among the students. We are informed, however, that the fine was subsequently reduced to a nominal amount in the case of some poor students and partially remitted in the case of others who had attended classes on the second though not on the first day of the strike.

We next come to the second incident, which took place on the 15th February following. On that day, there was an accident in the Chemical Laboratory and the Professor of Chemistry was not able to take one of the classes. The lecture was delivered by a substitute, who dismissed the class five minutes before the appointed time. The students passed out of the laboratory and proceeded along the corridor. The evidence shows that they talked to each other and

were possibly somewhat noisy. Mr. Oaten was very near the end of a lecture he was delivering in a room adjoining the corridor. (The room and the corridor, it may be added, are different from those which formed the scene of the first incident.) He came out and remonstrated with one of the students. As soon as he turned his back and was about to enter the room, another student in the crowd, Kamala Bhusan Bose, called one of his fellow-students, Panchanan, by name. There is no reason to suppose that the boy did so with intent to create a disturbance or to annoy Mr. Oaten. Mr. Oaten, however, heard the boy call out in this way, came out of the room, caught hold of him, took him to the steward and had him fined Re. 1. The boy asserts that he was caught by the neck and was called a rascal; Mr. Oaten, on the other hand, asserts that he took the boy by the arm and denies that he called him a rascal. Whatever might have actually happened, it is certain that the impression quickly got abroad that the boy had been rudely treated. As a matter of fact, the boy forthwith complained to Mr. James that he had been caught by the neck and called a rascal. Mr. James thereupon directed the boy to make a written complaint and to see him later in the day. It appears now that Mr. James asked Mr. Oaten to see him about the matter and to meet the boy in the Principal's room. The boy appears to have drafted a petition forthwith and to have taken it home with the intention of showing it to his father; this draft has been produced before us; the fair copy was filed before the Principal on the day following. Meanwhile about two hours after this incident and shortly before 3 o'clock Mr. Oaten went to the ground-floor of the college premises to post a notice on the Notice Board. He observed a number of students (his own estimate is from 10 to 15) who were assembled near the foot of the staircase. They at once surrounded him, threw him on the floor and brutally assaulted him. Mr. Gilchrist, who was on the first floor, heard a noise and rushed down to help Mr. Oaten, but the assailants disappeared before he could reach the spot. We are not concerned with the question of identification of the actual assailants of Mr. Oaten.

In fact, that matter is under investigation by the Governing Body of the college; they have, we understand, upon evidence taken by them, expelled two of the students of the college on the ground that their complicity in the assault has been proved, and the enquiry has not yet been closed. There can, in our opinion, be no question as to the gravity of the offence committed by the persons who organised and carried out the assault, and whoever is shown to have been implicated in this disgraceful affair deserves severe punishment. We are, however, concerned here with the strike and the assault, only in connexion with the question of the general conditions of discipline at the Presidency College.

These then are in outline the incidents with special reference to which we are called upon to consider the general conditions of discipline in the Presidency College and to formulate our conclusions. Are we really forced to what, if true, would be a disquieting conclusion, namely, that the general tone of the college is bad because, although in ordinary circumstances everything works smoothly, yet, when a dispute occurred between a professor and the students, a considerable proportion of the students behaved as if they were undisciplined? Or is it the right view that there is no ground for anxiety as to the condition of the college because the two incidents mentioned, however discreditable, are due entirely to accidental circumstances and should be regarded only as unfortunate events of an exceptional and isolated character? We are not disposed to take an entirely optimistic view of the situation; at the same time we feel convinced that it would be unjust to base on these two incidents alone a sweeping condemnation of the entire college or to conclude that there had been any lack of strenuous and successful effort on the part of the Principal and the staff to maintain discipline in the institution. The true reasons for the present condition of things must, we think, be sought for in other directions, and to these we shall now proceed to refer.

The evidence proves conclusively the presence in the college and the collegiate hostel

of a number of turbulent youths whose capacity for mischief is by no means of a restricted character and who are evidently able to make their presence felt whenever there is an occasion calculated to excite the students to an outbreak against authority. The circumstances to which the pernicious influence of this class of students may rightly be attributed are not far to seek, and, as will presently appear, they have been in a large measure beyond the control of even the most devoted and efficient Principal. (1) In the first place, we hold it undeniable that during the last ten years there has been a ferment amongst students in general, due mainly to what may be called causes of a political character which need not be described here in detail. This has led in many instances to a manifest spirit of insubordination and a reluctance to render unquestioning obedience to rules and orders promulgated by lawful authority. (2) In the second place, there is the baneful influence of obviously injudicious discussions in the public press whenever a case of breach of discipline arises in an educational institution. The harm caused in this way is incalculable. (3) In the third place, we are bound to dwell upon the possibility of a disturbing influence of a very grave character. No evidence is needed in proof of the undoubted fact that revolutionary propagandists have with considerable success carried on their work among students and have from time to time brought into their camp disaffected youths of even considerable ability. To what precise extent the influence of that organisation may have affected the rank and file of Presidency College students, it is impossible to determine on the evidence before us; but it is significant that the hostel premises have been searched more than once in quite recent years, though on neither occasion was any incriminating article found. We cannot ignore the fact that one student of the college has been prosecuted under the Indian Arms Act and that his conviction was upheld by the High Court. We cannot also overlook the fact that action under the Defence of India Act has been taken by Government against more than one

student of the institution. Events like these in connexion with what is rightly deemed the premier college in this Presidency are undoubtedly calculated to cause serious anxiety amongst all persons truly interested in its welfare and reputation; and the gravity of the situation is unquestionably no way reduced when we bear in mind the character of the assault on Mr. Oaten. It may be conceded that no assault would probably have taken place on the particular day but for what may be called the Kamala incident, yet it would be idle to disguise the fact that the assault was not committed by a mob of angry students in the heat of the moment but was premeditated and carefully organised. In these circumstances, we are of opinion that special precautions should in future be exercised in the matter of the admission of students to the College, that their conduct there should be carefully watched, and that all suspicious characters should be promptly removed from the rolls by the Governing Body.

(4) In the fourth place, the arrangement which divides the staff of the college into two services—the Indian Educational Service and the Provincial Educational Service—has generated in the mind of many an educated Indian a sense of real grievance which, there is good reason to apprehend, has been reflected upon the minds of students in general. The Indian Educational Service, as is well known, is confined to those who were recruited by the Secretary of State in London and are mainly Europeans; the Provincial Educational Service consists of all those, irrespective of their qualifications, who were appointed by the Local Government. The feeling has thus become prevalent to a considerable extent that young European professors are unfairly allowed a preference over experienced Indian professors of equivalent attainments. It is, we think, lamentable that this impression should continue to gain ground, because the inevitable effect is that almost every European professor, when he first enters upon the discharge of his duties, starts at an obvious disadvantage and with a certain amount of prejudice against him; he is regarded by the students as a member of an unjustly favoured

class, and this feeling is probably shared, though it may never be expressed, by some of the young professor's Indian colleagues.

(5) In the fifth place we cannot refrain from mentioning the harm done by the occasional use of tactless expressions by certain European professors in addressing students. For instance, evidence has been given before us to the effect that a professor of the college as chairman of a meeting of students in the Eden Hindu Hostel once said in substance that; as the mission of Alexander the Great was to hellenise the barbarian people with whom he came into contact, the mission of the English here was to civilize the Indians. The use of the term "barbarian" in this connexion in its literal Greek sense, i.e., "non-hellenic," was misunderstood and engendered considerable bitterness of feeling. It is also plain that, although the true meaning was subsequently explained, the explanation reached only a small proportion of those who had heard the original version. We also had evidence to the effect that a young European professor asked certain students in the Presidency College why they were howling like wild beasts; another asked on a different occasion why they were chattering like monkeys; while a third is reported to have enquired of his students why they had behaved like coolies. Only four such instances have been reported to us as having occurred in four years, but reports of these have spread and have not been forgotten. We are convinced that in none of these instances had the professor concerned any ill-will towards the students or a desire to wound their feelings; yet the deplorable fact remains that these unfortunate expressions have been interpreted as an index of ill-will on the part of the professors towards their students or towards Indians in general. We are equally convinced that if a healthier tone had prevailed generally among the students, these expressions would probably not have been interpreted as they have been.* But while we wish to emphasize the necessity for caution and tactfulness on the part of professors in their treatment of students,

* Mr. Maithra does not share the view indicated in this sentence.

we are inclined to the view that the danger of misunderstanding would be appreciably diminished by natural intercourse between European professors and their students such as is calculated to lead to a better mutual appreciation. We realise, however, that the Presidency College is so located as to render practically impossible, for the present at any rate, such intercourse between the European professors (who are compelled to live far away from the college premises) and their students, the large majority of whom are scattered all over the city.

(6) We may finally add that the evidence shows the existence of what may be called a spirit of excessive touchiness amongst students of the rising generation. They have a very keen sense of what they call their rights, but we have unfortunately not gained the impression that they are equally alive to their responsibilities. This characteristic is, in our opinion, a matter for serious concern. If a student has a grievance, he can make his submission to his Principal; but he must distinctly realise that the Principal's decision is final and has to be accepted loyally and cheerfully. The position becomes intolerable when a student, who fails to obtain from the authorities of his college what he deems to be just redress, considers that he may take the law into his own hands and even call on his fellow-students to go on strike. Even a tacit acquiescence in so pernicious a doctrine must inevitably lead to defiance of law and order and speedily end in the annihilation not only of all academic but of all civilised communal life. Whilst we recognise that every legitimate grievance should be enquired into, students should be made clearly to understand that a frivolous complaint is in itself a breach of college discipline and will be treated accordingly.

With these preliminary observations we proceed to state our recommendations:—

(1) The Governing Body of the college should be reconstituted. It should be of a more representative character than at present and should be brought into closer contact with Government on the one hand and the community on the other. The Director of Public Instruction should obviously be a member

of the Governing Body and its President *ex-officio*. The Principal should be an *ex-officio* member and Secretary. There should be four other members of the staff on the Governing Body, two Europeans and two Indians, all to be nominated by the Director of Public Instruction in consultation with the Principal. Two representatives of the Indian community and one representative of the non-official European community should also be invited to join the Governing Body; there should be no difficulty in the selection of such representative men as have worked amongst Indian students and are familiar with the conditions of student life in Calcutta, and one of them may very well be appointed Vice-President of the Governing Body.

The College Council, which consists entirely of professors and lecturers, should, as hitherto, continue as an Advisory Body which would be consulted by the Principal whenever he desired.

(2) The Consultative Committee of Students has, we understand, been disbanded. If the Principal desires to reconstitute the Committee in future, he should himself nominate the members on the recommendation of the professors. The system of election which owed its origin to the natural wish of the Principal to secure a Committee whose views would represent as closely as possible those of the general body of students, has proved a failure, as it has brought on the Committee students of what may be called the demagogue type who are not necessarily the most desirable members from an intellectual and moral standpoint.

(3) The evidence taken by the Committee clearly shows that some at any rate of the members of the Students' Consultative Committee entirely failed in their duty on the occasion of the strike in January. They had been elected as representative students and occupied a position of some trust and responsibility; yet they neglected to assist the Principal in his endeavour to deal effectively with the strike. There is also good reason to hold that some of the members deliberately misrepresented the attitude of the Principal at that time and thereby rendered more difficult the settlement of the strike. One of the members has

already been expelled by the Governing Body on account of his conduct in connexion with the assault on Mr. Oaten; but the action of the members during the strike does not appear to have been yet investigated. The Governing Body should now fully investigate the conduct of each member of the Consultative Committee at the time of the strike, and should take strong action against any members who are found to have been implicated.

(4) The departmental system which has been introduced in the college should be retained; but we strongly advise that a member of a department should not be chosen as its head merely because he is a member of the Indian Educational Service. The professors and lecturers who form the members of a department, it should also be generally understood, stand in the relation of colleagues to each other, and any point of difference that may arise between them should be referred to the Principal for his ultimate decision.

(5) There is a potentiality for grave dissatisfaction in the relations between members of the Indian Educational Service and the Provincial Educational Service. The members of the teaching staff should consequently be appointed, not to services, but to posts on an incremental salary, and this is also the soundest course to follow from an educational point of view. If effect were given to this recommendation, much of the discontent which now prevails in the Provincial Educational Service would disappear. A healthier tone of comradeship would prevail amongst all the members of the professorial staff, and this could not but produce a beneficial effect upon the students as well.

(6) European professors, more especially the professors of Arts subjects, should possess a competent knowledge of the vernacular and, if their tastes are literary, should receive every encouragement to acquire some knowledge of an Indian classical language. Such knowledge of the vernacular is likely to foster better understanding between teachers and students. As it is difficult for a professor to learn a language in addition to the due performance of his professorial duties,

facilities should be given to educational officers appointed in England to obtain a scientific grounding at home, and their duties when they first join should be so arranged as to give them opportunities for acquiring a sound working knowledge of the vernacular.

(7) The Principal should take an active part in the work of instruction of the students and thus come into direct contact with them. A Principal who is constrained to occupy mainly the position of an administrator can hardly be expected to exercise a permanent and effective influence upon the students, as he would unquestionably do if he had the opportunity by direct teaching to impress upon them a full recognition of his high intellectual attainments. In order that the Principal may be able to deliver lectures, he should, we think, be relieved of routine duties as far as possible, which may be delegated to a professor who would hold a position similar to that of the Dean of an English college. We understand that a scheme has already been drawn up by the Governing Body of the college with a view to give effect to the suggestion we now make, and we trust it will receive early consideration.

(8) We consider that the Indian members of the staff of a college of the standing of Presidency College should be graduates of special distinction and usually with some experience in teaching work, even though this may occasionally involve transfers of professors from other colleges. Scholars of this stamp alone are likely to be able to command readily the respect of their students and to maintain a position of equality as professors in the company of their European colleagues.

(9) The question of possible structural alterations in the building should be investigated and every effort made (by the erection of additional staircases or other devices of a like nature) to minimise the likelihood of disturbance in the corridors.

(10) It is essential that a definite pronouncement should be made by Government as to the incalculable mischief likely to result from the injudicious discussion in the public press of questions relating to breaches of discipline in educational institutions. At the same time we recognise that the most effective

remedy for the situation would be the creation of an *esprit de corps* which would render impossible the ventilation of grievances in the public press.

(11) The question of a thorough re-organisation of the Eden Hindu Hostel should be immediately taken up for consideration. It is obviously an unsatisfactory arrangement to leave 250 students under one Superintendent, for, however efficient and devoted he may be, he cannot possibly exercise any real control over his wards. The arrangements contemplated for the provision of residential quarters for the Principal and some European members of the staff in the immediate neighbourhood of the hostel should be expedited. In addition to this, arrangements should be made for the accommodation in the hostel of some Indian members of the staff. We regard these recommendations as of such vital importance that we press for the immediate assignment of the necessary funds in spite of the present financial position. This, so far as we can judge, is the only means at present feasible, so as to enable the residents of the hostel to have the benefit of social intercourse with the members of the college staff. We observe that the hostel is divided into five wards, each under a professor as a warden. These professors should be encouraged to visit the hostel at intervals, and at such hours of the day, as to make it possible for them to have friendly intercourse with the students under their charge. We desire, finally, to sound an emphatic note of warning in reference to the building of hostels in the future. The evidence has convinced us that a large hostel with inadequate supervision is a source of grave danger to a college, and we strongly advocate that no hostel should accommodate more than 40 or 50 students in charge of a resident Superintendent, preferably a member of the college staff.

(12) While we have made the above recommendations for the construction of certain additional residential quarters in the neighbourhood of the present hostel, and while we consider that this provision is essential so long as the college continues in its present position, yet we desire to place it on record as our emphatic opinion that the situation of the college is most distinctly unsuitable on

account of its surroundings, both from the point of view of the congested character of the neighbourhood and the impossibility of adequate expansion in the future even at an enormous cost. The problem of the creation of a University town and the removal of the college to a more healthy and commodious site in the immediate neighbourhood of Calcutta and within easy reach of the Indian community whose boys receive instruction in the institution is by no means impossible of solution. The question is one of grave importance, and we feel convinced that unless it is approached and solved in a generous and statesmanlike spirit, there is no real hope for radical improvement; it is imperative that the large majority of the students—in fact all who do not reside with their parents or natural guardians—should be removed from unhealthy influences and every possible facility should be given for a free social intercourse between the students and the members of the staff, both European and Indian.

We understand that with a view to indicate their unqualified disapproval of the lamentable events which have happened in the college during the last two months, the Government of Bengal have directed that the college should be deemed closed for the remainder of the current academical session, subject to the reservation that the annual examination of the 1st and 3rd year students will be held in due course on such dates as may be specified by the Principal and that the students in the M.A. and M.Sc. classes will be sent up for their respective examinations on the dates prescribed by the University authorities. In view of the action so taken by the Government, which will have operated as a punishment upon all the students of the college, we are of opinion that no further disciplinary action need be taken in respect of the college as a whole, though individual delinquents implicated in the strike and the assault on Mr. Oaten should be suitably dealt with by the Governing Body.

ASUTOSH MOOKERJEE.

W. W. HORNELL.

C. W. PEAKE.

J. MITCHELL.

HERAMBA CHANDRA MAITRA.

The 3rd April 1916.

GOVERNMENT OF BENGAL.

GENERAL DEPARTMENT.
EDUCATION.*Calcutta, the 15th May 1916.*

RESOLUTION—No. 999 EDN.

READ—

The report of the Committee appointed to enquire into the conditions of discipline in Presidency College, Calcutta.

A Committee, consisting of the Hon'ble Justice Sir Asutosh Mukherji, Kt., C.S.I., M.A., D.L., the Hon'ble Mr. W. W. Hornell, M.A., Director of Public Instruction, Bengal, Mr. C. W. Peake, Professor, Presidency College, the Rev. J. Mitchell, M.A., F.R.A.S., Principal, Wesleyan College, Bankura, and Mr. Heramba Chandra Maitra, M.A., Principal, City College, was appointed by this Government in Resolution No. 416, dated the 20th February 1916, and letter No. 422, dated the 21st February 1916, to enquire into the general state of discipline at Presidency College, Calcutta, with special reference to a strike which took place on the 10th January 1916 and to an attack upon Professor Oaten which occurred on the 15th February 1916. The report of the Committee has now been received by Government and is published for general information. The Governor in Council desires to tender his thanks to the members of the Committee for their labours, for the care with which they have made the enquiry entrusted to them, and for their conclusions and recommendations, which will receive all the consideration which is due to the authority with which they have been made.

2. The Committee have described in detail the two incidents particularly referred to above and the antecedent circumstances which led up to them. With regard to the strike which occurred in January, they are of opinion that it is clearly established that some at any rate of the Students' Consultative Committee entirely failed in their duty, and that, so far from assisting the Principal, some members

rendered the task of the Principal more difficult by deliberate misrepresentations of his attitude. In respect of the assault on Mr. Oaten, the Committee are impressed with the gravity of the offence committed by those who organised and carried it out, and consider that they should be severely punished. As to the light thrown by these incidents upon the general question of discipline in the college, the view taken is that "it would be unjust to base on these two incidents alone a sweeping condemnation of the entire college, or to conclude that there had been any lack of strenuous and successful effort on the part of the Principal and the staff to maintain discipline in the institution." The Committee consider that, on the other hand, "the true reasons for the present condition of things must be sought for in other directions." They come finally to the conclusion, in which the Governor in Council concurs, that no further disciplinary action of a general nature is required, and that the Governing Body may be left to deal with any individuals who may have been concerned in the assault on Professor Oaten, and also with those members of the Students' Consultative Committee who were implicated in the strike.

3. The Committee have made a careful examination of the general state of discipline at Presidency College. They find that recently there has been some ferment among the students as a body, due, in the main, to political causes, which has resulted in the spread among them of a spirit of insubordination, and the existence of what is described as "a spirit of excessive touchiness." The Committee note that there is a tendency among these young men to insist upon what they consider to be their rights without a full realisation of their accompanying responsibilities. These unfortunate conditions are attributed in part to the activities of dangerous revolutionary propagandists, and to the baneful influence of injudicious discussion in the public Press of breaches of discipline. They are also, in the opinion of the Committee, due in part to the irritation caused by the division of the members of the college staff between the Indian and the Provincial Educational Services, and to the want of free intercourse between the European professors

and the students, which has led, on four specified occasions in the past four years, to the exhibition of want of tact on the part of the teachers and to an undue sensitiveness on the part of their pupils. The Governor in Council believes that the Committee have accurately summarized the disturbing influences which have been at work, and desires to express his general concurrence in their findings.

4. The Committee then proceed to make 12 recommendations, each of which has been carefully considered by the Governor in Council. In the first place, he accepts the suggestion that the Governing Body of Presidency College should be reconstituted so as to make it more representative and bring it into closer touch both with Government and with the public. Immediate action will be taken to give effect to this recommendation. The Governor in Council further accepts the views expressed by the Committee as to the departmental system in the college, and also with regard to the desirability of reconstituting the Consultative Committee of Students on a basis other than the system of election, which has clearly proved a failure. These views will now be brought to the notice of the Principal and the Governing Body.

5. In their fifth recommendation the Committee deal with the relations between members of the Indian Educational Service and of the Provincial Educational Service and suggest that members of the teaching staff should be appointed not to services but to posts on an incremental salary. The whole question of the future constitution of the Indian Educational Service and the Provincial Educational Service was discussed very thoroughly before the Public Services Commission, and now awaits the orders to be passed on its report. It will be impossible, therefore, to take any further action in the matter, until the recommendations of the Commission have been dealt with. The Governor in Council is in full sympathy with the views of the Committee that, in order to promote intercourse and foster a better understanding between the European professors and the students, the former should possess a competent knowledge of the

vernacular and be encouraged to learn a classical Indian language. The Committee's recommendation on this subject will be considered in consultation with the Director of Public Instruction, and after reference to the existing rules governing language examinations. The Committee further advise that the Principal should take an active part in the instruction of the students, and thus come into more direct contact with them. Orders have already been received from the Government of India sanctioning the appointment of two professors of the college as Bursar and Dean respectively, and the Governor in Council hopes that in view of the relief which will thus be afforded to the Principal, he may be able to carry out the recommendation made by the Committee. Action will therefore be taken at an early date in furtherance of this proposal of the Committee. The Governor in Council is not prepared to accept without some qualification the suggestion that professors of note should be transferred from other colleges to the staff of Presidency College. He appreciates, however, the value of the recommendation that graduates of special distinction, with some experience in teaching, should alone be appointed to Presidency College, and suitable action will be taken to give effect to it. The proposals for structural alterations designed to minimise the likelihood of disturbance in the corridors will be referred to the Principal for examination, in direct communication with the Superintending Engineer, with instructions to submit their joint proposals to the Governing Body before they are sent up to Government.

6. The Committee refer in the following terms to the question of discussion in the Press of breaches of discipline in educational institutions:—"It is essential that a definite pronouncement should be made by Government as to the incalculable mischief likely to result from the injudicious discussion in the public Press of questions relating to breaches of discipline in educational institutions. At the same time we recognise that the most effective remedy for the situation would be the creation of an *esprit-de-corps* which would render impossible the ventilation of grievances in the public Press." The

Governor in Council emphatically endorses these views, to which he desires to draw the attention of all the editors of newspapers in Bengal. He trusts that they will recognise the grave injury which may be caused to the student community by the public discussion of the grievances of youths who are still *in statu pupillari*.

7. The question of the management of the Eden Hindu Hostel, with which the Committee deal in their eleventh recommendation, will be taken up at once in consultation with the Principal and the Governing Body. The Governor in Council will also take into consideration, in communication with the Director of Public Instruction and the Vice-Chancellor and Syndicate of the University, the general recommendations made by the Committee on the subject of hostels.

8. The Committee refer finally to the undesirable character of the present surroundings of Presidency College. Proposals for the removal of the college to a more suitable situation were considered with much care and from all points of view some ten years back, when it was deliberately decided to retain Presidency College on its present site, and elaborate plans were prepared for its future expansion. In accordance with these plans, a considerable area of land has since been acquired and the Baker laboratories have been built at a large cost. The Governor in Council will, however, examine the papers connected with the previous proposals in the light of the present recommendations of the Committee.

(By order of the Governor in Council).

L. S. S. O'MALLEY,
Secy. to the Govt. of Bengal.

PUBLICATIONS RECEIVED.

School Poetry for the Senior Division, Selections for Stages, IV, V and VI. London: Ralph Holland. 6d. net.

Modern Europe, by Sydney Herbert. London: Macmillan. 2s. 6d. net.

A Class Book of Chemistry, by G. C. Donington, M.A. London: Macmillan. 2s.

English Verse Composition, by Albert E. Roberts, M.A., and Alfred Pratt, B.A. London: Arnold. 2s. 6d.

The Purpose of Education, by St. George Lane Fox Pitt. Cambridge: University Press.

God as Triune, Creator, Incarnate, Atoner, by W. H. T. Gardiner. Madras: C. L. S. 3as.

A Syllabus in War Geography and History, by Albert A. Cock, B.A., London: George Philip.

The First Year of the Great War, by Richard Wilson, B.A., D. Litt. London: Chambers. 1s. 6d. net.

Calendar of the Madras University for 1916. Vol. I, Re. 1; Vol. II, Re. 1; Vol. III, Re. 1-8. Madras: S. P. C. K. Press.

Indian Educational Notes.

Scheme approved by the Mysore Government for the Medical Inspection of Schools and Scholars—(a) The medical examination of pupils will be confined at present to District Headquarter towns. (b) It will be conducted by the existing Medical Agency, viz., in Bangalore and Mysore by the Health Officers with the assistance of the Medical Officers in charge of dispensaries in the various Municipal Divisions, and in other towns by the Health Officers or District Sanitary Officers or the District Medical and Sanitary Officers. (c) The examination of school girls will be conducted by the local Lady Medical Officers. (d) In cases of necessity, the sight of the pupils will be tested at the Minto Ophthalmic Hospital. (e) A course of 15 lectures for the benefit of teachers under training at the Normal Schools at Mysore, Kolar, Tumkur, Shimoga and Bangalore will also be organized and will be delivered by the Medical Officers selected by the senior Surgeon.

Fellows of the Indian Women's University.—Mrs. Srirangamma, B.A., the Headmistress of the Bangalore Girls' Secondary School, and Mr. C. R. Reddy, M.A. (Cantab) of the Mysore Maharaja's College, have been elected Fellows of the Indian Women's University, Poona.

The Tanjore District Teachers' Guild.

Mr. V. Guruswami Sastry, Joint Secretary, writes to us:—The annual meeting of the Tanjore District Teachers' Guild was held recently in the Municipal High School Hall, Mayavaram, with the Hon'ble Mr. K. Chidambaramudaliar presiding. Teachers had come from all parts of the District, like Tirucattupalle, Tanjore, Kumbakonam, Tiruvalur, Shiyali, etc. Including the local teachers the attendance was about 120. Messrs. Longmans and Company were represented by their travelling agent, Mr. M. Venkatarama Aiyar. The proceedings began with the reading of the Annual Report by the Secretary. The chief features of the Report were:—

1. Four meetings were held during the year under report at different places in the District.

2. The subjects discussed were the conservation of Secondary education, the rules of the Guild, lightening of the S. S. L. C. curriculum, Western education, and sound lines of reform. The Sub-Committee's report on the lightening of the S. S. L. C. course was also presented to His Excellency at the Conference of Educational Officers held at Vallam during His Excellency's stay at Tanjore.

3. At all places of the meeting of the Guild, the local Teachers' Association acted as hosts and entertained the members of the Guild to a grand dinner.

4. Six High Schools and three Lower Secondary Schools had affiliated themselves to the Guild and with the three individual members the Guild had a total strength of nearly 190 members.

5. The year began with an opening balance of Rs. 40-7-0. Subscriptions during the year amounted to Rs. 65-0-0, thus bringing up the total income to Rs. 105-7-0. The expenditure was Rs. 38-4-0 and the Guild was left with a closing balance of Rs. 69-3-0.

6. The most important activity of the Guild during the year was the agitation it set up for the modification of the rules regulating admissions into colleges and the memorial signed by a large number of Headmasters in the Presidency which the Guild submitted to the Syndicate. The expenses in connection with this memorial came up to Rs. 78-14-0 and the Guild is deeply indebted to Mr. A. G. Pitchamuthu, Mr. R. Swaminatha Aiyar, Mr. K. Seshu Aiyar, Mr. T. Rajam Aiyangar, the Hon'ble Mr. K. Chidambaramudaliar, and Rao Bahadur S. Appu Sastry for their liberal contributions towards the expenses and only a sum of Rs. 18-14-0 was taken for the purpose from the fund of the Guild.

After the report was read the following office-bearers were elected for the year 1916-17. Rao Bahadur S. Appu Sastry was elected President of the Guild and Mr. V. Mahadevan and Mr. V. Guruswami Sastri were re-elected Secretaries.

Next Mr. V. Mahadevan, B.A., L.T., opened the discussion on the rules regarding admission of pupils into Colleges. The lecturer pointed out the absurdity of basing admission on the Presidency average; for in one year the average may be very high and boys just below the average may be declared unfit while in another year the average may be much lower and yet a boy getting marks slightly above the average of that year

but far below the average of the preceding year will be declared eligible for admission. Again the system of averages, unlike and absolute minimum, must inexorably keep out half the number of candidates. In short, his plea was, that though the method of moderation may help to assist candidates in a few cases, there should be a sliding scale of absolute minima with, say, 40 % in English, 80% in the C. Group subjects and 25% in the other two A. Group subjects.

Mr. K. Seshu Aiyar followed him with a vehement speech denouncing the system of being guided by the Presidency averages and a separate minimum in each of the five subjects, as a result of which 50% of candidates will be declared ineligible in English and 10% in each of the other subjects so that even if the mathematical law of coincidence was most favourable to the candidates, only a residue of 15 to 20% would be found eligible for Colleges. The concession granted to those who fail in one subject in the way of an examination of their certificates by a Committee be declared as a fraud.

The Chairman wound up the debate declaring as his opinion that a return to the old days of the Matriculation would be most welcome to all.

The next subject "Religious and Moral Instruction in Schools" was opened for discussion by Mr. T. Rajam Aiyangar, B.A., L.T. First he drew a graphic but overdrawn picture of a present day young man taught on lines in which religion plays no part and declared that without the authority of religion no high morality is possible. Conscience and reason cannot be taken as safe guides in one's conduct, for conscience varies with individuals and nations according to time and place and reason will lead in to the root of things beyond which we cannot but seek the help of religion as the only sound basis on which morality is built up. The lecturer advocated universal religion and not instruction based on sectarian doctrines. Several members spoke on behalf of Hinduism, pure and simple, as the majority of students in the Tanjore District are Hindus and said that the few non-Hindus may be given the option of attendance.

The Chairman in winding up the debate emphasised the necessity for the teaching of religion in all schools and colleges and affirmed that pupils brought up in a religious atmosphere in hostels behaved much better in life than those trained in a purely secular atmosphere. In conclusion he complimented the Guild upon the useful work it was doing in the country's economy and wished that more members would join it soon.

The Chairman was garlanded and the Secretary proposed a hearty vote of thanks to him.

Gopalasamudram High School.—The first of May was a day of great rejoicings in the village of Gopalasamudram. The double function, the opening of the Gokhale Hall and the annual Prize-distribution, was looked forward to with earnest expectation.

The huge new building 'Gokhale Hall', erected out of public donations was opened in a very orthodox manner. The function took place early in the morning, Mr. Sundara Sastry, B.A., B.L., presiding, when Mr. R. Sivaramakrishna Iyer, B.A., L.T., gave an admirable lecture on the life and work of Gopal Krishna Gokhale.

The evening saw the hall again the scene of great activities of the annual prize-distribution ceremony, presided over by Mr. Deva Doss Pillai, B.A., B.L. The function began with prayer and music followed by the Headmaster's report,—a fine record of useful work done in the year. The next item was the Secretary's report detailing the activities of the Literary Society of the school.

The Chairman then distributed the prizes and congratulated the winners on their good work and luck, at the same time asking the non-winners not to lose heart but to do patient work which will spur them on to victory. He then made a very nice and interesting speech, of which wholesome advice to students formed the bulk, with some humorous autobiographical references.

Board High School Students' Literary Association, Tiruvalur.—The above Association celebrated its anniversary early this month when M.R. K. V. Suriyanarayana Aiyar A.V.L., B.A., B.L., of Tanjore, delivered an address on *A student and his ideals*, with Rao Bahadur N. Krishnaswami Ayyangar A.V.L., B.A., B.L., of Kumbakonam in the chair. This opportunity was availed of to unveil the portrait of the late Hon. G. K. Gokhale, which was presented to the school by one of its old pupils. The Secretary's annual report being then read, the lecturer delivered his address lasting more than an hour in the course of which he drew a picture of the ancient system of education under a Guru and the different stages in a Brahmin's life. He pointed out the necessity of ideals for boys and that virtuous character was the bedrock on which the edifice of citizenship ought to be built. To sum up he dwelt on the *selflessness* which actuated the illustrious men of the country whose ideals were worthy to be followed. The Chairman, who rose among deafening cheers, in the course of his eloquent address referred to the utility of associations of this type and laid the greatest emphasis on the importance of *Duty*. He pointed out the necessity of a harmonious relationship between the teacher and the taught and advocated more freedom for boys. Mr. V. Kodandarama Ayyar, B.A., L.T., an enthusiastic member of the staff, who by the way is the Vice-President of the Association, thanked the lecturer and the Chairman, who were garlanded. Immediately after a *tableau* of a few scenes from *Nandanar Charitram* was exhibited with unique success. The same night the Society put on boards Shakespeare's *The Winter's Tale* under the distinguished patronage of Mr. J. C. Stodart, Sub-Collector, Negapatam. The play was an admirable success and much credit is due to Mr. T. Rajam Ayyangar, B.A., L.T., the President of the Society and the Headmaster of the school.

BURMA.

Sir H. Butler on Education.—Sir Harcourt Butler in addressing the assembly at the annual distribution of prizes at St. Michael's School, Maymyo, on the 28th instant, said, he was informed he would not be expected to make a speech and had not, in fact, prepared any address for them. But since his arrival he had been asked to address a few remarks with reference to the report and he should not like to pass such report unnoticed and without comment, and it was not difficult for

him to speak on education. He congratulated them on the results of the year. By the results he did not mean the examination results. They were indeed creditable and must figure largely in the annual report. But if there was one thing which the educationists all over the world were trying, perhaps with halting footsteps but with a clear vision to attain, it was the abolition of the domination of examination over school teaching. The ideal was to judge the work of the school as a whole, not on the results of examination but with a view to tone, discipline and character-forming capacity of the place, the health of the pupils and all that went to make sound education fitting one for the struggle of life, and he hoped the day would come when the employers would look out not for the boys and girls who had passed good examinations but for the boys and girls who had secured a good record at a good school. This was the ideal, they could not yet hope to attain it, or to go faster than their educational machinery would allow them. But already in India in the case of English school for Indians, a great step forward had been made in lessening the importance of examination and in allotting large measures of success or failure of scholars to the record, regularly kept and periodically checked by the Inspector, of the life and ordinary form of work and general conduct and what he might call "school being" of a scholar. Holding views like these, and they were the views of thoughtful educational reformers, all over the world, they could readily imagine how pleased he was at certain features of the report. In the whole of this school what he would say to girls was "be proud of your school," because of the result largely of your training here they had done the right thing at the right time. Then he rejoiced greatly to hear that games had been made compulsory with the most successful result on the health and alertness of the scholars. This, again, was a very important matter. In school, hygiene occupies a foremost place, in character forming and in general education, and it was now generally recognised that one of the most vital needs of all school life, whether for girls or for boys, was the organised recreation. He was very glad also to hear they had made a good start with cooking and dress-making and practical education generally. Hitherto girls had been educated too much on the lines of boys. He did not say the results had been disastrous, but he said that thoughtful persons who understood the conditions of life under which the rising generation would have to live in India were deeply impressed with the importance of distinguishing the education of girls from that of boys, and of making that of girls more practical and useful. In the resolution on educational policy which was issued by the Government of India when he was the Member in charge of the Department of Education it was laid down as general principles to be followed that the education of girls should be practical with reference to the position which they would fill in social life and that it should not seek to imitate education suitable for boys nor should it be dominated by examinations, but special attention should be paid to hygiene and surroundings. In school life, the service of women should be more freely enlisted for instruction and inspection. Continuity of inspection and control should be specially aimed at. These principles were laid down for the education of girls generally. They applied to the education of girls at European schools. He hoped during the time that he was in Burma some real progress may be made in the development of these principles, to which he subscribed in spirit and letter. He believed it to be one of the greatest needs of European education for girls in India to-day to introduce

a system of record and to revise the curricula with a view to making them more practical. The work of kindergarten seemed to be progressing satisfactorily, and he hoped that when the stress of war was over, his friend Mr. Covernton, the distinguished Director of Public Instruction, would consider the grant which was suspended only for want of funds occasioned by the war. He had not seen papers himself, but he felt sure that Mr. Covernton would give to their requisition special attention at the first opportunity. Then what they had told him about the School Savings Bank, was very interesting and encouraging. He thought it quite clear that the rising generation would have to face conditions in which thrift would be even more necessary than it had ever been before. They would have to face a more costly standard of living, higher taxation and all those necessary curtailments of income which the great war and the demands

of improved social conditions involved. Hence the great importance of thrift at the present time. Their report was full of encouragement and hope to the educational reformer who looked at the dark deep jungle through which a way had to be cut, who was sometimes depressed at the thought of difficulties which lay before him and the strenuous labours which were required in order to get through. Not that he was at all pessimistic in regard to education in India or in this province. Far from it, he had seen much progress in the last 10 or 20 years, but when one thought of the little done and much to do, one was encouraged by the record to which one had listened that evening. His Honour hoped the next year would show a record of progress even more comforting and inspiring and he wished the girls a happy and prosperous and useful life.

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E. V. RIEU,

Manager.

BOMBAY,

June 1st, 1916.

The Educational Review.

The Hon'ble Dr. Devaprasad Sarvadhikary, Vice-Chancellor of the Calcutta University, in his Convocation Address to that University delivered on the 11th March 1916, and as usual in Convocation Addresses outside Madras, gave an interesting summary of the history of the University activities during the past year. One important event of the year was the setting of the scheme for the utilization of the handsome Hostel Grants to the University for Calcutta private Colleges. Plans and estimates for the Bangabasi, Ripon, Metropolitan, City and St. Xavier's College Hostels and the Mahomedan Hostel have been made and hopes are entertained that a Hostel for Buddhists and another for the students from the depressed classes will also be attempted to be provided soon. Land is being acquired for the hostels whose plans and estimates have been approved. In this Convocation Dr. Sarvadhikary made an interesting comparison of the grants made by recent Viceroys on account of the capital and recurring expenditure to the Calcutta University. Lord Hardinge gave over 45 lakhs, Lord Minto gave over 10 lakhs and Lord Curzon gave the Universities Act. But Lord Hardinge's most valuable gift is the new Education Member. "The selection of one of our most gifted and respected countrymen, with a long judicial training, and a longer training in the service of the country for the important post of Education Member of the Imperial Government has been received with great satisfaction. With a markedly broad outlook of things, Sir Sankaran Nair's firmness and strength of character, abilities and acumen have already

given more than an earnest or assured success."

Dr. Sarvadhikary then dealt with the significant increase in the number of students that seek higher education. "We had 12617 candidates for the Matriculation Examination as against the modest 244 with which we began in 1857. The number of candidates for the Intermediate Examination rose from 163 in 1861 to 6906 in 1915. Our would-be Bachelors were 13 in 1858 and 3499 last year.... Our B.A.'s and B.Sc.'s according to the calendar number 20075, our B.L.'s 7687 and our M.A.'s and M.Sc.'s number 3764. When one considers that many of these are dead, the survivors are not a very large number when you have to deal with a population of 98725879, out of whom, according to the last census figures available, 7938626 are returned as literate and 676814 literate in English, leaving out tracts from which our jurisdiction has been withdrawn since we first began to turn out graduates."

Dr. Sarvadhikary expressed himself distinctly on the cry constantly made by some people that India is being over-educated, schools and colleges are over-full and hence we must cry halt in our race for progress. He says, "At the same time stringent artificial measures advocated in some quarters for keeping down numbers would be no real solution. The normal method of coping with increasing numbers, would, therefore, be a proportionate increase in the number of colleges and of duplication of classes in existing colleges with proper limitations... Infinite, patient, sympathetic and self-sacrificing efforts will be needed to cope with the situation if we are to profit by the progress that has been so excellent a start

Indians in the Educational Department by which a high qualified Indian is often given less than one-third of the pay which a third-rate European Professor gets, though the former does the same work as, and that, sometimes much more efficiently than, the latter. But we cannot understand what bearing this has on indiscipline in colleges, more than that all cases of injustice in the public administration are bound to cause discontent in the minds of elders, an echo of which cannot help reaching the minds of students in colleges. The Government of Bengal, like other Indian Governments have taken refuge in the fact that the Public Service Commission's report has not yet been published and brushed aside the recommendations of the Committee on this point. The sooner a "real grievance" in the Educational as in other departments are removed the easier will be the administration of the country and we cannot commend the wisdom of putting off urgent reforms on weak pleas. "In the fifth place," the Committee remarks, "we cannot refrain from mentioning the harm done by the occasional use of tactless expressions by certain European Professors in addressing students." The Government of Bengal which so readily published an admonition to the Press regarding the inadvisability of a public discussion of grievances of students had no word to say on this point, but we fear the "tactless" references of European Professors to the real or supposed defects of Indian civilization, Indian character and Indian talents are the primary cause of all disturbance in Educational institutions, and all Professors that display a haughty sense of racial superiority and do not display a lively, loving sympathy with students ought to be dismissed the service.

If the European professor cannot create in the minds of his pupils a feeling of respectful love for his character, he is not fit for his post. The Committee cites a few cases where the professors concerned were positively rude, but remarks that if a healthier tone had prevailed, the students would have seen the want of ill-will behind the rude remarks; we, however, feel bound to remark that calling students "barbarians," "wild beasts," "monkeys," "coolies" merely shows that the Professors concerned were too ill-bred to be fit for their positions. After the mention of these cases we can understand why the Calcutta students were so touchy as the Committee points out. If a Professor who is the flower of Cambridge or Oxford culture cannot behave like a gentleman, is it any wonder that boys break out into evil ways? Students that take the law into their hands ought, of course, to be meted exemplary punishment but the causes that led to it should also be unhesitatingly removed. The Committee, after discussing the causes of the troubles, proceeds to make twelve recommendations with which it is unnecessary for us to deal, as also with the Government order thereon, for, in the latter, the root of the trouble is scarcely touched on, but merely palliative measures are suggested. The order says that "the Governor in Council believes that the Committee have accurately summarized the disturbing influences which have been at work and desire to express his general concurrence in their findings." Besides this general acquiescence there is little in the published order to show what the Government intends to do to prevent a recurrence of such deplorable incidents. Let us, however, hope that steps have been or will be taken to see that the causes of such trouble will not exist,

that the better students will, in future, have cause to learn to love their professors and perverse ones will have no chance of leading them astray. A verbatim report of the Committee and the Government order thereon is published elsewhere in this issue.

The Provincial Educational Conference met this year at Madura on the 19th and 20th May. We regret that the attendance was poor. Very few schools of the Presidency were represented; we learn with regret some of the educationists of Madura were conspicuous by their absence. It is also to be noted that not a single European educationist was present. This points to the existence of the total want of *esprit de corps* among the gentlemen engaged in educational work and explains the lament of the President of the Conference that "As things now go in India, we educationists have but very little in the body politic generally as well as in the administration of our Department." Unless our professors of colleges and masters of schools take themselves seriously, it is difficult to expect others to respect them and they cannot expect to wield any influence in the public life of the land. The Conference was presided over by Mr. P. T. Srinivasa Iyengar, M.A., L.T., the veteran educationist of Vizagapatam. His inaugural address was characterized by an outspoken criticism of the recent educational policy. The most important question discussed by the President was "the position of linguistic studies in our educational system." He urged that the prominence given to language studies in our schools and colleges was a relic of mediæval barbarism; pointed out that even in England the scientist

has no influence on public life but "has to remain apart, a member of a special caste, a kind of scientific Brahman, proud and poor and with little influence in the making of contemporary history." We fear Mr. Srinivasa Iyengar, notwithstanding his thirty-five years of educationist experience is a bit of a visionary; the supersession of linguistic studies by scientific studies is scarcely within the range of practical politics. The Government that persistently resists the demand even for experiments in compulsory elementary education on the score of want of funds can never find funds for the starting of costly science schools in the place of cheap linguistic ones. One object at least of English education in India is to train pupils for clerkships in Government offices, the Railway and other private concerns and scientific studies or literary studies, it is all the same for a clerk, so long as one can learn to read and write English.

The next question dealt with by Mr. Srinivasa Iyengar is the introduction of teaching in the vernaculars of science subjects. The demands for the use of the vernaculars as the media of teaching in schools is every year increasing in intensity. Even pro-consuls and others in responsible positions have begun to speak of the demand as reasonable. The only difficulty in the way of the adoption of this principle of teaching is this that examinations have to be conducted in English only and that because examiners have no command of the vernaculars. If vernacular examinations be substituted for English examinations in knowledge subjects there is no reason why this urgent measure of reform should not be given effect to. Mr. Srinivasa Iyengar next referred to the necessity for clearly separating the Pass

course from the Honours course. As this is a thing we have often urged in our columns we need not discuss it now. Mr. Srinivasa Iyengar next criticised the management of the S.S.L.C. scheme. We consider his criticisms sound, but regret he has not given any positive suggestions as to what ought to be done to avoid the evils he has so ably pointed out. Mr. Srinivasa Iyengar's discussions of Elementary Education and the Grant-in-Aid Code were, in our opinion, too brief. We wish with his long experience as the head of an Aided College, he had discussed the Grant-in-Aid Code and its defects in detail and offered his views about how to improve it. These criticisms apart, we regard the Presidential Address as a candid and very interesting utterance of one of the best of our Indian educationists and hope that the powers that be will give to Mr. Srinivasa Iyengar's views their sympathetic consideration.

The resolutions of the Conference were mainly but a repetition of the resolutions of previous years and do not require any special criticism by us. Those about the S. S. L. C. scheme contain the considered opinions of experienced Headmasters, who alone can give an authoritative opinion on the defects noticed in the actual working of the scheme. We hope the S. S. L. C. Board and the Director of Public Instruction will see their

way to accept the proposals made. Mr. P. A. Subrahmanya Iyer moved the resolutions about the Grant-in-Aid Code and proved to the hilt his case that Missionary institutions are given special "protection" in the matter of grants. This is a well-known grievance which has become accentuated during a recent Directorate; and we fear Indian educationists should organize themselves into a powerful body and agitate persistently till this grievance is removed. The resolution about the conscience clause passed both by the Political Conference and the Educational Conference contains a demand supported by a growing volume of public sentiment, a sentiment which the Government will soon find it will be impossible to ignore. Most of the other resolutions were re-assertions of old ones, but before we close we feel bound to give prominent mention to the demand for the recognition of the rights of Headmasters to be members of the Committee of Management of Schools and of Assistant-masters of School Councils. We close with wishing that the next Conference at Cuddalore will be better attended and that gradually educationists will learn to combine and agitate till they come by their rights. Mr. Srinivasa Iyengar's Presidential Address is published in full elsewhere in this issue.

The Educational Review

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FIRST AIDS IN THE LABORATORY.

from complete and the remedies suggested are subject to alteration.

THE war with the consequent appalling suffering has turned the eyes of non-combatant civilians to the accidents of ordinary life and to a study of how best to minimise the sufferings attendant upon them. With this object in view, many a series of popular lectures have been delivered at different places from time to time by medical men, on first aids in accidents. It is not very rarely that a science teacher is called upon to render first aid in the laboratory. The laboratory has its own list of accidents ranging from a simple cut to swooning, due to electric shocks or the inhalation of poisonous gases.

As one reflects over the types of accidents in a laboratory, one finds that though the usual accidents occur there, there are also others peculiar to the laboratory. A serious attempt must therefore be made to make a study of them with the object of suggesting suitable remedies, whose immediate application may save much suffering.

The list of such accidents detailed below is far

COMMON ACCIDENTS.

Cuts (light and severe) and bruises are of fairly common occurrence in the laboratory. These are mostly due to pieces of broken glass thrown carelessly on the flooring. The unprotected feet of those who work in the laboratory are a cause of some anxiety to science teachers. Careless work on the part of some students, such as insufficient attention to polishing the sharp edges of glass tubes, often cause light cuts. Smith and Hales say, 'cuts must be washed in running water and dressed with boric acid or with lanolin containing 2 per cent. of boric acid.'

Burns.—The same authors continue, 'burns, whether caused by contact with hot objects, by acids or by corrosive liquids like bromine are rubbed gently with a paste of sodium hydrogen carbonate and water. All burns save the slightest must afterwards be dressed with an aqueous solution of boric acid (half-saturated) to prevent infection.'

Stains due to chemical substances on clothing or on the body form a class of accidents peculiar to the laboratory.

Acids.—"When any acid gets upon the clothing, ammonium-hydroxide solution must be immediately applied."

Stains, due to silver nitrate, on the hands as well as on clothing are common in work in the laboratory. Miller says, "The black stains of argentic nitrate may be removed from the hands or from linen by the employment of a strong solution of potassium iodide. Potassium cyanide is still more effectual, but some danger attends its use."

Iodine.—"Stains upon the fingers caused by iodine may be removed by rubbing with sodium thiosulphate (hypo) solution."

Stains on clothing by coloured chemicals, such as ink, which cannot be got rid off by mere washing, can be removed by bleaching with chlorine water. When the stain is removed sodium thiosulphate solution is immediately applied to destroy the injurious effects of chlorine, which otherwise persistently adheres to the material of the clothing.

Mercury on gold.—It is not infrequently that a teacher is called upon to remove mercury which adheres so readily to the bright surface of gold bangles, rings, &c., that our students wear. In many experiments in Physics such as where a thermometer has to be used and an accidental breakage occurs, in experiments on the barometer, in the amalgamation of zinc plates of batteries, &c., the mercury adheres at a careless moment to the gold jewels worn by a student. The treatment which the jewel should receive depends upon its nature. If it is free from joints, it can be heated to a high temperature and the mercury volatilized, but the easiest method in the laboratory is to immerse the amalgamated portion of the jewel in nitric acid of a particular concentration. Mercury alone dissolves in the acid. The surface is afterwards cleaned by washing soda,

Inhalation of poisonous substances in the gaseous state is an accident, again peculiar to the laboratory.

Halogen Vapours.—Torrey in his 'Elementary Studies' says 'All work in which there is an evolution of chlorine, bromine or iodine should be performed in a well-ventilated room or under a good hood.'

Avoid so far as possible inhaling the vapours of any of these substances. If any is inhaled accidentally, the quickest relief is found in inhaling the vapour of alcohol.'

Stockhardt has the following on the same subject:—"Chlorine acts as a poison on being inhaled. Hence care must be taken not to inhale it while preparing it. For greater security, pour drops of alcohol and ammonia upon a cloth and wave it frequently in the air; the chlorine contained in the air will be so altered that it will lose its injurious properties."

Sulphuretted hydrogen.—"The inhalation of this gas is detrimental to health. Hence care should be taken to avoid it. When experimenting with it, it is best to do so where there is a pure circulation of air."

Hollmann and Cooper in their 'Inorganic Chemistry' recommend the inhalation of very dilute chlorine as an antidote.

Ammonia.—Ammonia breathed in a concentrated form is fatal to life from its irritating effects on the lungs. In a more dilute form it is a highly valuable stimulant.

Sulphur-dioxide.—"Has a pungent, suffocating odour. It is poisonous causing death when inhaled in any quantity, giving rise to bad symptoms even in comparatively small quantities."

Likewise, Carbon monoxide and Arsine are other examples of highly poisonous gases.

I have attempted to illustrate here only a few cases where a teacher may be called upon to render first aid. A. Smith in his 'Teaching of Chemistry' (American Teachers' Series) devotes an entire section (pp. 125—7) to the subject of 'Emer-

gencies,' which affords valuable information to those interested in the subject. As science teachers are not trained to any reliable extent in medicine, it will be a great advantage to them, especially to those as are lacking free access to books, to have a thorough knowledge of the various kinds of accidents likely to occur in a laboratory and the easiest means of effectively attending to them.

In this connection, I may remark, that teachers of science will be much benefited, if the University or the Government will arrange for a course of lectures, to be delivered by a suitable medical man, on the subject of first aids, with special reference to life in the laboratory. From such a course, it will be easy for them to draw up a chart on the subject, which may be hung in a prominent part of the laboratory, side by side with a medical chest, where the necessary medicines can be stored up.

V. N. VISWANATHAN.

In Active Preparation.

COLLEGE ALGEBRA

*A Text-book for the Intermediate and
B.A. Classes*

BY

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Srinivasa Varadachari & Co., Madras.

EXPERIMENTAL VERIFICATION OF OHM'S LAW.

OHM'S Law states that in any conductor at uniform temperature the current is directly proportional to the potential difference between its ends. Now, the experiments proposed in many of the text-books on Electricity for the verification of Ohm's Law are either too difficult to be understood by elementary students, or are not very convincing in their results to beginners in Physics. The experiment given in Hadley's "Magnetism and Electricity for Students" (Chap. XVII, expt. 73) in which the E.M.F.'s of one, two, three.....standard cells are successively balanced against the potential differences of a fixed length of wire carrying currents suitably adjusted is not well-adapted for an elementary student. It will be clearly understood only after a study of the principle of the potentiometer. Further the experiment assumes the possession of an adjustable rheostat, a luxury rarely available in most of the High Schools, and in some of the Colleges.

One experiment in common use is to connect one, two, three...constant similar cells successively in series with a high resistance and a tangent galvanometer, and observe the deflections of the galvanometer in each case. Then the E. M. F. $\div$ the current is proved to be the same for all the cases. The chief defect in this experiment is that the circuit is not the same for the various cases. In the first arrangement we get only one cell in the circuit, in the second two cells, and so on, though the galvanometer and the high resistance remain the same in the circuit. No doubt the teacher knows and explains to the students that the resistance of the battery is negligible in comparison with that of the galvanometer and the high resistance in the circuit, and thus for all practical purposes the circuit remains the same. But the idea of a quantitative value of resistance follows only from Ohm's Law, and thus the

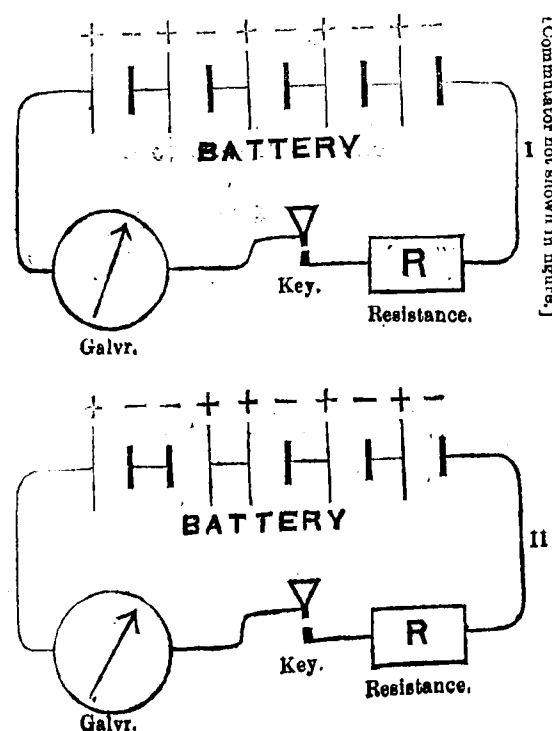
introduction of a quantitative resistance is premature at this stage. Further the student himself has not investigated the resistance of cells at this stage, and the assumption that the resistance of a battery of a few cells is comparatively low loses the conviction brought about by self-investigated results.

Another experiment in common use, by which Ohm's Law is indirectly proved, is to connect the poles of a constant battery in series with a tangent galvanometer and successive resistances of different values, and to observe the deflections of the galvanometer in each case. Then it is proved that the current multiplied by the resistance is constant for all cases. This experiment also suffers from the same defects as the previous one mentioned.

I propose the following experiment for verifying Ohm's Law, and wish to be pointed out any defects in it by the readers of this review. It is much appreciated by my students for its simplicity, and excellent results have been got even with apparatus not intended for delicate work. The experiment itself is quite simple, and is only a modification of one of the experiments described above. The principle applied is that, if two similar cells are connected in series, reversed, then the total E. M. F. is zero, since the E. M. F. of one cell is counterbalanced by the E. M. F. of the other. This may be verified by connecting the poles of this battery to the terminals of a galvanometer, and observing that there is no deflection. To proceed to the experiment itself—a battery of five Daniell cells, connected in series in the usual manner, has its poles connected in series with a tangent galvanometer, a tap key, and a resistance of suitable value. (A resistance box will be better, if available. The word, resistance, is here introduced for the demonstrator and not for the student, who need not know now what resistance is, and who has only to see that the circuit is not altered for each set of experiments.) It is better to introduce

also a commentator, if available, so as to get deflections of the galvanometer in both directions. The apparatus having been set up, the key is pressed and the deflections of the galvanometer are observed for both directions of the current. Then one cell in the battery is reversed with reference to its poles, i.e., its positive terminal is connected to the positive terminal of the cell to which the negative terminal of the former cell was previously connected, and its negative terminal is connected to the negative terminal of the cell on the other side. The resultant E.M.F. of the battery, instead of being five times the E.M.F. of a single cell as before, is now only three times the E.M.F. of a single cell, since two cells in the battery counterbalance each other with reference to their E.M.F.'s. The key is pressed again and the readings are obtained as before. Next, two cells are reversed so as to get an effective E.M.F. of that of one cell, and similar readings are then taken.

The arrangement of the circuit for the three cases is illustrated below:—

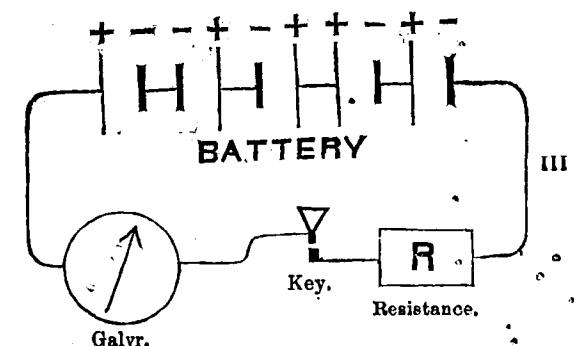


SOME ASPECTS OF DR. ARNOLD'S MISSION.

THE sage of Chelsea observes in his 'Life of Stirling': "I have remarked that a true delineation of the smallest man and his scene of pilgrimage through life is capable of interesting the greatest man." In the light of this statement, it is superfluous to mention that any description of the striking characteristics of Dr. Arnold—"a great soul, zealous, beneficent and firm—must be a topic of universal interest, and especially of significant value to the teaching profession. So I propose to show briefly how he carried on his life's work so as to shine as a beacon of light to many an erring brother. Among the influences that shaped the early life of Dr. Arnold, the three most prominent were (i) a happy, intelligent and well ordered home, (ii) the great political and military events in connection with the Peninsular War, having for the central figures heroes like Napoleon Bonaparte, Nelson and Wellington, strong enough to rouse the youthful imagination, (iii) early experiences of ships, and warfare contributing towards the formative influences of his life. In general it may be said that the environment of his early years and his outfit on the intellectual and the spiritual side stood him in good stead when he was chosen for the Headmastership of the Rugby School in December 1827. His eminent fitness for this onerous duty was marked in more ways than one for the following reasons:—

(i) Having enjoyed the comforts of a happy home, in humble station of life, he was free from any temptation to be idle or extravagant and he was quite alive to the fact that patient and strenuous work was the only road to any eminent future.

(ii) Though lacking the warm and steady support of patrons or the genuine and constant help of influential friends, yet he was allowed to breathe the atmosphere of a public school and to form his own friendships there. His residence



If E be the E.M.F. of a single cell in the battery, and $\theta_1, \theta_2, \theta_3$ be the mean readings of the galvanometer for the three cases, then it must be proved that $\frac{5E}{\tan \theta_1} = \frac{3E}{\tan \theta_2} = \frac{E}{\tan \theta_3}$, i.e., $\frac{5}{\tan \theta_1} = \frac{3}{\tan \theta_2} = \frac{1}{\tan \theta_3}$, since current is proportional to the tangent of the angle of deflection.

The experiment may be varied by altering the circuit (using different resistances in the circuit) and taking a set of readings for the three cases as above. Three cells may be used in the battery instead of five, but then we get only two different E.M.F.'s.

It is well to use a solution of zinc sulphate with the zinc rod instead of dilute sulphuric acid in the Daniell cells, and solutions of the same strength must, of course, be used for all the cells.

T. V. VENCATACHARI.

at the Winchester Public School strengthened in him that feeling of reverence for everything ancient and noble and that pride in a great intellectual inheritance which are potent factors in the education of a youth.

(iii) As his special tastes were directed towards History and Language and also to ethical and political problems, his studies were precisely such as were intimately related to the profession in which the formation of character is regarded as more important than the communication of knowledge.

(iv) His religious beliefs and convictions had been the outcome of experience of the most trying nature. This fact accounts strongly for the whole-hearted sympathy with which he entered into the difficulties of the young and earnest inquirers. So, by this reason also, he was fully qualified for the office of a teacher and a guide.

GENERAL EDUCATIONAL AIMS AND METHODS.

Arnold's merit might be said to lie in: (a) he never mistook means for ends, (b) he constantly kept in sight the goal of true education, (c) he would not attach undue importance to conventions and usages, which did not help to the attainment of the end in view. His cardinal principle was that the business of the schoolmaster was not to impart knowledge but to create a thirst for knowledge, besides directing the means of gaining it. Instead of inventing new methods, Arnold took care to put new life, freshness and meaning into the approved methods of teaching. The inimitable feature about his system was the breathing of a new spirit, one of enthusiasm, of a deep insight into the mental and moral nature of his scholars, besides bringing to bear his own introspective knowledge in reference to those studies which enriched his mind and morals.

In common with all true teachers, he had greater faith in questioning than in mere didacticism. The essential point about his method was

based on the principle of awakening the intellect of every individual boy. His explanations were quite brief, just sufficient to remove the difficulty and no more. His questions were so put as to direct the pupils' attention to the true point of every subject. In the case of advanced boys, he tried to cultivate in them the habit of expressing themselves with facility based on a sound understanding of the underlying principles, besides the habit of assiduous collection of facts. He would say to them 'you come here not to read, but to learn how to read.' His teaching was conspicuous for its thoroughness. To make teaching truly effective, a teacher must, in addition to his knowledge of the subject or text-book, treat it in all its aspects, must completely equip himself with all auxiliary information as may serve to illustrate the matter under discussion from various standpoints.

He had a strong sentiment that intellectual life should be dominated and controlled by moral and spiritual influences.

Religious instruction.—Arnold was a remarkable example of the lasting good of a schoolmaster who can adequately discharge the duties of the clerical office. The advantages of such a union of functions are twofold. Firstly, parents repose greater confidence in a teacher who combines the scholarship and skill of the profession with the dignity and weight of the clergyman's office. Secondly, unquestionably, great unity is given to the whole discipline, apart from the enhancement of personal influence. It may be said that he never aimed at theological teaching as such and that he made no attempts prematurely to form the opinions of boys on controversial religious subjects. By means of his sermons, he made efforts to arouse in the boys reverence for sacred things and, above all, for the character and example of Christ; to cultivate in them the habit of veracity and the love of truth for its own sake; to encourage diligence in the performance

of school duty and right aspirations after future honour and usefulness.

Disciplinary measures.—The common belief during the times of the ancient public schools was that the rod was the emblem of discipline and the characteristic symbol of magisterial authority. Dr. Arnold had great faith in the efficacy of the birch and so he retained its use in the case of the younger boys.

He kept it as much as possible in the background confining it chiefly to moral offences, and he regarded it as wholly unsuited as a penalty for intellectual dullness or weakness. The thought uppermost in his mind was that *sin it is that degrades man and not the punishment of sin*. He sought to remove the worst and most obstinate usages by degrees. He knew better than any one when to look and when to see nothing. Whenever he found that a boy's influence tended towards the degradation of the public opinion of the school or to the serious detriment of his companions, he would resolutely expel him at once. As he claimed a close knowledge of each boy, his appearance, his habits and his companions, Arnold gained a marvellous influence over his scholars.

Ultra-professional duties.—To obtain a true insight into the great significance of Dr. Arnold's life, we must take into account the pursuits and tastes which he had outside his profession. A life entirely devoted to the discharge of professional duties is no doubt an incomplete life. If there be anything to sweeten and cheer the life of a schoolmaster, it must be the pursuit of some study or employment for its own sake, having no immediate or visible relation to his daily avocation. In understanding Arnold's educational work, an enquiry into how he employed his leisure hours or what his relations to the larger world were, should be made. To check any tendency to professional narrowness and pedantry, he adopted *foreign travel* as one of the most effective and delightful expedients and he felt highly refreshed

and invigorated by it. As a proper means of enlarging the sphere of his own interests beyond the walls of the school-room, he gladly undertook the duty of making himself acquainted with the condition and the feelings of the poor. He foresaw the dangers of isolation and selfishness incident to the life of a scholar and he held that the valuable part of education was a thorough knowledge of the needs and feelings of the poor and the unprivileged classes, who, in the absence of the possession of intellectual advantages, had a reasonable claim for the same from those who had them. This attitude became stronger in him as his experience widened by contact with the rich and the peculiar temptations of life. To counteract the narrowing influences of his duties as a schoolmaster, Arnold lectured to Mechanics' Institutes at Rugby and Lutterworth, he frequently preached sermons to village congregations, he published tracts advising the people what they should do on the appearance of cholera. Besides his political and religious contributions to the contemporary periodicals like the 'Englishman's Register,' the 'Sheffield Courant,' the 'Penny Magazine,' he took the keenest interest in carefully devising methods whereby he could minister to the religious and material advancement of those around him, and he unflinchingly carried on his life's work against all odds so that the son's tribute to his father in these lines is no doubt richly deserved:—

Langour is not in your heart,
Weakness is not in your word,
Weariness not on your brow.

Bearing of extra-scholastic interests on class-work.—The power that a schoolmaster can exert on men and things is largely determined by the pursuits and tastes which characterise him out of school and by the nature of his outlook into the life the pupils are about to engage in. His love of foreign travel was useful to illuminate his lessons, to increase his descriptive power besides helping the boys to know something of

the world and of their own place in it. His historical imagination enabled him to arouse their sympathies for the mighty men of old and their lofty ideals and aspirations. His unremitting toil for knowledge kept his mind fresh and receptive, made the life of scholars more attractive in the eyes of the boys. His profound religious nature and his solemn sense of duty coloured his thoughts and acts and gave those who came within his sphere a sense of the seriousness of life and of the responsibilities of Christian manhood.

Estimate of his work.—Arnold's conception of a school was that primarily it should be a place for the formation of character and secondarily a place for learning and study as a means for the attainment of this higher end. A schoolmaster in his view, should make discipline and guidance the prominent features of his calling and not the communication of knowledge. He unfalteringly sought to develop in his pupils the love of righteousness, the sense of duty to others, and the scorn for everything little, untruthful or base in action. Thomas Carlyle who was deeply struck with the high moral atmosphere of the Rugby School during Arnold's days characterised it as 'a temple of industrious peace.' Thus Arnold's life reveals to us that scholarship is no doubt but a part and not necessarily the highest part of the equipment of a teacher; and that strong will and force of character are great and indispensable endowments for a teacher no less than physical activity and abounding hopefulness. With such a lodestar and other similar luminaries to guide us onward in the path of our duty, we should be failing in our trust if we do not garner up in our hearts the moving principles of his mission and make honest attempts to realise the attainment of the ideals he set up for himself and his brethren. May we live up to the standard of glorious living pictured to us by the poet in the thoughtful lines:—

In small proportions we just beauties see,
In small measures life may perfect be.

M. KRISHNASWAMI Aiyar.

THE SCHOOL-FINAL SCHEME: HOW IT HAS STOOD THE TEST OF OUR EXPERIENCE.

WE have been at the School-Final Scheme for the last five years and it is time that we judge of it in the light of our experience. It may be contended that five years' experience in reference to a big educational scheme is too short a period for any to make any definite pronouncement upon. The public at large may take time to give a verdict as it did with the Matriculation many years after its introduction; but the teachers are, I believe, in a position to sufficiently testify to the merits and defects of the scheme from their experience, short as it is. It may be also said that this subject has been so sufficiently threshed out both from the platform and the press, that any further discussion on the subject is simply superfluous and harping on the same string. But I view the matter a little differently. In my opinion, there cannot be over too much discussion on a scheme or policy affecting the welfare of so many thousands of our school-going children. In education, as in other fields of politics, we ought not to be making hasty experiments. Before one scheme is scarcely begun and fully tried another must not be immediately forged. It is this habit of our public that is responsible for many of our evils. I remember vaguely the circumstances under which the School-Final Scheme was ushered in. There had been the Matriculation Examination conducted by the University, dominating all school-life and school-work. The University men true to their high ideals of culture set forth as their aim in secondary education that there must be a harmonious development of all the faculties in school-going children, they must know the rudiments and elements of all the important sciences, they must have an enlightened understanding of their environment and that all specialisation must be based on a sound general basis and consequently must be resorted

to only in the College classes. These high ideals were good, but when rigorously enforced in practice, they inflicted great hardship in course of time on the school-children. The curriculum became soon over-crowded. All important sciences were introduced one after another together with English and Vernacular. The syllabus in each subject became more and more elaborate. The University public examination, the only test then prevailing both for entrance into the University and for Government service, became more and more severe and the results continuously for over a decade were horribly poor. The examination was therefore eventually and justifiably too, considered a monster slaughtering mercilessly many of our innocent boys (I believe they were really innocent and not negligent) and sending out thousands of students every year with the hall-mark of failure and shame stamped on their faces, who owned life only with shame. Even the educational value of the University-ridden secondary education was questioned. An opinion prevailed and it was later on confirmed by the verdict of the Matriculation Education Commission that the then system of education conducted to a great extent to the greatest among the educational evils namely cram:—that morbid condition of the mind in which nothing was assimilated and all kinds of stuff existed in an unassimilated and undigested condition, consequently injuring the brain without in any way benefiting the owner of the knowledge, where confusion existed without any clearness of thought or judgment, and all this was rightly attributed to the irregularity of the school-work and the overcrowding of the school curriculum. In these circumstances, it was therefore no wonder that a great hue and cry was raised everywhere by the public, the press, and the platform against the evils of the monstrous Matriculation Examination. The Government of India therefore thought it was high time to set up its own effective control over the

secondary education and removed from the field all domination by the University and as a result of the attempt of the Government to remedy the evils of the past, the present S. S. L. C. Scheme was formulated. This change in the Secondary School Educational Policy was adopted all over India and the S. S. L. C. is no rare invention of our Presidency though there are certain exceptional and objectionable features here which are not to be found in the S. S. L. C. of other provinces of India.

The change, though largely the result of our public opinion, provoked great discussion at the beginning. Strong suspicions were entertained against the scheme even at its very commencement. It was doubted with great sincerity and on reasonable grounds whether the Government would uphold the high ideals of the University, whether the standard would not be ludicrously lowered, whether specialisation one of the features of the new scheme would not work harm on the young boys, whether school record another feature of the S. S. L. C. now rendered worse than useless by the recent Senate's resolution but formerly considered somewhat potent in deciding a boy's fate would not be abused by the secondary teachers, whether the want of any definite pronouncement on the failure or success of the student in the S. S. L. C. certificate as it was the case till the last year was really desirable.

It is time that we take a retrospective view of the working of this scheme and examine in the light of our experience the hard criticisms originally aimed at it.

Applying to it the sure test of time, we are now in a position to confidently assert that the system on the whole proved somewhat successful. For the first four years, some general satisfaction seemed to prevail, but this year a great discontent seems to have arisen on account of the University circular now again modified in due deference to the public cry laying out rules

for the moderation of marks, and for the promotion of the students to the college but this action of the University has nothing to do with the School-Final Scheme and moreover it is the result of the loud cries both on the platform and in the press against the irregularities in the matter of promotion and the abuse of the discretion by the Principals leading to the overcrowding of the University classes and the consequent slaughtering of the innocent or more properly the negligent and the incompetent in the Intermediate Examination. The public cried for a standard and for uniformity and hence the Syndic circular which, when it was out, was protested against as being unduly severe and unjustifiably and arbitrarily complicated. Thus the "சீர்தன்மை" as one of the Principals of a Second-grade College characterised the S. S. L. C. condition of the last year was largely the result of our own outcries. In due deference to the public protests against the Senate circular, it was modified again at the last Senate meeting and a resolution was rushed through laying out an alternative standard or system for the promotion of students to the College and this again is only a temporary measure. In these circumstances we must beware of sending in any irresponsible resolution based on momentary impulses.

Now to go back to our scheme, besides opening every year the eagerly sought for portals of University to many of our young men, to the majority of whom in very many cases quite undeservedly and unjustifiably they would have been, in the relentless old regime closed and sealed, it has also relaxed to a great extent the pressure on the brain-work of our school-going children, by limiting the compulsory portion of the curriculum and thereby dispensing with the necessity for cram. Further the new scheme has made ample provisions for the varying natural aptitudes, tastes and predilections of children in the shape of a number of optional subjects. The idea of a school record is happily well-conceived

tending to promote zeal and regularity in school-work and better discipline in school room. In great contrast to the bad habits that prevailed in the old regime, namely, great laxity of work at the beginning of the year both on the part of the pupils and the teachers, and great intensity or pressure of work as the year advanced ending in feverish excitement and hurried cram just a few months before the public examination, there is now the work distributed uniformly throughout the year, and year after year continuously for three years. There is more attention paid by the teachers to their school-work and to the boys. There is more supervision exercised by the Headmasters over the Assistants. Instead of one test at the end of the year, a multiplicity of tests have been introduced and errors of teachers' judgment in regard to boys' minimised. In fact the true spirit of the School-Final Scheme is to attach greater value to the school-work than to the public examination at the end. By some the school marking is considered a burden and it is also said to be interfering with efficient teaching. To me it appears, it cannot interfere with the efficiency of teaching; for questioning there must be both by way of testing the preparation of boys and also to rouse the interest of the boys in the subject-matter taught. The Secondary school teaching cannot dispense with questioning but the difficulty here is to give marks to the answers which require great efforts of judgment to be exercised every now and then. The questions also if they are intended for marking must be carefully prepared at home and in these ways with a number of written examinations, weekly written exercises and practical work all coming in for valuation, the quality and the quantity of the teachers' work has been in the new scheme considerably enhanced (and it is a great pity) without any proportionate increase in the salary or at least in their leisure but of these I will say more later on. But the hardship of the teacher cannot be argued against the merits of the system. The system moreover care-

fully abstained for the first four years from making any pronouncement on the failure or success of boys, the record book or the certificate being returned to its owner with schoolmarks and remarks, and the marks obtained at the public examination. But last year the system of moderation was introduced, the moderation being based on the rules framed by the Syndic. If any moderation of marks be found necessary by the Syndic for admission of the S. S. L. C. boys in the University, let them publish a separate list of boys fit for promotion into the University. (By the way as a result of the last Senate meeting they have decided to publish such a list) but I do not see any reason for entering the moderated marks in the S. S. L. C. record books, not only of students seeking admission into the University, but also of others not doing so. This, I believe is going against the spirit of the School-Final Scheme and unnecessarily and unjustifiably subordinating the scheme to the needs of the University.

The true spirit of the School-Final Scheme is to lay great stress on the school-work and schoolmarks. Properly speaking there must be no public examination at all at the end. There must be full freedom for the schools to send out its own students to enter life with its own diplomas and certificates. Each school must be a small University by itself and this idea was beautifully set forth by one of our enlightened and leading members, Mr. Devasikamoni, Headmaster, S. P. G. High School at the last meeting of the Teachers' Association. That is no Utopian suggestion and it is one quite in keeping with the true spirit of the S. S. L. C. Scheme. Perhaps with the present educational policy of the Government leaving education as far as possible in the hands of private agencies, resting content with the annual inspection of a flimsy character, the Government may not be persuaded into giving that full freedom to each school and since they have taken this as a test for Government service, they feel perhaps compelled to institute a public examina-

tion in common for all schools but the public examination, due so far as I conceive only to the necessity of the Government, serves no real educational purpose. If the Government has no trust in the genuine work of the Secondary schools, as they are at present managed, let it completely departmentalise the secondary education. The departmentalisation of the Primary and Secondary education will be, I think, a step in the right direction in view of the welfare of the teachers whose tenure of service at present in the hands of the private bodies is far from stable. I am at the same time aware of the many objections to this.

Leaving the question of the public examination whose educational value and whose place in the S. S. L. C. scheme, I question, the S. S. L. C. scheme has, I believe, another ideal which is not realised by the public at large though the Government plainly set it forth at the beginning. It is the idea that the S. S. L. C. is meant more especially to equip the majority of the boys not fit for the University education with all necessary training to start in life immediately after the school course. It is with that idea I believe that the Government have been lately issuing a circular to the Headmasters that the school course must not be unduly subordinated to suit the few boys seeking admission into the University. The Government think and I believe that their wish is the father of this thought that a large majority of students ought not to go to the University. To some extent this is a justifiable idea, but it has not yet been grasped by the public and parents at large. It is the ambition of every parent whether he is rich or poor, whether his boy is intelligent or dull that he should enter the University and take the degree which is still credited with the potentiality of placing the boy very well in life. Hopes are often disappointed after enormous cost often ruining families and driving the boys to despair and madness. The parents must know that only very few can afford to enter the University

and that the University diplomas should be sought for their intrinsic educational value and not for the high positions they will secure. As long as this idea that every school-boy must go to the University prevails in the mind of our public, so long no School-Final Scheme can work with success in this country and all such schemes will be turned into college-entering schemes. The boys have no idea of equipping themselves immediately for life and it is only after entering the University by hook or crook and exhausting all mental and material resources that they turn to some technical subjects to qualify them for life. At school very few boys resort to technical subjects and I know (technical sections in many schools are going down in strength year after year.) Very few boys have the idea of finishing all studies with the secondary education. This pernicious idea together with the want of faith of many of our people in the capacity of our Secondary schools to fit their boys to ordinary walks of life as agriculture and trade, it is this that is at the bottom of the failure of the School-Final Scheme. The scheme is also partly responsible for this. Many subjects of high practical value have not been included and all subjects are taught in a foreign language and not in the vernacular or in the vernaculars of the people. I am therefore constrained to conclude that there is a good deal of misapprehension and ignorance prevailing with the public at large—I do not mean the educated public—I mean the mass of people and they must be enlightened upon our Secondary Education Policy. They must be made to have faith in the education imparted in our schools. Unless the mass of our people understand and appreciate the high ideals of our School-Final Scheme it will never be the scheme it was intended to be.

So far about the merits and the high ideals of the scheme unhappily as yet unrealised and now as to its actual demerits. It cannot be said of any scheme in general and much less of this

in particular that it has no defects. It is my intention to deal in some details, among many of the serious drawbacks, one that has come under my daily observation in the course of my Geography teaching to the VI Form pupils. As to the high educational and disciplinary or practical value of Geography, Elementary Science, and Indian History in a Secondary School curriculum, there will be, I am sure, a consensus of opinion and I think I need not expatiate upon that matter. The placing of these subjects of great educational value along with Gymnastics and Drawing in a separate Group called B Group and making the subjects included therein compulsory (i.e., to say they must be taught in school) and at the same time not for the public examination is a wonderful invention of our educational department. And as far as I know in no other province of India such a system prevails. I for one at the beginning never suspected that the efficient teaching of these subjects would be considerably handicapped by the position given to them evidently after some consideration. Referring to the B. Group subjects in general the D. P. I. in his Circular Proceedings, Madras C. No. 3570/10, dated 27th May, 1910, issued soon after ushering in the S. S. L. C. Scheme says: "It is an essential feature of the whole scheme that great latitude should be allowed in regard to the treatment of these subjects and it is for this reason it has been decided that there should be no examinations in them common to pupils of all Secondary schools. It will however rest with the inspecting officers to see that what is attempted is properly taught and that the curriculum as a whole offers a sound secondary school education." All these seemed to me to be at first very fine reasoning. I thought it would be greatly to the advantage of the subjects to be freed from the harassing influence of an outside public examination, that these subjects could be best developed in a free atmosphere, hunted by no fear of public examination, to suit the local

conditions and the varying tastes and proclivities of children. I never thought that with the right methods a teacher would ever fail to secure the attention of children but all my fond expectations based on such purely theoretical reasonings were never realised in practice. Perhaps in the lower classes it will be found possible to create involuntary attention in children by applying right educational methods. But in higher classes especially with VI Form pupils no educational methods however sound and up-to-date would prevail if the pupils have already made up their mind not to listen to some subjects because they won't pay them in the examination and will do them neither good nor evil. With grown-up pupils as with adults all attention is only voluntary. When they have no will to do a thing they won't generally do it and all your best methods will be of no avail for securing their attention. I am in this connection reminded of a proverb that 'one man is enough to lead a horse to water but one hundred cannot make him drink,' and it is just so with these grown-ups who determine beforehand not to listen to a subject which will not pay him at the public examination. This inexcusable attitude of our boys is, I believe, partly one of the evils of the premature specialisation which the S.S.L.C. Scheme has given rise to. The boys are getting more and more narrow-minded. They think they have to work only in a groove and that all work outside the groove is of no benefit to them specialising as they do in some subjects alone. Poor boys! they little know how inter-connected are some branches of study and how one subject will help another. I have heard it said that intelligent smiles radiating from the faces of our children listening to our instructions is a recompense enough for a schoolmaster however poor paid he may be. Even this reward is denied to B Group teachers. Instead of a smile, there is often a contemptuous sneer, a provoked look, a wide gaping, and indifferent air and even a suppressed laughter from especially bad quarters,

all of which I am sure will be enough to provoke the feelings of even the most stoical among us. The B Group holds with other subjects a record of marks but the boys know that this record is meaningless. Not only on account of its position but also on account of the existing Senate circular, the original and the recently modified, both leaving B Group entirely out of consideration. Sometimes representations are made to the school authorities who immediately hold out a threat to the children that unless a minimum is secured in these subjects, their promotions or selections to the public examination will be barred which the pupils know very well will never be carried in practice. Of late the Managers and Headmasters have grown more half-hearted than before. In consequence I am told and I have reasons to believe what I am told that a cheap class of unqualified or poorly-qualified teachers of the type of a Drawing-master or Gymnastic instructor are fast springing up in connection with the B Group subjects, a fact to be looked at with some concern considering the importance of the subjects and the prestige of our profession. Again the Inspector comes; he is satisfied that the syllabus is quite all right and one of a kind offering sound secondary school education, he hears a lesson here and there and pronounces that what is attempted is done properly and on quite up-to-date methods. Of late even the superficial notice is considered superfluous. With indifference on the part of boys and with half-heartedness on the part of Managers, Headmasters and even Inspectors, how can the zeal of even the most zealous of the B Group teachers persevere? It is no wonder that they have lost their zeal and are grown as half-hearted as the rest and if they happen to be teachers of A or C Group subjects they totally neglect these and devote the time to the more favoured A and B Group subjects. Such is the present position of the subjects which were for many decades separate subjects for the Matriculation Examination

in our own Presidency, and which are in all civilized countries demanding more and more attention of the public and the educational authorities—a position which I should like to style as ambiguous, amphibious, equivocal, unenviable and highly deleterious. The institution of the B Group is a great blunder and it has a highly demoralising influence on all connected with the school-work and the children in particular. The habit of inattention and loose discipline is bred and it becomes a part of children's nature and the disease which originates in the B Group classes spreads also to other classes, vitiating the atmosphere of the school-room in general in spite of the several other good features of the schemes intended to promote great virtues therein. Though the evil complained of is great and has been set forth with considerable efforts, the remedy I propose is very simple. It is to abolish without hesitation and without any more delay the B Group or at least to remove the important subjects from its clutches and re-group them under A or C. In this connection I should like to move for re-adoption the highly reasonable and the most feasible recommendation No. 1 of the late Educational Conference held at Trichinopoly under the auspices of our own Association. Re-adoptions of important resolutions arrived at in the past will, I hope, convince others of the firm attitude we have taken and arouse better considerations on the part of the Government and the public at large.

Now to another defect in S. S. L. C. The treatment given to the vernacular in the S. S. L. C. Scheme reminds one of the proverbial unkindness of the step-mother to her foster-child. As though afraid of some scandal the framers of this scheme have given it a place in the A Group but have robbed it of all its beauty and grace by substituting in its place Vernacular Composition and Translation. There is also a suggestion made in reference to the style of the composition that it should be in the colloquial modern form malignantly implying thereby that the old liter-

ary style has become uncouth, unintelligible, awkward and out-of-touch with the people at large as though the colloquialism is an improvement in literature. It looks as though this is the result of a revolt of some of our English educated gentlemen who looked down with derision on all our past. Opinion prevails with some of our educated men that the time is gone for the vernaculars of the country. That India could ill afford to maintain its grammarless vernaculars, that the prevalence of many vernaculars is a thing not desirable in the best interests of the nation at large and the English language should be made more and more the medium of communication. With due deference to these opinions I ask if the views held are not Utopian, if it is really feasible to make English the language of the mass and drive out the ghosts (so call them if you please) of vernaculars that have possessed the country time immemorial and survived centuries of immigrations and invasions. There cannot be, I believe, an influence more engrossing than that of the Aryan immigrant from the North over Southern India. The all-engrossing Aryan influence operating through tens of centuries did not succeed in stamping out the vernaculars. The vernaculars received on the other hand an impetus and a fresh vigour through contact with Aryan or Sanskrit influence. I question also if it is desirable to give up literature in which are entrained our best thoughts, culture, philosophy and religion and if it will not greatly denationalise us. When such is the permanent hold of the vernaculars of our country on the masses of our people, is it not totally unjustifiable that it should find a place in the A Group in the form of some Composition and Translation? In the days of the old Matriculation English suffered likewise: there was language and grammar without texts. If they have found it advisable to re-introduce texts in connection with the teaching of English in the new Matriculation and S. S. L. C. System, I question the wisdom of the Vernacular teaching with Com-

positions and Translations without suitable texts of literary value and the present system of vernacular teaching has given rise, as it should be expected, as in B Group, to a class of cheap Pandits, it being justly presumed that any body can teach modern colloquial composition and translation. This subject also seems to have received considerable attention in our last Educational Conference and influenced their recommendations.

But I should like to take one step further. If the School-Final Scheme is an end in itself which is its ideal, if it is not to be unduly subordinated to suit the necessities of the students seeking admission into Colleges as is often suggested to the Headmasters and Managers in circulars from the Director of Public Instruction, if the people at large should be attracted to the School-Final Scheme, if the Science-teaching is to be of some real service to the people as a whole, if what is taught is to be well assimilated, cultivated and made use of by the majority of students entering life with S. S. L. C. certificates, I propose that all sciences should be taught in the vernaculars of the country. It will be a step quite in the right direction. It will minimise the unnecessary brain-work of the S. S. L. C. students who are obliged to learn all subjects in a foreign language. It will enable the sciences to be better understood and appreciated by the pupils themselves and by the people at large. It will enable them to realise the value and necessity of scientific culture and thus secure greater support from the people in the realisation of the high ideals of the School Final Scheme as an end in itself, as a necessary equipment for all boys entering life without University education. As it is, the majority of our people, even the educated landlords or Mirasidars have no faith in our education as an end in itself on account of the manner in which it is imparted. I remember that one of the influential Mirasidars of my place openly avowed in the last District Conference his want of faith in our education, especially in the

manner in which it is imparted. I could very well understand the tenor of his mind. He has no belief that the education imparted in our schools equips boys for the common walks of life. This wide gulf will, I believe, to some extent, be bridged over by the teaching of sciences in vernacular. No great alteration need be effected in the recommendation of our last Conference. It is only an additional suggestion that the sciences, at least, in IV and V Forms should be taught through the medium of the vernacular of the country, the VI Form being left free to study their optional sciences in English. I hope you will think over this seriously and pass a resolution embodying the simple but highly important suggestion.

In the last Conference, among the points brought up for discussion in connection with S. S. L. C., there was one in regard to school record or marking, the objections raised to the feature being that the school marks are neither reliable nor uniform. In the face of the absence of any recommendation in connection thereof, we have to infer that the school record was accepted as a desirable feature. The Conference did well to have once for all settled the question of the desirability of that feature. It seems to me it is an important feature, nay, the central pivot of the scheme. It has introduced a marked improvement in the school-work. There is no denying the fact that there is more regular distribution of work throughout the year, more careful preparation on the part of teachers, more diligence, regular attendance and attention on the part of the pupils than in the old Matriculation regime. The school record is very good in itself but how the preparation of it has been taxing, grinding, pounding and killing the Secondary school teachers, nobody outside the cursed circle of the school Assistants seems to have sufficiently realised. It is also a matter for surprise that the last Conference did not take up the subject of this S. S. L. C. hardship upon the teachers. What with preparation before-

hand, what with maintenance of notes for daily lessons in which the results of the methods tried have also to be entered along with the aims and methods (by the way, these notes must not be written once for all but must be written day by day and year after year), what with setting up of questions of equal difficulty for marking in connexion with the oral examination, what with the correction of weekly written essays, weekly practical exercises or maps and monthly written examinations leaving out of consideration the trouble involved in the setting of such exercises, the teachers' work in the school-room has increased nearly three-fold. We will take for instance the case of an English Assistant with 2 sections of English and 2, or 3 sections of Indian History to teach whose work in aggregate comes to 22 or 23 periods per week which is the usual amount of work assigned to an Assistant by the kind-hearted Headmaster. For 23 periods of school work he has to make previous preparation, write notes of lessons and set a number of questions of equal difficulty, all of which will take about 30 (thirty) periods per week, the valuation of weekly written essays for two sections at the maximum speed of 8 notes per period will take 10 periods. Practical exercises or maps at the same speed at 15 notebooks per period about 5; monthly examinations at 4 answer books per period 5 periods, thus the extra work on the whole comes to about 50 periods which with the school work amounts to 73 periods a week, &c. The average work per day leaving no day for Sabbath or rest comes to 12 periods or 10 hours a day. This is the work of an English Assistant with "Tom Brown" to teach as a Text-book for every word of which he has to refer to the dictionary. The case of the History or Geography Assistant is harder still; for his work is more complicate and he has to take up more sections for the same number of periods. I am not in any way overstating the case and every one of my Assistant-friends will, I hope, bear me out in the accuracy of my calculation and

agree with me when I say that the pressure of teachers' work has increased more than threefold after the advent of S. S. L. C. Scheme. In the face of this pressure of work that the number of periods given to an Assistant should remain the same 22 or 23 periods as in the days of Matriculation seems to speak volumes about the want of consideration, humanity or sympathy on the part of all concerned in the Secondary school management towards the Secondary school Assistants. The Government, while introducing the scheme, recommended, I believe, in the hints and suggestions issued to the Managers of the Secondary schools, that the Headmasters of institutions should be given only 10 periods of teaching work and left the case of his Assistants in the hands of Managers and Headmasters who are their immediate superiors and employers. The speculating Manager with all his eyes on his purse cannot understand by himself the great pressure of work on his employees. That the Headmaster, the foreman among the Assistants, who is qualified in every way to realise the immense pressure of work on the part of his Assistants consequent on the adoption of the S. S. L. C. Scheme should have also played into the hands of the Managers and should have imposed on them who are as qualified as himself 22 or 23 periods of work as in the Matriculation days without in any way trying to mitigate the hardship of his fellow-workmen is something horrible to think of—I am aware I am now playing upon a discordant note. If harmony should prevail, there must be more sympathy, fellow-feeling, humanity and justice. I appeal, therefore, to all members here present to immediately decide on appealing to the several parties concerned in this tragedy for a reparation in the shape of some relaxation in the pressure of our work by granting us at least more leisure, never mind better pay. I include among the Assistants not only the hard-worked High School Assistants with 22 or 23 periods of school work out of the maximum 30 periods but also the still harder worked Lower

Secondary Assistants who work all the periods of the day and whose only periods of rest are the few minutes when the boys are off in the Gymnasium-ground for an half-an-hour drill or play. I beg of you (Assistants, Headmasters and Managers or Professors) therefore to pass a resolution limiting to a reasonable and just number the periods of school work to be assigned to an Assistant per day or week. A resolution of ours will, I hope, evoke some better consideration on behalf of the poor School Assistants from all those responsible gentlemen running the machinery of the secondary education and open the eyes of the Government to the unfortunate lot of the Secondary school teachers who, though they serve the Government as well as if not better than the other public servants, are without any tenure of service, without any adequate salary, and even without the rest or leisure so necessary for keeping the body and mind in health and vigour.

In conclusion I sum up that the School-Final Scheme has some very good ideas unhappily as yet unrealised and quite incapable of being realised in the present condition of our public and with the present educational policy of our Government; it has some merits or good features which, from our experience we cannot but admit, have succeeded in introducing in the school room better methods, more careful preparation and better distribution of work on the part of the teachers and more diligence and attention, more regular attendance and better discipline on the part of the pupils, bringing down the pressure of their brain work, driving out the old Matriculation evil of cram and improving, on the whole, the tone of our secondary education; and at the same time we have to regret that it has some serious drawbacks or defects undermining all discipline and handicapping all zealous or good teaching; it has also given rise to grievances in regard to the neglect of the vernaculars and

the immense strain of work it has involved the School Assistants in. But I should like to warn you against the tendency there is in some quarters of going back to the monstrous Matriculation days as the only remedy for some of the otherwise easily curable small evils of our S.S.L.C. Scheme. If the University have no confidence in our carefully and conscientiously prepared school-record and in the results of the S. S. L. C. public examination conducted as it is by a Board of Examiners appointed by Government all having considerable touch with the secondary school work assisted in the work of the valuation of answer books by Headmasters or School Assistants actually engaged in Secondary schools, let them by all means have another entrance examination of their own. For my own part I have my grave doubts, as to the desirability of an entrance examination as a passport to the University conducted by the University men with no experience of school life.

K. RENGASWAMI AITANGAR.

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ASTRONOMY AS DEVELOPED IN INDIA AND ELSEWHERE.*

THE object of my lecture is mostly to dispel from the minds of some of my young friends; brought up entirely under the influence of Western culture, the idea that our India had no glorious past worth the name. Some of them are of opinion that before the advent of the British into India, our forefathers were in a semi-civilised state. They even go to the length of saying that the system of Government during the pre-British periods in India was very crude, and that if any branches of knowledge were known to our fathers at all, such branches were all undeveloped, and were yet in the making. Some of my young friends have an unbounded admiration for everything occidental, but when they turn to anything oriental, their attitude is quite the reverse. This is perhaps due to the fact that they are only taught to see themselves through the eyes of others. However impartial strangers may try to be while speaking of others there is yet what is called "personal equation" which goes a great deal to colour their views. The Western critics—at any rate most of them—are, out of patriotic feelings, apt to ascribe some influence or other of the Greek civilisation to anything great achieved in India. Of course there are some others—only very few—who are not subject to "personal equations" while speaking of India. Fortunately for us, there are eminent Indian research scholars, whose views may be accepted as almost authoritative. Here again there is another danger on this side, the danger of our Indian writers being over patriotic and over enthusiastic. Therefore it is that my friends must try to see India through their own eyes and through the eyes of foreigners so that they may not be far away from truth.

* A lecture delivered by Mr. K. Krishnamacharya, B.A., L.T., Headmaster, H.E.L.M. High School, under the auspices of H. E. L. M. Students' Literary Union, Tirupati.

To show that our fathers were not only speculative and other-worldly, but they were also as practical and this-worldly as any of the civilised nations, past or present, and that they were by far advanced in the various branches of knowledge—nay farther than any of their contemporaries, I have to-day taken up one branch as a specimen, leaving the other branches for you to study whenever an opportunity favours you. Here I shall simply touch upon some salient points, without entering into the mathematical details.

The science of Astronomy is as old as the history of man on the face of the Earth. It is therefore impossible to say definitely when and how and by whom some of the familiar facts in Astronomy were first discovered. When man first gazed at the sky it was with an indescribable feeling of wonder at the grand spectacle of the starry heavens; wonder gradually gave place to speculation, which in its turn led on to investigation. The early Aryan gradually came to see that some of the bright points in the heavens are slowly changing their relative positions, while others are practically at rest. The former he called the planets, and the latter the stars. He marked along the path of the planets several constellations of stars and gave them names. We cannot say when that took place, nor where. It is probable that this may have been done by several of the ancient nations independently of one another. Man's nature is the same in every age and in every clime. But his environments are mostly responsible for an earlier or later assertion of his powers. So far as the Indian Aryans are concerned, the fertile Gangetic Valley is mostly responsible for their earlier development in India, than in some of the western countries.

It is but natural that man should first think of himself before he can think of others. Therefore it was that the earlier man tried to give himself a prominent position in the Universe, placing his earth at its centre and making the sun, the moon, and all the planets known to him to move round

his earth. It is only this geo-centric theory that the Indian astronomers maintained along with the astronomers of the other countries. But some of the commentators of Aryabhata—an Indian Astronomer of the 5th century A.D.—read into his verses the helio-centric theory, but I, for one, cannot believe that Aryabhata ever dreamt of it. The credit of that discovery is certainly due to Copernicus. But the fact that Aryabhata expressed in unmistakable terms the rotation of the earth on its own axis, while his predecessors and followers maintained that the Earth was stationary, deserves the commendation of the scientific world. To prove this rotation Aryabhata uses the familiar illustration of the relative motion of the stationary objects, while the observer moves in a boat down a river.

अनुलोमगतिः नौस्यः पश्यत्यचलं विलोमं यद्गत् ।
अचलानि भानितद्वत् समपश्चिमगानि लंकायाम् ॥

Again the Hindu Astronomers were familiar with the variations in the lengths of the days and the nights throughout the year in the several zones of the earth. Hence they must be credited with the knowledge of the inclination of the earth's axis towards the north. But they had their own way of expressing it. Being highly superstitious and believing in the existence of the supernatural beings, they located their Gods at the North Pole (since they themselves came from the North), and the enemies of their Gods (the Asuras) at the South Pole, and spoke of their respective days and nights as of six months' duration each. While it was the day for the Gods, the Asuras had their night, and *vice versa*.

While speaking of the length of the day of men, of Gods and of Asuras, they did not forget to speak of the length of the day of their *Pitris*, whom they located on the Moon. The day and the night of the *Pitris* was each equal to a *Paksha* or fifteen days of men. This is exactly the opinion of our present day astronomers. Since the Moon always presents the same disc to the

Earth, it is inferred that her time of rotation is equal to her time of revolution. Hence the inference

सकृदुद्गतमन्दार्धे पश्यत्यर्कं सुरासुराः ।

पिदरः शशिगाः पक्षं स्वदिनं च नराभुवि ॥

Surya Siddhanta.

We are all taught in schools that John Kepler (16th century) was the first to discover the elliptical nature of the orbits of the planets and that Sir Issac Newton established it beyond doubt with his mathematical calculations. True, it may have been a discovery so far as the Westerners are concerned. But this fact was known to Aryabhata. To calculate the apparent angular diameter of the sun Aryabhata gives a formula. This shows that he was aware of the varying nature of the apparent angular diameter of the Sun and hence of the varying distance of the Sun from the Earth, throughout the year. (It is now known to be the greatest on the 1st of July and the least on December 31). Therefore it is that he speaks of the apparent orbit of the Sun round the Earth as not circular, but as *Uchcha Neecha Vritta*, which clearly means elliptical. Next he infers that the orbits of all the other planets too are elliptical. What I want here is not to take away the credit either from Kepler or Newton, but to give part of it also to Aryabhata.

There is again another point wherein I should like to espouse the cause of the Indian Astronomers. This is regarding the Gravitation theory. It is true Newton discovered it, rather re-discovered it in his own way, and established it by the help of his extraordinary mathematical knowledge. But Bhaskaracharya (about the 12th century A.D.) is reported to have known it. "Objects fall to the Earth, because they are attracted by it" is said to be what he asserted. Whether Bhaskara can claim recognition as a great Mathematician of the Newtonian type or not, he does certainly deserve some credit for his gravitation theory—no matter how he arrived at it, whether intuitively or otherwise.

In the Ramayana there is reference to something dark on the sun's disc. Rama speaks of this, in the *Yuddhakanda*, twice within an interval of two days.

आदित्ये विमले नीलं लक्ष्म लक्ष्मणदृश्यते ।

Therefore it cannot be the transit of the Venus or the Mercury across the sun's disc. Hence it ~~must refer~~ only to the spots on the disc. But the credit of having discovered these sun-spots goes only to Galileo. Whether our people were aware of the nature of these spots or not, it is certain that they were aware of their existence on the sun's disc. While speaking of the world, the Europeans have only the western world in view. It is not known why they do never think of India as being a part of the world, when such questions arise. That is why the credit of the first discovery is always given to the later Astronomers of the West, in spite of the fact that most of these things are found clearly recorded by the Indian Astronomers. The other day a famous wrestler of the western world was declared as the "undefeated champion wrestler of the world," even though he ~~was~~ defeated in India by a Mahomedan wrestler. (See *Modern Review*, Feb. 1916). But that is the way with the West.

Though the cycle of 60 years is as old as 3,000 B.C. we find our Aryabhata trying to account for it.

षष्ठ्यासूरीन्दानां प्रपूरयन्ति ग्रहामपरिणाहम् ।

(All the planets make a certain number of complete revolutions in 60 years.) Of course Aryabhata does not here take into account the Uranus and the Neptune. He does not know them at all. The credit of their discovery, and that of the minor planets called the Asteroids between the Mars and the Jupiter, and also that of the satellites of most of these planets is wholly due to the Westerners.

Lastly there remains only one point which I should like to touch upon. It is what is generally known in India as the Sauramana and the Chandramana systems of calculating time. Sauramana

is certainly of Greek origin, as the names of the signs of the Zodiac suggest. But the Chandramana is indigenous to India and it is as old as the Rig Veda itself. The early Aryans calculated their days and months from the motion of the Moon. Their month was divided into two halves Sukla Paksha and Krishna Paksha, each half being then divided into 15 days. Their days had no names but were simply called the first, the second, etc., up to the fifteenth. But the fifteenth day in either half of the month had a special name, Purnima (the Full Moon) and Amavasya (the New Moon). Their month was from the New Moon to the New Moon, and they named their months after the constellations about which the Full Moon in the months occurred. Thus *Chaitra* was because of the *Chitta* constellation and *Vaisakha* because of the *Visakha* and so on.

The names of the week days are of Greek origin. And Aryabhata explains the origin of these names. A day being divided into 24 hours, over each hour of the day the planets beginning from the outermost (the Saturn, of course) was one by one in succession installed as the lord. Thus if the Saturn is the lord of the 1st hour of a day, the lord of the first hour of the following day will be the Sun, the order of the planets being the Saturn, the Jupiter, the Mars, the Sun, the Venus, the Mercury, the Moon. (The ancients included the Sun and the Moon among the planets). And a day was named after the lord of its first hour.

While speaking of the Indian Astronomers' achievements in glowing terms, I may be doing injustice to the astronomical world, if I fail to mention some of their failures. The Indian Astronomers never pretended an intimate acquaintance with the physical nature of stars. Aryabhata even committed the blunder of saying that the stars are not self-luminous, and are like the planets, reflecting the light of the sun. Even the view that the stars are stationery has been falsified by the present day astronomers. The proper study of the stars began

with the invention of the telescope and the perfection of the spectrum analysis. The Indian Astronomers are not expected to have done otherwise than what they did regarding the stars.

There is again another field not traversed by our astronomers. They never knew anything about the nature of the comets, not even their elliptical orbits. It was left for the Westerners to discover that.

What, in the end, I should like to impress upon the minds of my young friends, by citing these illustrations is only that they should not be satisfied by simply seeing themselves as others see them, as through a coloured glass, but that they should also make it a point to see them with their own eyes. They should on the one hand try to avoid the danger of being carried away by the opinion of others, and on the other the danger of being over patriotic and over enthusiastic. In the former they may miss some of their own good points, and in the latter, some of their bad points. Both the extremes are thus one-sided. Therefore it is that they should make use of both the methods, so that they may not be far away from truth.

I suppose I have thus explained as best as it has been within my power, that the achievements of our fathers in the science of Astronomy were not as insignificant as they are generally supposed to be. They have also developed, as handmaid of Astronomy, the science of Mathematics in its various branches: Arithmetic, Algebra, Geometry and Trigonometry. Their medical science is now spoken of very highly even by the western doctors. As a helpmate of medical science their *Rasayana* *Sastra* or Chemical Science reached a very high stage of development. Such of my friends as are curious to know something of this are referred to Dr. P. C. Ray's *Hindu Chemistry*. Books there are which can give us some account of what our fathers knew in the various branches of knowledge, and to such books we must refer before we can have an opinion of our own past. With this brief advice I close my lecture.

THE SCHOOL-FINAL AND THE DECLINE OF MATHEMATICAL STUDY.

NOW that it is over five years since the School-Final was introduced amongst us, it is certainly not inappropriate that we should enquire into the extent to which it has affected the study of the different subjects. In the present article we will only attempt a brief estimate of its influence on the study of Mathematics.

A due recognition of the value and importance of mathematical study led to the inclusion of that subject under the group of compulsory subjects for the School-Final Examination. The S. S. L. C. Board subsequently drew up a syllabus of study in that subject, just to indicate on what lines Elementary Mathematics must be taught to boys appearing for the public examination. With due respect to the learning and ability of those who had the honour of framing this syllabus let us make one or two observations on its drawbacks.

The first complaint that is generally made against it and which is, probably, a complaint commonly levelled at all such schemes of study is that it is vague and indefinite and does not throw any light on the degree of proficiency to be attained in the subject. Naturally enough, the chief outcome of this defect is that in different schools the subject is taught to different degrees of proficiency, and the more poorly taught boys are left in the dark as regards the sufficiency of their knowledge of the subject. Teachers, however, have tried to understand something about the scope of the syllabus from the few public examinations that have hitherto been held and have modified their teaching accordingly. Just for the sake of illustration we will cite one item of the syllabus which is not conspicuous for mathematical definiteness: graphical solution of simple problems in Arithmetic. What is really signified by the adjective 'simple' here, one does not know. Considering that the Sixth Form is

the highest class in which Arithmetic is taught in our schools, it is fairly reasonable to imagine that a pretty complete course in Arithmetic must be gone through before a boy appears for his School-Leaving Certificate examination. On this presumption all common types of problems in Arithmetic must be familiar to him and he will therefore have to acquaint himself with their graphical solutions. There is, then, a fear that a boy may be asked to solve any arithmetical question graphically. Of course, the Elementary Mathematics papers in the recent examinations have tolerably well dispelled such a fear from the minds of many teachers; but a departure from this standard may also be justified with this elastic syllabus of study. A want keenly felt in this direction is, thus, a detailed scheme of study giving much more precise information as to the standard of merit required of a School-Final candidate.

Another serious point against the method of instruction encouraged by the existing syllabus is that theoretical work is lamentably discouraged. Beginning with Geometry, in which the Matriculation Examination requires a good knowledge of what formerly used to be covered by the first four books of Euclid, we have to observe with pain that the geometrical knowledge of most of our Sixth Form boys does not very much exceed the information that their compasses are meant for describing circles and their rulers for drawing straight lines. And surprisingly enough so many have gone with this admirable mastery of the subject to the Higher University Classes that their juniors have always had a dangerous batch to emulate. When the boys have so poor—yet strong and unshakable—an idea of the requirements in Elementary Mathematics, the natural result is that all the efforts of the teachers to impart a higher degree of instruction are lost upon them. Geometry, without theory, is like a locomotive with no steam. The beautiful, rigorous foundations on which

that science has been built afford excellent scope for the young intellect to develop. A bare knowledge of a few geometrical truths obtained by practical drawing and observation—in itself not very intelligent or suggestive—without any insight into the rigid logical reasoning by which they are established is sure not to take root in the student. It evaporates as soon as the public examination comes to a close. As regards the neglected state of Algebra, it is enough to say that there are hundreds amongst the School-Final candidates who do not know how to split into factors an expression of the form $ax^2 + bxy + cy^2$. The proofs of the chief formulæ in mensuration require slight notions about limits; and what notions about limits can one give boys who have such meagre mathematical basis?

The unavoidable result of all this has been to put a check on the growth of the talents of our boys. Mathematics, in the real sense, is known only to boys who take it up as a special subject. The rest, however, drift on somehow and with the peculiar advantage offered by the slight power of discretion which was granted to Principals of Colleges till recently, manage to get a lift to the Junior Intermediate class. That the study of Mathematics is declining is proved by the following table, which shows a gradual fall in the Presidency average in that subject during these years (with the exception of one—1915). It will be profitable to observe this fall along with the tolerably flourishing condition of the other subjects.

PRESIDENCY AVERAGES.

Year.	English.	El. Math.	Eng. His.	Geo. & Alg.	Phy.
1911	30.1	39.1	32.6	48.1	14.8
1912	34.9	38.6	35.7	55.7	20
1913	43.2	30	40.4	38.7	32.6
1914	48	29	38	59	33
1915	51	32	31	46	31

It is a known fact that with the exception of one there are no text-books written in accord-

ance with the syllabus. It is, of course, difficult to get authors who will take the trouble of writing books on lines so curiously and inadequately indicated by the scheme. Mr. P. V. Seshu Aiyar has tried his best to conform to the syllabus and with a little more of theoretical matter that could have been inserted in the chapters on Geometry, the book would certainly be a guide to the teachers and the taught alike.

To encourage mathematical study amongst our boys, it is, in the first place, necessary that candidates must be prepared for two papers in Elementary Mathematics, one dealing with Arithmetic and Algebra, and the other with Geometry and Mensuration. Much more of theory must be done in Geometry. More drilling in symbolical expression in Algebra must be insisted on, and some of the hitherto neglected portions such as Factorisation, the Application of Algebraical Equations to Arithmetical Problems, etc. must receive due attention. As these extensions may mean an incursion into the province of what is called optional Mathematics it is advisable to add to the latter the theory of Ratio and Proportion so as to preserve its extent. This extension of the course in optional Mathematics is desirable for another reason. In optional Geometry boys are taught theorems on Ratio and Proportion. It would therefore be only proper if its algebraical counterpart is also taught side by side to maintain a certain unity of study.

It is also essential that reasonable strictness should be shown in the promotion of boys, their ability in Elementary Mathematics being a necessary condition for promotion. As it is, the ability in Elementary Mathematics required is so poor that it may not be very difficult for one to find in a Sixth Form boys who cannot manipulate with decimals. Those who have at heart the progress of India's intellect, cannot fail to grasp the significance of these remarks and suggestions.

M. K. VEERARAGHAVA IYER.

SCHOOL AQUARIUM.

THEORY and practice should co-exist in the methods of giving instruction in subjects dealing mainly with the objects of Nature. Both are inseparable for a right teaching of Nature study, and signs of isolation are seen, to a great extent, to pervade the teaching. Practical subjects, treated thus, will lose their interest and effect on the pupils, the moment they get out of school. In their school-time the boys have to bear a very great weight on their memory for their passing under the pressure of their circumstances, and no wonder that after the release of the school pressure, the smuggled contents of their memory having nothing to rest on pass away. The case would be otherwise if sufficient accompaniments exist to anchor to the memory the things taught. In Nature study the anchoring agents are school garden, school museum, terrarium, the aquarium and the occasional out-door trips. A brief mention on the value of each is never out of place, when we consider the conjoint effect produced on the mind by the co-operation of such practical necessities to the teaching of Nature study. School garden is a practical and useful device for giving the field for the original, individual as well as common training of the powers of students. A sense of individuality and responsibility is the outcome of a student's efforts in the garden. The terrarium consisting of a glass box having a removable lid, and supported on wooden legs, presents before the students the terrestrial larvae and pupæ of insects and the out-door trips help to aid and consolidate the effects of the above. The school museum consists of exhibits, geological, zoological, botanical, etc., for the class illustrations. School aquarium is a successful aid for the observation and study of the habits of aquatic organisms.

Is the school aquarium the only way of studying the living aquatic fauna? Is the study impossible under any other condition? Though the

natural and vast expanses of water are the only places where aquatic fauna can best flourish and develop, they cannot lend themselves to an easy and perfect study of their contents on account of certain difficulties which are possible of remedy in an aquarium. The constantly moving currents and waves, their enlarged and disturbed surface and their depths incapacitate any attempt at steady and correct vision of the animals there. The impossibility of seeing from the sides heightens the difficulty. A handy and artificial imitation of the habit of the aquatic animals—in the form of an aquarium—is the only possible and hopeful way of reaching our aim. The principles involved in its construction and working require to be acquainted with before such an imitation can take a practical shape.

Animals inhale oxygen for the oxidation of their tissues and exhale carbon-dioxide; a fresh supply of oxygen must await the exit of carbon-dioxide from the body. Any delay either in the supply of oxygen or the elimination of carbon-dioxide from the animal surroundings will in the beginning, impede and in the end stop the respiratory activity of the animal. Therefore sufficient care must be taken to supply oxygen to the animals as fast as the demand is made, and to eliminate or decompose the harmful carbon-dioxide; otherwise the excessive and harmful accumulation of the latter with a deficiency of the former will lead to the failure of the aquarium. The introduction of water plants along with animals will, to a certain extent only, satisfy the intended purpose. The plants inhale the carbon dioxide left by the animals and exhale oxygen to meet the animal demand. The nitrogenous animal waste is helpful to the plant growth, and in return the vegetarian animals live upon plants nibbling at them. But plants are incapable of producing oxygen as fast as the demand is felt by animals and an absolute dependence upon plant help will wreck the animal life. Even in the natural expanses of water the work

of the plants in producing oxygen is very little in comparison with many other better aerating agents such as, rise and fall of tide, waves, ripples, waterfalls, storms, etc. These mechanical and natural devices help to dissolve a good deal of atmospheric oxygen for the use of the needy animals within. Secondly, the large evolution of oxygen is, to an extent decomposed by plants but largely used up by certain shell forming organisms, like corallines, for the construction of their shells. Thus the water is negatively purified. The agents operating in nature cannot be brought to operate in our aquarium and certain substitutes for them must be found for its success.

In marine aquaria some devices are adopted. These are a series of tanks containing marine animals and the sea water is pumped in through the tanks. It is very convenient to locate the aquarium near the sea for such facilities. If fresh water aquarium be used, water under high pressure if made to flow into the mechanism carries a large amount of oxygen in its rush. The conditions of working of a school aquarium stand against the use of any such elaborate mechanism. The glass or any other receptacle adopted for such aquaria may be kept under a tap from which the water pours on to the vessel, thus sustaining the life of fishes therein. A large quantity of fresh water may be stored in a small reservoir and this water may be led through a pipe on to the aquarium underneath. If that is not easily possible we should meet the necessity for constant removal and renewal of water and for cleansing the vessel, by taking away any dead animal or unused particles of food.

For this purpose it is convenient to choose a wide and shallow vessel and not a deep one, since difficulties of oxygenation and cleansing increase with the depth. Though the glass vessel suffers the disadvantage of injuring animal life by letting in light from the top as well as from the sides, it can be preferred to an earthenware

pan of the same dimensions because the latter renders the study of animals from the sides impossible thereby defeating the purpose of the aquarium itself, and because we can remedy the defect of too much light from the glass vessel by placing it near a north window and by preventing the incidence of the direct rays of light thereon. If an aquarium is desired on a larger scale, a small rectangular tank with more length than height may be used with a wooden, preferably metallic, base, with sides being partly glassy, partly wooden or slaty. The height must be within even less than a foot.

WORKING.

Certain precautions should be taken before the apparatus can be ready for use. The tank must be filled with pure water and left for two days within which time we may be able to see any leakage or any odour due to the cementing of the sides and any injurious soluble substances present in the corners. These are unnecessary in the simple mechanism of a glass vessel. The treatment of the aquaria depends upon whether they are fresh water or marine. Since it is only to a few living near the sea that conveniences for marine aquarium are available, I shall confine my attention to fresh water aquarium. Cleaned and washed sand must be spread to a height within 2 inches, but sand got from salt water should be studiously avoided. Aquatic plants—water-weeds may be planted on the sand and to keep their roots undisturbed by any flow of water within, a layer of gravel should be spread at the places where the roots have fixed in the sand. Irregular blocks of stones—fresh unweathered rocks, say fresh granite, may be placed in the water so that hiding places are offered to the animals which would like to resort to them; so that certain animals not habituated to being submerged always, might raise themselves temporarily above water. The next step is the gentle pouring in of water and hard water should never be used. The whole should be kept

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for some time before animals are introduced. Care must be taken not to put together carnivorous animals with weaker foes, provision of course being made that a certain proportion of the larvae and pupae might form food for higher forms. As little of food as possible must be given, any unused particle being instantly removed.

If this aquarium is worked carefully, there is no doubt that it is of utmost help in teaching Nature study. If, for example, a new lesson on fishes is to be taught, what we have to do is to direct the student's attention to the shapes and habits of the animals moving about in the aquarium. Most of what the student has to learn can be got very effectively, with little effort on the part of the teacher, by simply questioning the students on the living objects around them. They feel a certain amount of amusement, and instruction seasoned with it will never sit heavily and painfully upon the memory of students.

K. RAMACHANDRACHAR.

In the Press.

MILTON'S PARADISE LOST

BOOK I

WITH NOTES AND INTRODUCTION

REVISED BY

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THE COMMERCIAL TEACHER UNDER THE S. S. L. C. SCHEME.

BEFORE coming to the position which the teacher occupies it may not be quite out of place to briefly point out the importance of commercial training. This is the age of commerce. In no period of world's history has business occupied such an important place. Business, as it is constituted to-day, affords ample opportunities for the highest honours, for the most enduring fame, and for unlimited wealth and power. It is a field to attract the able and the ambitious and in which the greatest talents can be exercised. In short, the example of the countries—England, Germany, United States, etc., that are foremost in the world and the countries in which education—Technical and Commercial—has attained a very high degree is conclusive proof in this respect. What is taught as commercial subjects in our High Schools cannot be called "commercial education." Still they are exceedingly useful and absolutely necessary that such practical matters should form part of a commercial syllabus and that they create an interest for real commercial education. Happily this stimulus was given by our Government by introducing a commercial bias into the curricula of the School Final Course. They have also laid down the qualifications and the salary of the master in charge of commercial classes under the scheme. The commercial teacher should be one trained at the Special Commercial Training Class at Calicut or one who has obtained the Technical Teacher Certificates in the subjects of the group they are to teach. His salary to start with is Rs. 60 per mensem in Government institutions where these classes are organised, but it is a question of supply and demand in the case of a majority of other schools. It is not surprising to note in the papers calling for applicants—trained Matriculates who are also qualified commercial teachers—on Rs 30. In these days of very high prices when the grade of every member of the

staff in an institution is raised, that of the commercial Assistant is rather going down. It is because that a large number of unqualified men have come into the market at a cheaper price. What is worse is that the commercial teacher is, in many cases, forced to take up some general subjects (though for which he may not be qualified) to some classes, and in some cases to be in entire charge of one class and, in addition, to teach the commercial subjects after the regular school is over when the teacher and the taught are tired after a hard day's work. Under these circumstances the result proves unsatisfactory. If he refuses such general teaching and maintains that he is only a commercial Assistant his position at once becomes shaky and he is to look to papers for advertisements or canvass offers. If one were to collect facts re the change of staff in schools it will be found that the commercial teacher changes very often. There are also other circumstances that discourage the Assistant in many instances. Most of the headmasters allow only such of the students as will not do for any other group to take up commercial subjects while these require equally, if not more, intelligent pupils. A special fee is charged for typewriting while the Government have fully paid for the machines and it is right for the management to bear the cost of contingencies. I understand that some time ago an association called "The Commercial Teachers' Association" was formed at Madras. If so, though I have not heard any of its doings, I hope that the Association will take these defects to the notice of the department to better the position of these special Assistants in our High Schools.

G. S. RANGASWAMI AYYAR.

HISTORY OF EDUCATION IN THE UNITED PROVINCES—III.

By MR. B. SANJIVA RAO, M. A. (CANTAB.)
COLLEGIATE EDUCATION.

The early beginnings of higher education have already been traced at the commencement of this paper. But the foundation of the Universities marks the most important epoch in the history of English education in India. In 1845 the Council of Education at Calcutta under the presidency of Mr. Charles Hay Cameron prepared a plan for a University at Calcutta. But this proposal was not encouraged by the authorities in England, and it was only when Parliament took up the question of the renewal of the East India Company's charter in 1852-53 that it received any attention. A parliamentary enquiry into Indian affairs was held by select committees of the House of Lords and the House of Commons who collected a mass of evidence about the progress and policy of English education in India. In the course of the enquiry Mr. Cameron presented a petition which is of great historic importance. The petition asked that (1) one or more Universities may be established in British India; (2) that a Covenanted Education Service may be created, analogous to the covenanted Civil and Medical services; (3) that one or more establishments may be created at which the native youth of India may receive in England, without prejudice to their caste or religious feelings, such a secular education as may qualify them for admission into the Civil and Medical services of the East India Company. Mr. Cameron's views placed before the Select Committee are of the utmost importance. He said:—

"My suggestion would amount to this, that there should be in each of the great capital cities in India a University, that is to say, at Calcutta, at Madras, at Bombay, at Agra; these four cities being the centres of four distinct languages; Calcutta being the focus of the Bengalee

language, Madras of the Tamil, Bombay of Marathi, and Agra of Hindi. In those four Universities would be taught, according to my notions, the English language, and all the literature that it contains; and Science also in that same language; and at the same time, the four languages that I have mentioned would also be cultivated. Native students would be practised in translations from English into each of those languages and from each of those languages into English. Every encouragement, which the Government can give, would be given to the production of original works in those native languages. That system already exists to a considerable extent; but there is no University. There is nobody which has the power of granting degrees; and that sort of encouragement appears to be one which the natives are fully desirous of. They have arrived at a point at which they are quite ripe for it, and they themselves are extremely desirous of it, that is to say, those who have already benefited by this system of English education are extremely desirous of those distinctions and are extremely desirous of having that sort of recognition of their position as subjects of the Queen of Great Britain."

Mr. Marshman who was one of the witnesses examined, said, that these Universities should be established upon the exact model of the London University, that its functions should not be to teach any branch of knowledge, but to examine and classify and to give degrees to those who had been taught in other institutions. Professor H. H. Wilson was entirely opposed to the scheme on the ground that the "natives certainly could not appreciate the value of such titles; it would be of no advantage to a young man to be called a Bachelor of Arts amongst the natives of India, who could attach as positive idea to it, it would be inconvenient if it gave him *place and precedence amongst Europeans*." (The italics are ours); but the objections are very significant. Sir Frederick Halliday opposed it on the ground that the inferiority of missionary and private

institutions rendered it impossible for students trained in these institutions to come up to the standard laid down in Government institutions.

The Educational Despatch of 1854 of Sir Charles Wood forms the charter of education in India. It laid down the following recommendations:—

- (1) The constitution of a separate department of the administration for Education.
- (2) The institution of Universities at the Presidency towns.
- (3) The establishment of institutions for training teachers for all classes of schools.
- (4) The maintenance of existing Government colleges and High schools, and the increase of their number when necessary.
- (5) The establishment of new Middle schools.
- (6) Increased attention to Vernacular schools, indigenous or other, for elementary education.
- (7) The introduction of a system of Grants-in-aid.

English was to form the medium of instruction in the higher branches and Vernacular in the lower. It was to be taught whenever there was a demand for it, but was not to be substituted for the vernacular languages of the country.

The principles of the Despatch of 1854 were confirmed by the Secretary of State in the despatch of 7th April, 1859, which laid special stress on the improvement of vernacular instruction, suggesting the expediency of imposing a special rate on the land for the provision of elementary education. Education departments were formed, each under a Director of Public Instruction. The Education Department in the N.-W. Provinces and Oudh was established in the year 1854-1855 and had under its control 4 English and Oriental Arts colleges maintained by the department with 1,920 pupils.

Comparative estimate of the extent of Collegiate education in the 1st Departmental year in the various provinces of India.

Province.	First departmental year.	Arts Colleges.	English and Oriental.
Madras..	1855-1856 1	Departmental colleges 7	802 pupils
Bombay.	1855-1856 2	Departmental colleges 108	"
Bengal & Assam.	1854-1855 3	Departmental, 6 extra departmental.	921 "
N.-W. P. & Oudh.	1854-1855 4	Departmental colleges 1,920	"

The number of pupils include those in the College with its High schools at Delhi which at the time was included in the N.-W. P. and Oudh.

In 1854 the Indian Universities were established and the Court of Directors in their educational despatch laid down the following principles among others:—

- (1) The London University was to be taken as the model.
- (2) The Universities were to consist of a Chancellor, a Vice-Chancellor and Fellows who will constitute the Senate. The Senates were to have the management of the funds and to frame the regulations under which periodical examinations were to be held in different branches of Science and Art by examiners selected by them from their own body or nominated by them.
- (3) Religious subjects were to be excluded.
- (4) Sanskrit, Arabic, and Persian might be included among the subjects consistently with religious neutrality.

The Allahabad University was incorporated in the year 1887. Till that time the Colleges in the N.-W. Provinces and Oudh were affiliated to the Calcutta University. The following table gives some idea of Collegiate education in the various provinces:—

1857-1870-71.					
	Arts Colleges.	F.A.'s	B.A.'s	M.A.'s	
Madras	12	784	152	6	
Bombay	4	244	116	28	
Bengal	17	1,495	548	112	
N.-W.P. and Oudh	9	96	26	5	
Punjab	4	47	8	...	
Central Provinces	...	...	...	...	
1871-72-1881-82.					
	Arts Colleges.	F.A.'s	B.A.'s	M.A.'s	
Madras	25	2,032	890	22	
Bombay	6	709	340	34	
Bengal	22	2,666	1,037	284	
N.-W.P. and Oudh	9	365	130	33	
Punjab	2	107	37	11	
Central Provinces	...	...	...	...	

We know that in 1882 the Indian Education Commission was appointed to make an enquiry into the conditions of education in India, and in a resolution, the Governor-General in Council announced the policy of the Government to give further encouragement to the Grant-in-aid system with the object of securing the gradual withdrawal of the State from high English education. "The resources of the State ought to be so applied as to assist those who cannot be expected to help themselves, and the richer classes of the people should gradually be induced to provide for their own education.

The following statistics collected by the Education Commission regarding attendance and the average annual cost of educating each student in English Arts Colleges in 1881-82, is interesting:—

	Departmental.		Aided.		Unaided.		Total.
	Colleges.	Students	Colleges.	Students	Colleges.	Students	
Madras ...	10	742	11	803	3	124	24 1,669
Bombay ...	3	311	2	139	1	25	6 476
Bengal ...	12	1,305	5	895	4	538	21 2,788
N.-W. Provinces & Oudh	3	172	2	157	1	20	6 349
Punjab ...	1	103	...	...	...	1	103
Central Provinces	1	65	...	...	...	1	65

Average annual cost of educating each student in English Arts Colleges in 1881-82.

Province.	Departmental.			Aided.			Unaided.		
	Totals	average annual cost.	Average annual cost to Provincial funds.	Totals	average annual cost.	Average annual cost to Provincial funds.	Totals	average annual cost.	Average annual cost to Provincial funds.
Madras.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Madras.	257 13 8	210 1 2	125 2 8	29 9 8	93 1 2	...	...	...	...
Bombay.	416 12 5	274 13 0	271 10 9	35 14 7	381 10 2	...	...	...	...
Bengal.	320 9 5	217 5 8	185 5 6	28 0 7	48 7 8	...	...	...	...
N.-W. P. & Oudh.	758 4 2	584 8 6	312 9 8	111 14 0	125 14 0	...	...	...	...
Punjab.	498 15 8	477 1 10	...	...	...	...	...	...	...
Central Provinces.	186 3 1	165 8 5	...	...	...	...	...	...	...

The Indian Education Commission dealt with the question of withdrawal of the State from a higher

education in a separate section of their report. The evidence of the witnesses examined indicated two lines of argument. On the one hand it was urged that the success of the Government institutions is a reason for maintaining them, that it was the duty of the State to maintain such institutions, that the cost of maintaining them bears an insignificant ratio to the whole expenditure upon education, that the withdrawal of Government from higher education would either mean the arrest of higher education or the surrender of such institutions into the hands of missionaries. On the other hand, it was urged that if ever education is to be adequate, it must be national and must be managed in a great measure by the people themselves.

The Commission after carefully considering these various points raised recommended "in the first place that in order to evoke and stimulate local co-operation in the transfer to private management of Government institutions for collegiate or secondary instruction aid at specially liberal rates offered for a term of years, whenever necessary, to any local body willing to undertake the management of any such institution under adequate guarantees of permanency and efficiency.

The question of Religious instruction in colleges was also one which engaged the serious attention of the Commission.

The subject is still of a controversial nature, but we cannot pass over the points raised in the memorable minute of dissent of the late Justice Kashinath Trimbur Telang. The Commissioners in their report said: "The evidence we have taken shows that in some provinces there is a deeply-seated and widely-spread desire that culture and religion should not be divorced, and that this desire is shared by some representatives of native thought in every province. In Government institutions this desire cannot be gratified." And therefore, with a view to remedy this the Commission made the following recommendations upon the subject of moral teaching:—

"That an attempt be made to prepare a moral

text-book based upon the fundamental principles of natural religion, such as may be taught in all Government and non-Government colleges.

"That the Principal or one of the Professors, in each Government and Aided college, deliver to each of the college classes, in every session, a series of lectures on the duties of a man and a citizen."

Mr. Telang's minute of dissent is of so striking a quality, so noble, forceful and weighty that we cannot resist the temptation of quoting a few extracts from it. "If collegiate education is to subserve one of its most important purposes, and is to cultivate the intelligence so as to enable it to weigh arguments and form independent judgments, then these moral lessons present an entirely different aspect. At the stage, it is almost entirely unnecessary to instruct the intelligence while it is of great use to discipline the will and cultivate the feelings. The proposed lectures will, I fear, have little or no effect in this latter direction; while in some individual cases, their effect in the former direction, being meant to operate not on the intellect but on conduct, may be the reverse of that which is desired, something like that on the Cambridge scholar, about whom I read many years ago, whose first doubts about the divine character of Christianity were said to have been roused by a study of 'Paley's evidences.' That sense of moral responsibility in man which impressed Kant with the same awe as the starry heavens inspire can receive no strengthening from the lectures on the duties of man, any more than the awe which the starry heavens inspire can be produced by lectures on the rings of Saturn or the phases of the moon. Such strengthening must come from the emotions and the will being worked upon by the histories of great movements, the lives of great men, and the songs of great poets. It must come from the training of the will and the emotions by the actual details of academic life, by the elevating contact with good professors and fellow-students, by the consistent engagement of the attention on the ennobling pursuits of literature, science, and philosophy; by the necessity, so often felt, 'to

scorn delights and live laborious days;' and even in our very modern State colleges of this country, though on a very humble scale, by 'that mass of continuous traditions, always powerful and generally noble,' of which Mr. Gladstone spoke so eloquently in his inaugural address to the University of Edinburgh."

His objections to lectures on the duties of a citizen are noteworthy. He said: "If the Professor's lectures tend to teach the pupils the duty of submission to the views of Government without a murmur of dissatisfaction, there is sure to come up a set of Liberal Irreconcilables, who will complain that Government is endeavouring to enslave the intellect of the nation. If the Professor's lectures are supposed to lead in the opposite direction, there will be some Tory Irreconcilables ready to spring up and say, even more loudly and quite as erroneously as they are saying it now, that the colleges supported from State revenues are hot beds of sedition."

The recommendations of the Commission met with scanty support from the local Governments and the Government while considering the second part of Mr. Telang's argument unanswerable expressed a doubt as to whether any moral text-book as is proposed could be introduced without raising a variety of burning questions.

COLLEGES IN THE UNITED PROVINCES.

Sir William Muir, Lieutenant-Governor of the United Provinces, opened the Central College in a hired building in 1872. The foundation-stone of the Muir College was laid in 1873, and the College was opened by Lord Northbrook in 1886. In 1902 there were 17 first grade colleges of the Allahabad University, eleven situated within and six without the United Provinces—1 at Allahabad, 2 at Lucknow, 2 at Agra, 1 each at Benares, Cawnpore, Bareilly, Meerut, and Aligarh, and outside the United Provinces, 3 are in Rajputana, 2 in Central India and 1 in the Central Provinces.

The 11 colleges in the United Provinces with

the exception of Meerut College (founded in 1892) existed before the incorporation of the Allahabad University and when the University was founded 9 colleges were affiliated to it. In 1889 the Agra College was affiliated followed by 2 Native State Colleges in 1890, another Native State College in 1891 and the Christ Church College, the Meerut College, the Isabella Thoburn College in 1892. With the exception of Muir Central College and Canning College, all the colleges began as schools. Of these 11 (eleven) colleges, 2 belong to Government, 3 are managed by local Committees, three are missionary colleges, two are Indian colleges and one is a college for ladies. There were fifteen second grade colleges—2 at Allahabad, 1 each at Fyzabad, Almora, Agra, Benares, Gorakhpur, Lucknow and Landour, 3 at Mussoorie, and 2 at Naini Tal. With the exception of the Central Hindu College at Benares all started as schools.

The Indian Universities Act, 1904, came into operation within the territorial limits of the Allahabad University on the 1st October, 1904. Definite areas had been assigned to each University to serve as the field of its labours. The population served by each University is as follows:—

Calcutta, 95 millions; Bombay, 27 millions; Madras, 63 millions; Allahabad, 82 millions; Punjab, 31 millions, out of a total of 298 millions. Thus the University of Allahabad is fairly entitled to nearly $\frac{1}{3}$ of any grant set aside for the promotion of University education. Accordingly, out of the first annual grant of 5 lakhs, Rs. 1,33,000 were allotted to the Allahabad University.

The new Senate consisting of 60 Fellows nominated by the Chancellor and 15 elected by the old Senate, by the newly nominated Fellows, and by the Faculties, in addition to the *ex-officio* Fellows of the Act, was declared to be constituted in accordance with the provisions of the Act on the 12th November, 1904. The first meeting of the Senate was held on the 14th January, 1905; the new regulations drafted by

the Sub-Committee, were considered by the Senate at the meeting held on the 12th April, 1905 and the 3 following days, and were later on sanctioned by the Government.

The Hislop and Morris Colleges at Nagpur, the Canadian Mission College, the Holkar College, Indore, which were formerly attached to the Calcutta University were granted affiliation to the Allahabad University. The Central Hindu College was affiliated to the B. Sc. degree. The Ewing Christian College, Allahabad, was affiliated to B. A. and B. Sc. standards, and Jaipur Maharaja's College to the B. Sc. standard.

HIGHER EDUCATION IN 1886 AND ONWARDS.

The following statistics from Sir Alfred Croft give us an idea of progress in higher education:—

Province.	1881-82.		1884-85.		1895-96.	
	No. of Colleges.	Students.	Colleges.	Students.	Colleges.	Students.
Madras	25	1,694	30	2,515	80	2,068
Bombay	6	475	6	802	8	1,041
Bengal	22	2,745	25	2,779	28	2,998
N.-W. P. and Oudh	6	349	11	385	13	448
Punjab	1	108	2	225	2	307
Central Provinces.	2	67	3	56	4	709
Burma	1	3	1	18	1	20

ARTS COLLEGES BY PROVINCES.

Province.	1886-87.	1891-92.	1896-97.	1901-02.	1906-07.	1911-12.
Madras	31	35	37	40	38	35
Bombay	9	9	10	10	10	11
Bengal	27	34	38	44	54	52
United Provinces	12	12	16	26	21	21
Punjab	3	6	8	12	9	10
Burma	1	1	2	2	2	2
Eastern Bengal and Assam.	...	...	1	2	11	10
Central Provinces and Berar	3	3	3	3	3	4
N.-W. P. Province	...	...	...	1	1	1

PUPILS IN ARTS COLLEGES.

Province	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	1893-94.
Madras	2,979	3,086	3,069	3,048	3,203	3,318	3,537	3,380
Bombay	955	1,020	1,179	1,229	1,269	1,382	1,572	1,504
Bengal	3,215	4,494	5,168	4,862	5,282	5,225	5,448	6,240
N.-W. P. & Oudh	478	687	699	981	1,194	1,811	2,408	1,520
Punjab	819	807	822	858	839	862	569	797
Central Provinces	100	134	158	162	213	282	249	386
Burma	14	80	27	28	25	44	46	76
Assam	...	...	...	...	...	...	18	25

Province.	1894-95.		1895-96.		1896-97.		Average for five years.			Number of boys of school-going age of whom one was attending an Arts College.		
	1887-88 to 1891-92.	1892-93 to 1896-97.	1887-88 to 1891-92.	1892-93 to 1896-97.	1887-88 to 1891-92.	1892-93 to 1896-97.	1887-88 to 1891-92.	1892-93 to 1896-97.	1887-88 to 1891-92.	1892-93 to 1896-97.		
Madras.	3,185	3,400	3,540	3,284	3,398	769	693	766				
Bombay.	1,658	1,669	1,064	1,205	1,489	1,877	1,574	1,982				
Bengal.	6,122	6,193	5,884	5,000	6,078	1,584	1,050	858				
N.-W. P. & Oudh.	1,654	1,524	1,446	954	1,510	7,205	2,781	2,520				
Punjab.	930	998	1,101	867	888	4,801	3,654	1,725				
Central Provinces.	387	341	291	177	155	8,741	4,207	3,889				
Burma.	71	72	80	80	69	21,382	13,252	7,286				
Assam.	19	22	27	...	22	...	...	15,588				

Province.	Number of students in Arts Colleges.			Number of boys of school-going age one of whom is in an Arts College.		
	1901-02.	1906-07.	1911-12.	1901-02.	1906-07.	1911-12.
Madras ...	3,779	4,687	4,989	755	608	625
Bombay ...	1,941	2,747	3,719	1,029	781	577
Bengal ...	8,150	5,190	9,716	711	752	427
United Prov- inces ...	1,490	2,241	3,824	2,563	1,218	803
Punjab ...	1,244	1,508	2,589	1,819	1,027	620
Burmah ...	148	135	324	5,086	3,017	3,071
Eastern Ben- gal and Assam ...	97	1,197	2,989	4,645	1,965	888
Central Prov- inces and Berar ...	282	274	608	3,109	3,597	1,916
Coorg ...	...	...	...	...	...	...
N.-W.F. Prov- ince ...	17	22	38	10,229	7,904	4,666

Expenditure on Arts Colleges, English.

Province	1886-87.	1891-92.	1896-97.	1901-02.	1906-07.	1911-12.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bombay	2,49,884	814,300	369,524	850,000	1,67,000	534,000
Bengal	5,41,971	707,105	747,764	825,000	808,000	1,265,000
N.-W. P. & Oudh	198,594	285,180	348,821	425,000	521,000	856,000
Punjab	69,412	108,986	122,421	175,000	234,000	384,000
Central Provinces	38,282	44,753	49,768	...	70,000	126,000
Lower Burma	39,658	4,2781	72,471	...	78,000	132,000
Madras	472,526	554,254	621,881	675,000	654,000	1,011,000
Assam	...	...	4,100	...	...	...

Proportionate Expenditure on Collegiate Education from Public and Private funds in 1886-87 and 1891-92.

Province.	1886-87.		1891-92.	
	From public funds.	From private funds.	From public funds.	From private funds.
Madras	44.9	55.1	48.7	51.3
Bombay	51.4	48.6	51.4	48.6
Bengal	67.2	32.8	54.9	45.1
N.-W. P. and Oudh	73.0	27.0	62.4	37.6
Punjab	68.7	31.3	66.4	33.6
Central Provinces	55.1	44.9	44.4	55.6
Lower Burma	98.6	1.4	94.2	5.8

The study of the figures shows that the rate of increase is greatest in those provinces in which University education had made least progress before 1887. The high rate of increase in the N.-W. P. and Oudh is due to the establishment of the University of Allahabad.

By the courtesy of the Editor, THE HINDUSTAN REVIEW, Allahabad.

SIR JOHN WOODROFFE ON OUR STUDENTS.

That was a notable address which Sir John Woodroffe delivered at the Anniversary Meeting of the Friends' Sunrise Literary Club. It was a happy idea of the Club to have got aim to preside. Sir John Woodroffe is a warm friend of the people; and his love is based upon no maudlin sentiment, but upon deep and intimate knowledge of the ancient learning and culture of India, especially on its spiritual side. He knows India of the past, such as few Englishmen know it; and to be familiar with the past of an ancient people is to know the inherited instincts of the present generation and the potentialities of the future. Thus the play of the imagination is controlled by knowledge, and imagination thus guided and restrained cannot go wrong. Sir John Woodroffe, with his close knowledge of our people and of their past, does not think so badly of our students as some Englishmen do. They are not a contaminated set by any means. They have stuff in them which under proper guidance and control, would be most serviceable to the country. In addressing the young men of the Club, Sir John Woodroffe said:—

"He felt more happy when in the company of students than in most places; for youth with its 'balabuddhi' to which their Sanskrit address referred was both sincere and hopeful—the two qualities which a large number of people lost as they grew up through their ambitions and disillusion. Only a week ago an Indian friend (perhaps under the influence of the abnormal heat) had said to him:—"This is a dead country," to which he replied, that only those who are dead, believe themselves to be so, and asked "Is the Indian student dead?" His friend had to admit that his hopes were there. But he (Sir John Woodroffe) said his confidence was there. The students had been much criticised of late: but if he judged them right, they would not be depressed over it. For himself he was not alarmed

at their condition. Nothing in the world was perfect nor wholly worthless as the Sanskrit proverb ran. Every good quality carries with it the liability to certain defects. The broad way of looking at matters was to see whether the qualities outweighed the defects. The students had faults (who has not?) but these were connected with certain qualities of energy and self-respect which they had acquired and which are in themselves praiseworthy. Of course, all wished the defects away: but speaking for himself, he would rather they had these faults than that they should be torpid, servile and lacking in self-respect. For himself he saw in the students the commencement of a future of great worth."

We share with Sir John Woodroffe the confidence he has in our students. Sincerity and hopefulness are sovereign qualities in life, and it is the golden heritage of the young. The man who through life retains these qualities, despite disappointments and disillusion, retains the sunshine of youth, amid the darkening gloom of age. Ours is not a dead country. It retained life and vitality amid the decadence of age and the vicissitudes of fortune. Greece, Rome, Babylon, Egypt, Persia, with their long record of civilization, have disappeared. India alone remains, lifting up her head, amid the militant forces of modern life. Where is the people or the culture which has shown such tenacity of life? India is not dead, but she lives; and will live with a new life in the ages yet unborn. She has been the teacher of humanity in the past; she may yet play the same exalted role in the future. That is the faith which inspires Sir John Woodroffe and men like him. The ancient spirit of India has widened their vision and has made them see visions and dream dreams, not vouchsafed to the ordinary man of the world. And if India is to be great, she will be great through her young men. The students may have their faults; but who have not? The sun has its spots. Balance the good with the evil, and

the good will prevail. Sir John Woodroffe very properly advises our young men not to neglect foreign culture, but to assimilate it to the national life. Other nations have to teach us many things, as we have to teach them. Let us learn all that we can from them. But above all, let us as be Indians in mind, in heart and soul, excited by modern civilization but having our moorings firmly fixed in the culture and the civilization of our fathers. That is the sum and substance of the lesson which Sir John Woodroffe enforced in his address before the young men of the Literary Club.—*The Bengalee*.

EDUCATIONAL RECONSTRUCTION.

It is not untimely, but, on the contrary, most urgent, that those definitely responsible for Education in this country should be pressing for the immediate appointment of a Royal Commission on "Education after the War." When the house is on fire the first and most imperative necessity is to extinguish the conflagration. But such of the bystanders as see that a wall is tottering, and will presently overwhelm in a new disaster those who are momentarily engaged in putting out the fire, are right in calling for an instant taking of precautionary measures; and all the more so if the immediate action required can be undertaken by those whose age and physical condition do not permit them to join the firemen in their work, and who are, in fact, now merely encouraging their efforts at a safe distance. Nothing is more certain than that as soon as the war is over, a whole host of educational problems will besiege the Government in a way not to be denied. Large parts of our educational machinery have been knocked to pieces by the war, and others have suddenly been revealed as decrepit. Unless the Prime Minister can find time now to appoint a Royal Commission, or to set going some other machinery for discovering and elaborating a scheme of educational reconstruction, the exigen-

cies of Peace will find the Government for the time being—within those precious weeks between "the November Cabinets" and the opening of the Session which see the gestation of so much of our legislation—totally unable to cope with the situation. Now is the time for some of the non-combatants and men over military age to be set to work. They also serve who only search and think.

The moment is unique. For more than a couple of centuries, at any rate, education in this country has been continuous, term after term. Oxford and Cambridge and such other institutions as were at work have never failed to receive, session after session, their streams of recruits. Now, as Mr. H. G. Wells and other observant writers have pertinently remarked, our Universities, our medical schools, our technical colleges, even the tops of our secondary schools and artisan institutes, have not only been nearly emptied of their male British students, but their activities are remaining very largely suspended for a period already running into a good many months. The machine has stopped. What is more, the students now in khaki are in the last degree unlikely to resume their interrupted studies, except perhaps formally in order to qualify for some degree or diploma; and now that the lads of seventeen and eighteen are being diverted, the interregnum at places of higher education, so far as the hitherto uninterrupted stream of British male students is concerned, will continue for some time after the conclusion of the war. Even if we all wished things to be resumed as before, we shall find that there is much that cannot be set going again. Some reconstruction has become imperative of our Universities; of the relation between them and the secondary schools on the one hand, and the institutions for vocational training on the other; of their exiguous financial resources in view of the task before them; of the subjects they teach and fail to teach; and, above all, of the streams or avenues or ladders—what-

ever may be the metaphor to be used—by which these institutions of higher education are supplied with recruits. Instead of a beggarly score or so of thousands of full-time undergraduates in all faculties in the whole United Kingdom—the city of Tokyo alone claims to have a hundred thousand college students within its wide area—we shall need to multiply the number tenfold, with a corresponding widening of the scope of their professorial work. To build and substantially endow for ever a modern University, with laboratories and libraries and professorial chairs, costs in capital outlay approximately as much as one fully-equipped Dreadnought. The First Lord of the Admiralty is accustomed, in peace times, to come to the House of Commons, and propose a vote for two, four or eight new Dreadnoughts in a single year. It may be unthinkable that the Minister for Education should ever ask in the same way even for one more University or technical college—possibly quite as important a factor in National Defence as a Dreadnought. But at least we may contemplate a Minister for Education charged with an equally comprehensive and an equally responsible survey and co-ordination of the national service committed to his care, in relation to national needs, as we have grown accustomed to in the case of the Navy.

But Universities and other institutions of higher education, whether predominantly literary, scientific, commercial, or technological in their scope, are themselves dependent on the educational machinery of secondary grade, by which alone they can be supplied with adequately prepared students. Where do we stand with regard to our provision of secondary schools, whether predominantly literary, scientific, commercial, or technological in their "bias"? We can neither multiply our doctors and chemists, our engineers and economists, our agricultural experts and foresters—let alone our schoolmasters and professors—nor yet give them the qualifications indispensable for their work unless we

can greatly increase the absurdly small proportion of the population to which alone we now extend the opportunity for secondary studies. Nor would it suffice merely to make our secondary schools free from fees. In those parts of the United States which are proud to have their "High Schools" free, the proportion of the population obtaining more than primary schooling is often no greater than it is in London or Leeds. It remains doubtful to what extent even Mr. Carnegie's munificent "freeing" of the Scottish Universities has increased the numbers of those who get access to them. It is the cost of abstention from wage-earning that is prohibitive—not the college fees. Alike in the secondary and the tertiary grades, the only effective way of opening up education to the clever children of the unpropertied classes is by a really magnificent multiplication of maintenance scholarships.

Even then we have left on our hands the mass of each successive generation—of the citizens and electors to be—for whom, for long years to come, earning a living must begin before they are halfway through their teens. Lord Haldane* is right in perpetually warning us that our Evening Classes and so-called Continuation Schools are mainly shams, where (as the London Education Committee was lately told) grants are earned by "tired teachers instructing tired pupils." He does well, too, to remind us of how much more Germany had already achieved before the war in securing, for a majority of all the young workmen in skilled crafts, efficient instruction in trade schools "held in the employer's time." But Lord Haldane knows full well that his constant reference to Dr. Kerschensteiner, of Munich, does not provide even the skeleton of a Bill that Mr. Henderson could ask the Cabinet to adopt. It must be one of the first tasks of a Royal Commission to work out

* "The Student and the Nation," (Foundation Oration, 1916, at University College Union Society.)

a practical plan applicable to all the various industries of the Kingdom, by which—possibly by some such heroic measure as an adaptation of the “half-time” sections of the Factory Acts—we can ensure that every boy, if not also every girl, between fourteen and eighteen, shall be protected against more than thirty hours a week in the factory, or more than nine months in the year on the farm, and enabled to put in the remaining time at a deliberately planned four years’ course of adolescent training, physical and technological. How else can we save our boys from physical wreckage? How else can the nation get its workmen effectively trained for the newly arranged work of the machine shop of the future? Extend this compulsory half-time system to twenty-one, with suitable summer camps and manœuvres, and the nation has to its hand the means, in the best possible way, of giving military training to its whole population, without breaking home ties, without interruption of industry and without the evils of barrack life.

We have still to think of the seven millions in the elementary schools, with all the shortcomings in both physical care and mental training that the war has revealed. We have not even got all the children of the United Kingdom into school. Ireland is admittedly in all respects, our worst administrative failure and over large areas of Ireland there is to this day no compulsory schooling of any sort. Over an extensive part of that island it is still lawful for a parent or an employer “to set to work children of any age,” his own or other people’s, for any number of hours, continuously from year’s end to year’s end, in any industry, under any conditions whatsoever, in any place that does not happen to be technically a factory or workshop or mine within the definitions of the Factory and Workshops or Mines Regulation Acts. Can we afford to allow this barbarism to continue?

Yet more than laws or curricula, buildings or methods of instruction, it is the spirit that is

lacking. What was it in our education that has made us consistently “fumble” the war; that led us to spend millions a year on an Army that was revealed, in a flash, heroic as it was, to be almost ludicrously unadapted to the task before it; that gave us administrators who did not realise that lard and glycerine and soap were all potentially high explosives, and Ministers who could not distinguish between Alexandria and Alexandretta; that resulted in the catastrophes of Suvla Bay and Kut; that prevents us even now from finding subalterns able to do the common staff work with French efficiency; that made it seem natural and inevitable that nearly all the officers of the Dublin garrison should be away at a race-meeting on Easter Monday? May not the Royal Commission possibly infer that some at least of our battles were lost on the playing-fields of our public schools and our Universities.—*The New Statesman*.

Reviews and Notices.

THE ART OF WRITING, BY SIR ARTHUR QUILLER COUCH, M. A. (THE CAMBRIDGE UNIVERSITY PRESS.) 7s. 6d. net.

Having read the periodical summaries of Sir Arthur’s lectures on the *Art of Writing* delivered before the University of Cambridge, we opened the volume under review with great interest and eagerness, in the expectation of profit as well as pleasure. But we must confess to a sense of disappointment at having been able to realise only one of the two hopes. The book has provided us with some hours of pleasant reading. The author’s fine sense of humour relieves the tedium inevitable to the treatment of such subjects, and his absence of conventional rigidity saves him from pedagogic dullness. But when we come to examine the question, “How far have we advanced in our knowledge of the art of writing?” or “How does Sir Arthur Quiller Couch help the student or teacher of composition?” we are afraid, the answer is not particularly encouraging. The author may turn round and tell us that it is not possible to teach the art of writing, an opinion which has the support of several distinguished writers, but a book on *The Art of Writing* must let us into the secrets of the art in some

measure, and give us a sense of increased confidence on the completion of its reading. And then, Sir Quiller Couch himself describes his book on page 87 as a course in First Aid to Writing. We are afraid Sir Quiller Couch cannot claim to have done that, an ideal which to the educationist is perhaps the most important aspect of such a book.

The first few chapters have however some direct bearing on the subject and the ideas are presented with remarkable freshness and originality. We cannot say we are impressed very much by what the Professor has to say. On the *Capital Difficulty of Verse*, On the *Capital Difficulty of Prose* and on the *Differences between Verse and Prose*. The only useful portion of these chapters is perhaps the incidental treatment of the art of versifying and its benefits. Exercises in Versification have now fallen into disrepute and Sir Quiller Couch has done well in drawing attention at the seat of an ancient University to their manifold uses. The Chapter on the *Practice of Writing* has some valuable advice on what may be looked upon as four of the cardinal virtues of good Composition: Perspicuity, Accuracy, Persuasiveness and Appropriateness. The most valuable chapter in the book is the one entitled *Interlude*, on Jargon, with its robust common sense and penetrating criticism of redundancy and affected variation in writing. The undergraduate essay-writer who would insist on calling Byron by a different name every other time he would mention him, is the subject of much well-deserved ridicule. “But my undergraduate has a blushing sense that to call Byron Byron twice on one page is indelicate. So Byron starting bravely as Byron, in the second sentence turns into ‘that great but unequal poet,’ and thenceforward I have as much trouble with Byron as ever Telemachus with Proteus to hold and pin him back to his proper self. Half way down the page he becomes ‘the gloomy master of Newstead’: overleaf he is reincarnated into the ‘meteoric darling of society’: and so proceeds through successive avatars—the archrebel, ‘the author of Childe Harold’, ‘the apostle of scorn’, ‘the ex-Harrobian, proud but abnormally sensitive of his club foot’, ‘the Martyr of Missolonghi’, ‘the pageant-monger of a bleeding-heart’.

A MANUAL OF ELEMENTARY BOTANY FOR INDIA, BY RAO BAHADUR K. RANGACHARYA, M. A. (THE GOVERNMENT PRESS: MADRAS). Rs. 2.
Rao Bahadur K. Rangacharya who is already well-known in our Presidency as an enthusiastic

and well-informed exponent of Botany, has laid students of that science under deep obligation by the publication under notice. It is a very successful attempt at the presentation of botanical knowledge with special reference to India. The book is furnished with a large number of illustrations, the language is an excellent combination of scientific accuracy with popular interest and there is a commendable thoroughness about the whole work. The book is got-up very neatly by the Government Press, Madras, and considering the size of the book and the large number of illustrations, it is phenomenally cheap for Rs. 2. We have no hesitation in saying the book deserves wide circulation, not only in our schools and colleges, but also among all people interested in the subject of Botany in India.

ENGLISH VERSE COMPOSITION, BY ROBERTS AND PRATT. (EDWARD ARNOLD). 2s. 6d.

This is just the kind of book needed to rouse interest in a valuable exercise which unfortunately finds very little practice in Indian schools and colleges, the art of versification. In a review of the recent book of Sir Quiller Couch on the art of writing, which appears in the current number of this journal, attention is drawn to the great educational value of verse composition. The present volume is sure to prove a very valuable aid for the purpose of giving such training. There is an intelligent classification of the various aspects of versification and the pupil is taken step by step through all the stages. We have great pleasure in recommending the book to all teachers of English and we would impress on them the high value of the exercise, by quoting the following paragraph from the book:

The special advantages claimed for Verse Composition are:—

- (1) It engenders a love of reading poetry, and give pleasure inasmuch as it satisfies the rhythmic instincts in the young.
- (2) It enlarges the pupil’s vocabulary and helps him to discriminate between the different shades of meaning in words;
- (3) It refines the feelings;
- (4) It fosters originality and strengthens the imagination; and
- (5) It improves the writer’s power of writing prose.

THE PURPOSE OF EDUCATION, BY ST. GEORGE LANE FOX PITT. (CAMBRIDGE UNIVERSITY PRESS). 2s. 6d. net.

Mr. Pitt's book is more a rambling discussion of some problems of educational psychology, than any useful attempt at the exposition of the *Purpose of Education*. We are not prepared to enter into the value of either the new psychological technology introduced by him or into the abstract speculation on the subject which forms the bulk of the volume. We must confess we have not seen much of application of the psychological principles to the practical work of education, and we have had to close the book without understanding much of the author's views on the *Purpose of Education*.

PUBLICATIONS RECEIVED.

The Muslim Fast, by Anwar-ul-Haqq. Madras: C.L.S. 1½ as.

A Model Survey. Madras: C.L.S. 1 anna.

The College St. Mark, by C. B. Young, M.A. C.L.S.: Madras. 12 as.

The Tragedy of Macbeth, by Rev. J. C. Scrimgeour, M.A. London: Macmillan. 2s. 6d.

A Manual of Practical Physics, by H. E. Hadley, B. Sc. London: Macmillan. 3s.

Sir Rabindranath Tagore: His Life, Personality and Genius, by Mr. K. S. Ramasami Sastri, B.A., B.L. Madras: Ganesh & Co. Rs. 3.

Indian Educational Notes.

The Mysore University.—The University Entrance Class will be opened in the following High Schools in the optional subjects specified against each:—

Government High School, Bangalore.—Mathematics, Physics, Chemistry, Natural Science, History, Logic, Elementary Economics, Sanskrit, Persian.

Maharaja's High School, Mysore.—Mathematics, Physics, Chemistry, History, Logic, Elementary Economics, Sanskrit, Persian.

Government High Schools, Shimoga and Tumkur.—History, Logic, Elementary Economics, Sanskrit, Persian.

2. (a) Candidates who have been declared eligible for admission into Colleges by the S. S. L. C. Board;

(b) Candidates who have passed the Matriculation examination of an Indian University; and

(c) The students of the Junior Intermediate Class of 1915-16 who are not qualified for promotion to the Senior Class, are eligible for admission into the University Entrance Class.

3. The Junior Intermediate class of the Madras University will be continued at the Central College in Optional groups (i) & (ii) and students may join this class instead of the University Entrance Class in the High Schools. For the benefit of these students, the Senior Intermediate Class of the Madras University will be maintained in 1917-18.

4. The Senior Intermediate, the Senior B.A. and the 2nd and 3rd year honours classes of the Madras University will be continued in both the Colleges. There will be no instruction given in group (iii) (History and Logic) in the Senior Intermediate class in the Central College, Bangalore.

5. There will be no Junior B.A. class of the Madras University in either College; but candidates who have passed the Intermediate Examination of the Madras University will be admitted into the 2nd year class of the Mysore University.

6. The optional subjects in which instruction will be given at Mysore are History, Economics and Political Science, Ethics and Political Philosophy, Sanskrit and Persian; and at Bangalore, Mathematics, Physics, Chemistry, Zoology and Geology.

7. For those students who have been taken into the 2nd year class after passing the Intermediate examination of the Madras University, composition in Kannada, Tamil, Telugu or Hindustani or translation into English from Sanskrit, Persian or French will be substituted in place of the compulsory second language.

8. Applications for admission into the University Entrance Class should reach the Head Masters of the High Schools by the 27th instant. Applications for admission into the College classes should reach the Principals of the Colleges by the same date. Lists of admissions will be published on the 1st July, (classes will open on 3rd July) and the

selected students will be required to present themselves before the 7th of July at the institution to which they have been admitted.

Professors as Examiners.—In the Punjab University the question of appointing professors as examiners recently came up for consideration before the Syndicate and they have accepted the proposal that in the case of the degree examinations for written papers including honours papers, no examiners should be a teacher in a College affiliated to the University, except where a Board of not less than three examiners was appointed, in which case each Board should, if possible, contain one member from a model college. It appears that some time back the attention of the Syndicate was drawn to certain drawbacks and difficulties in the appointment a large proportion of the examiners from among the teachers and others resident in the Lahore city and the addition of more outside examiners was recommended. The *Lahore Tribune* recognising the advantages of having professors as examiners, says that "it is impossible, however, to conceal the fact that there is an impression that a good deal depends on the eccentricities of particular examiners, and that in certain cases instead of reducing the uncertainties of examination to a minimum, such a course involves a condition just the opposite, in which the candidate feels himself entirely at the mercy of an examiner whom he knows and who

knows him and who can entirely make or mar his fate." The *Hindu* believes that such an impression prevails equally in Madras as well.

London University school examination changes.—Changes in the London University Senior School Examination are proposed: "General" is to take the place of "Senior" in the title, and the standard is to be lowered. At present the standard for a pass in each subject is that of the Matriculation Examination, although a pass can be obtained in a different combination of subjects. In the new examination the standard for a pass is to be lowered, an extra credit mark in specified subjects being required to qualify for a Matriculation certificate.

Government Women's College, Madras.—It is as significant as it is gratifying that, while the general percentage of passes at the last Intermediate Arts Examination of the University of Madras was 25, the Government Women's College had twelve passes out of fourteen candidates sent up for the examination, three being placed in the first class. This is a happy augury for the success of the B. A. classes which, we understand, are to be opened next term. The Government of Madras deserve to be congratulated on their persevering efforts to promote higher education among women.

The Educational Review.

The Report on the second year's working of the Madras College for Women which has just reached us is a record of

useful work of which any educational institution of such recent growth may very well be proud. When the Government decided to start the Madras College for Women there were probably pessimistic critics who thought that it could not meet with considerable success in a country in which higher education had made very little headway among women. But a perusal of the report is sure to dispel any such feeling. The college has shown steady increase in strength, in spite of the starting of another college for women in the city under Missionary auspices and there are one or two features of the progress of the institution which deserve special attraction. The number of Hindu students has increased considerably, from 14 to 21, and they now constitute nearly half the local strength of the college. What is more encouraging to note is that they have taken kindly to the College Hostel and they are now prepared to live in it, away from their parents or guardians, an aspect of self-reliance which is rather new to Indian womanhood. It is proof of the great usefulness of the institution, that it should have been able to attract girls from almost all parts of the Presidency, including Native States, even such distant parts as Ceylon and Cochin, Vizagapatam and Kurnool being represented on its rolls. We admit that the percentage of passes in public examinations must not be regarded as an absolute test of the value of the education imparted in an institution, especially in a college intended for women, but it is difficult

to withhold praise from the Madras College for Women, for the excellence of its results at the last Intermediate examination, as many as twelve having passed out of fourteen, with four in the first class—and that in a year in which there is quite a wail about “slaughtered innocents.” We heartily congratulate the talented Principal of the institution, Miss D. De La Hey, on the success which has attended her efforts and congratulate the Madras Government also on their recent decision to raise the status of the college to the first-grade.

This brings us incidentally to the fact that Madras is the only city in India in which the Government maintain a separate

college for women (and that does not look like the feature of a ‘benighted’ province) while in the other Presidencies they are no way near it. It was unfortunate that when the suggestion was made at a recent session of the Bombay Legislative Council, for the establishment of a similar college in Bombay, opposition should have come from such an eminent Indian educationist as Principal Paranjpye. What makes it more inexplicable is probably the fact that Principal Paranjpye is the Vice-Chancellor of the newly-started Indian Women's University at Poona. Strangely enough, he maintained it was “not necessary” and that it would be “a waste of public money!” Principal Paranjpye went on to say that as far as the Bombay Presidency was concerned there was no objection to girls attending the colleges open to men. We are prepared to make allowance for the progress of the Bombay Presidency in matters of social reform, but we know that as far as Hindu society goes

even in that part of Western India, there is still strong prejudice against women attending the same colleges as men. It is curious how Indian educationists themselves could display such want of recognition of the prejudices of their own people. Principal Paranjpye has attempted an explanation in the columns of the press, which is not more convincing than his speech. We are told that if this Arts College is to teach the same subjects as the ordinary Arts Colleges in the University “there is no necessity for employing a large and highly paid staff for teaching classes which are likely to be comparatively small.” We do not know if the prospect of drawing out a number of girls to pursue higher education, who might otherwise have not thought of it at all, is not enough compensation for the expense. As for the separation of courses of study for men and women, we have only to remind the Vice-Chancellor of the new Indian Women's University, that it is hardly necessary, possible, or even desirable, in the higher stages of education, as women take to it, for equipping themselves for professions like education and medicine where they need intellectual training of the same type as that of men.

When this number reaches the hands of our readers, the Fellows of the Madras University will have been called upon to exercise their votes to elect a representative to the local Legislative Council and we are anxious to remind them of the supreme necessity of using their franchise in the interests of the higher education of this Presidency. We have always thought it an anomaly that persons unconnected with education should

even aspire to represent the University in the Legislative Council and it therefore becomes our duty to commend the candidature of the Rev. George Pittendrigh, M.A., of the Madras Christian College. The fact of his being an educationist while his opponent is a member of the legal profession would be sufficient reason in itself to entitle him to the privilege of representing such an eminently academic body as the Senate of the Madras University. But his long experience of higher education in Southern India, his strong common sense, and sympathy with the highest Indian aspirations make him an eminently suitable candidate on the strength of his own intrinsic merits as well, and we hope the Electorate will do itself the honour of being represented by such a veteran in the cause of education. We have to add a word of special exhortation to the Indian Fellows of the University who are in the teaching line, to maintain the dignity of their profession. We have noted with keen regret from time to time that Indian educationists would not come forward to contest the seat and what is more humiliating, would even support a successful lawyer against an honoured member of their own profession. If they will not make an honest attempt to raise the prestige of their section of the community by aspiring to such a well-deserved honour as the representation of the University in the Legislative Council, they may at least save themselves the odium of helping members of other professions to get positions of trust and responsibility which belong to themselves by right. We will be told that the election of a European educationist would mean a constant vote against the popular side and we can only retort that the keeping of the prestige of one of the noblest professions in the world, to which

they have the honour to belong is a more important consideration than the addition of a vote to the side of a Government in a local Legislative Council. And in the case of the Rev. George Pittendrigh there is no such fear either, as any one may satisfy himself by a perusal of the proceedings of the Legislative Council during the last period. He has often voted on the popular side, has remained neutral in the voting upon a few contentious measures and has never been guilty of voting in favour of any measure obnoxious to the sense of the Indian community.

The new rules of the Syndicate, with regard to the admission of students into colleges have been put into force and the University has come out with the list of those eligible for admission into colleges, though Principals are still given the discretion of denying admission to students on the list. We do not propose saying any thing at present on the principles adopted as the basis of selection, which have in a way tended to bring back the main features of the Matriculation Examination, but we wish to draw attention to an aspect of the so-called 'discretion' exercised by the Syndicate in the case of those who have failed to get the required Presidency average in one of the five A and B group subjects. It was well that they selected some of them for admission into the College course, but there are still a large number of students who have not been declared eligible for admission into College classes for failing in a subject which they are not expected to study in the Intermediate course. Students who are to take the History group in the Intermediate course have not been able to get into the list because of their inefficiency in Elementary Mathematics or

Vernacular taken as second optional. We are willing to grant it is a useful educational principle to insist on a certain minimum percentage of marks in subjects whose importance has led to their inclusion in the compulsory course, but it does seem a pity that a student should be kept back from joining the College course for doing badly in subjects which do not possess the remotest connection with those which are to engage his attention in it, and also be compelled to read all the subjects again for another year.

The movement of the Mysore University is being pushed ahead and it will have come into existence at the beginning of the next month, the necessary legislative measures having just been passed. While we heartily congratulate the authorities of the Mysore University on the new educational scheme they have launched before the world, we should be failing in our duty if we did not draw attention to one or two possible temptations which beset their path, and to which there is always the danger of their succumbing either under the pressure of popular clamour or under the influence of self-delusion. Small Universities started under the auspices of such States run the risk of becoming self-contained units, incapable of responding to outside influences, and narrow in their intellectual outlook, unless special efforts are made to place them in contact with the outside world, and strengthen them by the importation, whenever necessary, of the best talent available. There has been heard in recent years an unequivocal demand in the State, of "Mysore for Mysoreans." We are not concerned with the wisdom, either of the demand or of the policy of yielding to it in the usual branches of administration. But

we are not prepared to recommend the adoption of such a policy in matters relating to the University. Nothing could be more suicidal to the intellectual advancement of a community than an attempt to be satisfied with the light afforded by people in the immediate neighbourhood and Mysore will do well to avail itself of outside talent without any hesitation, in the liberalising spirit which must characterise all true Universities. The mere presence of representatives of culture from the other parts of the country will act as a liberalising influence. Let us remember the special circumstances which shed such lustre upon the ancient University of Athens, and made it in Milton's words :

The eye of Greece, mother of arts
And eloquence, native to famous wits
Or hospitable, in her sweet recess,
City or suburban, studious walks and shades.

The secret of such glory lay, as Cardinal Newman has pointed out, in its having afforded facilities for a glorious brotherhood and citizenship of the mind which knew of no distinctions of creed, colour or race but was based entirely on a lofty pedestal of intellectual communion. "Masters as well as students," writes the Cardinal of Athens, "Come hither from all regions of the earth—as befits a University." How could Athens have collected hearers in such numbers, unless she had selected teachers of such power? It was the range of territory, which the notion of a University implies, which furnished both the quantity of one and the quality of the other. Anaxagoras was from Ionia, Carneades from Africa, Zeno from Cyprus, Protagoras from Thrace, and Gorgias from Sicily. Andromachus was a Syrian. Proeresius, an Armenian, Hilarius, a Bithynian, Philiscus, a Thessalian, Hadrian, a Syrian.....There was

no narrow jealousy, directed against a Professor because he was not an Athenian; genius and talent were the qualifications; and to bring them to Athens, was to do homage to it as a University.

Another possible danger, equally far-reaching in its consequences, lies in the temptation to lower the value of their degrees, by relaxing the rigour of examinations. Indian communities have yet to develop traditions of academic efficiency among them, and in Native States especially, they are apt to favour examinations which will pass as many as possible, and degrees which will be within the reach of one and all. Nor is there the possibility of any bold demand under such auspices for the stiffening of academic courses, once they go down below the level of efficiency. It must therefore be the constant endeavour of those entrusted with the work of the University, to maintain their courses of study and examinations at a high level of merit, so that a degree from that University may be looked upon with respect and not become a bye-word for educational slackness, delighting in easy passes at examinations. Of course, we do not at all mean the University examinations should be made so very difficult as is the case in the existing Indian Universities, particularly Madras. But all we mean is that examinations should be so conducted as to suit the present day conditions and requirements of the country.

In introducing the Mysore University Bill into the Legislative Council of that State, the enlightened Dewan, Sir Visweswarayya, to whom the origination of the scheme is largely due, appealed for sympathy and co-operation from the University of Madras, and we commend his remarks to the members of that body: "No one present here,"

he said, "can be unmindful of the debt of gratitude which generations of educated classes of this State owe to their *alma mater*, the Madras University, since its establishment nearly sixty years ago. I trust the mother University will on her side view with pleasure and pride the legitimate attempt of a daughter to set up a house of her own. It has always been the way of daughters, as they attain years of discretion, to look forward to the time when they could be mistress of an independent household." We have heard some petulant criticism passed by the Syndicate of the Madras University, on the scheme proposed by the authorities of Mysore and we can only hope it will not be repeated, though we are anxious at the same time, that the University of Madras should not be forced under official pressure, to any recognition of the degrees of that University without being convinced of their value.

If information conveyed in the *New India* is correct, a lamentable instance of the observance of racial distinction in educational matters has happened in the Sydenham College of Commerce in Bombay. Prof. Mazamdar has been indirectly forced to resign his appointment in favour of a new European and it must not go without a protest from those interested in the cause of Indian education. We would not look upon it and other such instances of unhealthy racial distinction, with any strong feeling, but for the fact that it has an educational aspect as well. The denial of higher educational experience to Indians is a serious grievance, and it has been responsible for keeping out the better talent of the country from seeking the educational services. It seems a strange anomaly that while the Indian should be allowed to rise to the highest positions of

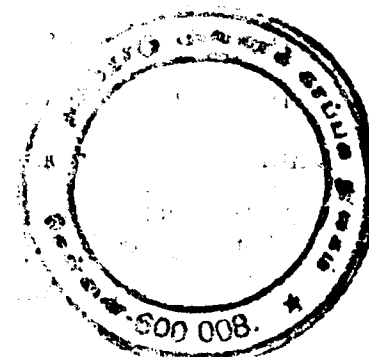
trust and responsibility in other departments of Government, he should be expected to be content to play a subordinate part in a department like the Educational, so closely associated with national well-being and prosperity. The Indian could be a Judge of the Supreme Courts of Judicature in the country, he could even rise to be Chief Justice; he could be a member of the Executive Councils of the various Provinces or even the Imperial Government; he might sit in judgment over the Government of India by being on the Council of the Secretary of State for India, but he must not aspire to be Principal of a Presidency College, or the Director of Public Instruction of the smallest of Indian Provinces, presided over by a Chief Commissioner! There is much talk of the angle of vision with regard to Indian matters having changed in England as the result of England's appreciation of India's splendid services in the present war, but we do not seem to be anywhere near a practical realisation of its effects.

We must extend a cordial welcome to the movement which has originated in Calcutta to organise corps of Boy Scouts for Indian boys. The Young Men's Christian Association of Calcutta has taken the matter on hand and judged by the other schemes with which that body has concerned itself it is bound to be a success. We have looked at the draft scheme and note with pleasure that modifications to suit the altered circumstances of Indian life have been introduced with great care and discrimination. The movement is to be called the *Boy Shikari Movement* and the uniform of the Boy Shikari is to consist of a khaki shirt and shorts and khakhi coloured turban. The virtues which the Boy Shikari must strive to embody in his life are summarised in a series of twelve laws which emphasise trust, loyalty, helpfulness,

friendliness, courtesy, kindness, obedience, cheerfulness, thrift, courage, cleanliness and reverence. An interesting aspect of the Boy Shikari movement will be that the groups may be named after the illustrious leaders of the country, for example, the Gokhale group, the Naoroji group and so on. To those who are familiar with the achievements of the Boy Scout movement in Europe, its value in fostering qualities like self-reliance, courage and patriotism will be apparent, and we trust this similar movement in India will serve to train Indian boys to manly and dignified citizenship.

The preposterous theory has been started by Principal Moore in the *Teaching of English Literature*. Weal that only Britishers can be effective teachers of English Literature in India, and in spite of our reluctance to discuss questions which have a racial bearing we must expose its hollowness, if not to disturb the gentleman from his pathetic self-delusion, at least to prevent a further spread of that mischievous opinion. We are told that only the Britisher could steep himself in the spirit of his culture and a person not belonging to that race cannot be a useful exponent of that culture in India. We believe Principal Moore has been in this country for some years and if in spite of that

he has not realised that Indians have assimilated Western culture in a wonderful manner as may be seen from the new inspiration in every department of national activity, we can only imagine he has gone about his work with his eyes closed. Since the days of Ram Mohan Roy, there has not been one department of national life which has not been invigorated and refreshed by the impulse of British Literature, and if the Indian can catch its spirit and mould his character and action with it, he can certainly be expected to communicate it to his own people much better than a foreigner like Principal Moore. Even granting for argument's sake that he cannot assimilate it so effectively as to make it real and capable of communication to others, the only conclusion to which we could come then, is that there is no use in attempting to teach it at all, and gentlemen like Principal Moore must immediately withdraw from their work of teaching English Literature and leave it entirely in the hands of those who believe that English Literature can be taught to Indians to some useful purpose. It is somewhat amusing to see the opinion receive support from the Indian Editor of the *Social Reform Advocate* and we can only extend our sympathy to him in his pathetic position, seeing that he is himself engaged in the work of teaching English Literature to Indian students.



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A PLEA FOR AN INDIAN EDUCATIONAL CONGRESS.

(By A. JAGANNATHA DAS, M.A.)

[Revised and reprinted from "THE HINDU."]

The question of education may be viewed from two different points of view. It may be viewed, either from the point of view of its extensivity, or from the point of view of its intensity. In its extensive aspect it deals with the spread of elementary education among the masses with a view to their literacy. In its intensive aspect it deals with University education with a view to specialisation in various branches of knowledge.

These two aspects of the question of education are only differentiated for purposes of study. Each one of them is, as it were, abstracted from the other which constitutes its natural setting or context, and with which alone it has any useful function to discharge, with a view to understand the purpose served by education in social progress in that particular aspect as distinguished from its function in its other aspect. But as a matter of fact we find there always exists an inalienable connexion between these two aspects in every progressive society of the world. But for an ever-growing literacy among the masses ensured by a free spread of elementary education, there would be no intelligent substratum whereon the specialisation process of University education could tower forth prominently in its full effulgence. But for the high ideals evolved in University life, there would be no light which could illuminate the otherwise dark regions of pure literacy as such. The refining touch of education is perceptibly felt, only where mass activity gets idealised in the simultaneous process of the concretisation of the ideals of University life. Education in its extensivity supplies the material to be moulded into the forms of usefulness and adaptability, which it develops in its other aspect of intensity.

The question of education in its extensivity sufficiently engaged the attention of the late Hon'ble Mr. G. K. Gokhale during the latter decade of his life, though the Government of India could not

view his measure for free compulsory elementary education eye to eye with him. One would wish that, prior to introducing the measure in the Imperial Legislative Council, the movement had been sufficiently popularised among our masses, for whose benefit it was intended. Unless by our own endeavours we establish a fairly good number of elementary schools throughout the country, I am afraid there is no chance of the present movement for Free Compulsory Elementary Education to our masses ever being recognised as serious by the Government of India. Unless the Government are convinced that our masses really clamour for education as a result of our indigenous enterprise in that direction, there is little chance of the proposed measure ever becoming an established law of this country.

As regards education in its intensity: For some time past a movement has been set on foot to start in India Universities on what we are accustomed to call 'National lines.' The movement has also taken two entirely distinct directions. On the one hand, we have a number of educational enthusiasts, who have actually established a few colleges here and there devoid of affiliation to State-established Universities, while on the other we have quite an equally large number of optimists, attempting to found colleges affiliated to the existing Universities, and even to establish Universities seeking State recognition.

As regards the former direction of the movement, I may at once say that, though I am one with the advocates thereof in their ideals, I do not agree with them in the methods employed for the realisation of those ideals. No doubt the conditions of affiliation to the existing State-established Universities of India, and of recognition by the Government of India of indigenous Universities newly to be established, are not quite conducive to

the development of our distinct national genius. It is also a fact which cannot be ignored, that the conditions above referred to are rather hard to be satisfied in view of the present economic condition of India. It is these two circumstances, rather chilling in their effect on educational enterprise in India, that have brought about a peculiar kind of despair in some of our well-intentioned educationists, and given rise to the direction of University movement we have just noticed. In attempting to found colleges devoid of University affiliation, and Universities devoid of State recognition, they are only evading but not solving the abovementioned difficulties. That is only cutting the gordian knot.

They are further, though with excellent intentions, creating difficulties of a different kind which are more insuperable than those they have evaded. Universities and Colleges, while preparing a few ideal citizens and true students of sciences, ought not to fight shy of the fact, that the majority of their alumni are not prompted by ideals so high, as to dispense with their necessity for State recognition and State-established University-affiliation respectively. What possible prospects, I ask, can the founders of these institutions hold out to such men, to whose concrete interests of an immediate nature, no merely academic ideals like learning for learning's sake, can make any effective appeal? Granting in a few cases the possibility of their appeal, they can do so not at the commencement of University career, but as a result of some years of active participation in any corporate University life. The fallacy of the method resorted to by way of solution, lies in the fact that these educationists presuppose in the youths entering their institutions, ideals which it is their business later on to infuse into them.

I can conceive of purely technological institutions dispensing with the need for State recognition, as young men trained in these institutions may, by themselves, have a market value of their own. I can also conceive of well-financed academic Universities training people purely in Arts courses dispensing with the need for State-grants. But no college or University which is purely secular and non-technological in its objects, can thrive except under the sheltering care of State-recognition.

Thus we see that the solution of the problem raised by the fact of uncongenial conditions of University affiliation and State-recognition in India at the present day, as proposed by the educationists whose standpoint we have just examined, involves the creation of graver problems far more difficult to solve. The problem can be solved without creating more difficult problems, only by bringing about in India an organised public opinion in regard to educational matters, an opinion which should be strong enough to shape the educational policy of the Government of India, on which the educational interests of our country largely depend. The Government are amenable to well-informed opinions based on study and experience, with which, however, they cannot credit such of our educationists as are not full time workers in the field of Indian education. Hence it is that our educationists, who have devoted themselves to the teaching profession or work of research, should constitute themselves into an organised body to safeguard the best interests of education in India.

The attempts of our optimistic brethren have, of late, taken a little more tangible form in the three highly elaborate schemes for three Universities in India, one for the Hindus, one for the Muhammadans, and one for Mysore. It would have reflected greater credit to the "universalising" aspect of the Universities newly to be established, if the organisers of the first two schemes had chosen to call those two Universities, in the one case, the Benares University, and in the other, the Aligarh University. Names may not appear to be of much significance in public life. But we cannot ignore the fact, that names are as much the creators of new ideas, and sometimes of new invidious distinctions, as they are the forms in which old ideas are clothed. Further if names really matter little, it is difficult to understand why insistence is laid on the terms 'Hindu' and 'Muhammadan,' when a possible future perversion as a result thereof is clearly pointed out.

The scheme for the Mysore University has recently been published. One cannot but remark, that the published scheme falls far short of the original hopes raised in us as to the place of vernaculars in the instruction to be imparted in the new University. In many other respects, how-

ever, the scheme is all that can be desired. It is now too soon to discuss the difficulties that may crop up in the actual working of the scheme.

The scheme for the Muhammadan University is still in an embryonic condition, and it remains to see whether it will be able to see the light of day in good time, or shall have to fall through for want of proper sustenance from the womb of Governmental protection in which alone it can grow. We understand that, as a result of a division of opinion among its organisers as to the desirability or otherwise of establishing a University under the conditions of State-recognition accepted by the Hindu University Committee, the scheme had, for a time, to be practically dropped.

Even as regards the Hindu University which has recently passed from the region of a mere scheme into the realm of fact, the attitude of the Government of India is not quite clear. The right of electing its own Chancellor, which the Government seem to have after all granted to the University, amounts to a practical withholding of the right, in view of the fact that it is only the Visitor, the Lieut.-Governor of the Province, that should exercise ordinary powers like those now exercised by the Chancellors of the existing Universities of India, and the Governor-General of India that should exercise extraordinary powers in cases of emergency. This is a question not of finance but of education, and it is extremely regrettable that the Government should still hesitate to leave the matter at least of our education, entirely in our own hands. As muscles develop by movement, and knowledge grows by knowing, so do powers of discretion grow only by frequent opportunities afforded for their free exercise, and no State is entitled to the satisfaction of ruling over an enlightened and discretionary public, so long as it fears a possible abuse, even by its foremost citizens, of the powers of discretion which responsible positions would involve. Let us, however, hope that better light would soon dawn upon men in power, which would dispel the illusion of over anxiety, which at present seems to be spread around them in regard to their attitude towards Indian education. But let us not in the meantime forget the duties on our side. The onus lies upon us still to convince them of our capacity for a well-organised, sustained, and relevant effort

with a thorough grasp of the nature of the environment, wherein to work out certain common definite ideals. We have also yet to convince them perhaps of our capacity to exercise high powers of discretion to the best advantage of our fellowmen in this country, consistently with the integrity of the State to which we have the honour to belong, and this, not unduly influenced by the million and odd petty prejudices of caste, sub caste and non-caste, etc., that have been for some centuries dividing India against herself. We have to convince them that these are only distinctions in certain non-essentials of Indian life, but that a unity pervades the essential aspects thereof as in the matter of our education. I am afraid we have yet to convince them of our seriousness of purpose and whole hearted devotion to duty.

Now the Britisher is too practical to believe in the possibility of seriousness with a plurality of purposes. And so long as the staff of our educational institutions leave the question of our education to be solved by non-educationists, who, having seriously taken to other professions, can only resort to educational topics as a mere pastime, so long shall the purely Indian standpoint remain a negligible factor of his serious consideration. Where he sees a frittering away of energy, he casts off his serious mood, and enjoys the humour of it.

I believe that the next immediate move in the process of the realisation of our common ideals, must be taken by our eminent educationists. Most of the purely Indian University men as such share the bad results of an absolute system of University education, the like of which seems to obtain in no other progressive country of the world. Very few of them can show an unyielding strength of nerve in physical endurance, a healthy habit of mind in the reception of knowledge, and a noble spirit of enquiry in the interpretation of experience and even these few show such qualities not because of their University education, but in spite of it.

The primary object of a progressive system of University education, is the preparation of efficient citizens. A University man should not merely be versed in the science of citizenship, but be trained in the art thereof. In other words it will not do if he merely learns up by rote, in the order of their importance, the various constituent elements of

ideal citizenship, but he must be able to live the citizen in his every-day life as a direct result of his University career. The instruction imparted to him, and the life of which he partakes in his University career, should all be in conformity with the requirements of efficient citizenship. There should be no blind sticking on to traditional methods of instruction, to time-honored modes of life, nor should there be an abrupt going in for the new just for the fun of it. A tenacious adhesion to what is merely traditional, may ensure better averages, while a restless rush for something or other that is new, may facilitate the production of an occasional higher type. But an undue predominance of the former tendency necessarily hampers the growth of genius, while that of the latter weakens its own substratum. I leave it to my readers to judge for themselves which of these two tendencies predominates in the Indian Universities. I do not know how far the criterion is at all applicable to institutions, in which there is not yet much scope for a consistent pursuit of any fixed policy of education.

Wherein then does citizenship lie? The term citizen is usually defined by reference to State. From this point of view State is the presupposition of citizenship. This point of view is certainly valid, but within certain well-defined limits. The point of view in its absoluteness is the burden of Hegel's whole Philosophy of State—Individual should be completely subordinated to the State—And it is the undue emphasis laid on this standpoint by Hegel and his successors in Germany, that is said to be largely responsible for the present cataclysm, the great conflagration, now on full swing in Europe, and threatening the peace even of the far East. The other point of view is as valid, though again within certain limits. The citizen is as much the presupposition of the State, as the State is of the citizen. This latter point of view is perhaps of particular value to us in India at the present stage of her evolution, a stage in which, I am afraid, there has been too much of counting on what the State has to do for us, and too little of our convincing the State, by any tangible proofs, of our capacity for organised and sustained endeavours directed to the attainment of definite ends. But the limits of the standpoint must be carefully recognised, and

implicit obedience rendered thereto. Universities should prepare citizens not merely of this State or that State in particular, but also of State in general, citizens who should be able, whenever necessary, to transcend the merely racial standards of action, and make their own, the cause of every weak and oppressed section of humanity, whatever the nationality, creed, or sex of the latter. In other words Universities should be *universalising* in their effect. They should primarily aim on the refinement of their alumni of certain essential springs of human action, so that the latter may be fitted for the duties of citizenship in its generic and more liberal sense. This they must do not apart from, but under the patronage, guidance, and even occasional control of the particular State to which they belong. Well, then, from this more comprehensive point of view citizenship essentially consists in amenability to the new combined with a certain aggressiveness towards its reception. These are not two contradictory notions as they may appear to be, but two different aspects of a single unitary process of mental growth. The former element secures the wider interests of humanity, while the latter preserves in tact the distinct individuality of each organised unit thereof. But each by itself, to the exclusion of the other, would lead to certain perversions described elsewhere in this pamphlet. It is in the harmonising of these two apparently recalcitrant elements of the spiritual part of man, that true citizenship consists, and it must be an avowed object of every progressive University to secure the required harmonisation, and thus bring about a real spiritual awakening in its alumni. That alone is the true religious side of University education, which is productive of any useful results.

The citizens prepared in a University must be strong in body, resourceful in mind, and noble in spirit. It is on the harmonious development of these three essential aspects of human nature, that a University must aim, and not on the one-sided development of any one of them to the deterioration of the rest. It ought not to be the case, that a University man is weak in body, or mean in spirit, however capacious he be in mind. The so-called development of mind in such a case would only be a morbid outgrowth that gradually eats into his very nature, so that when he grows to adult age he would

not be equal to the arduous task of citizenship, to which the vital interests of humanity in general, and of his country in particular, are soon to call him.

It may not be out of place here to apply this criterion to the results of the system of University education obtaining in India for over half a century. Let us first consider the results on the intellectual side. In the last session of the All-India Science Congress held at Lucknow, Prof. Ray of the Calcutta Presidency College clearly pointed out, that the contribution made to science by modern India, as compared either with her ancient contributions, or with those recently made by the western countries, is almost nil. But he found solace in the idea that more has been done by our younger scientists, than can be expected in the present deplorable absence of Research Institutes of Science in India. While admitting the absolute necessity of such institutes in various branches of knowledge for our scientific progress, I am not sanguine enough to expect from them much work of an original nature, so long as the present system of education with its heavy curricula of studies, with the initial waste of brain power and time which the circumstance of a foreign language as the medium of instruction necessarily involves, and with its examination ordeals hampering at every stage the growth of our genius, remains unaltered.

The object of all education is to arouse in the learner a clear insight into his own aptitudes, and facilitate specialisation in that direction under certain disciplinary conditions, so that he may become an asset to some particular branch of knowledge, or some particular profession, or other. On the contrary it has been the practice of the Indian Universities to inject into the minds of our young men something or other from without, and then apply all sorts of external tests to satisfy themselves, as to how far the stuff has been retained by them in memory in all its details, and in the order of injection. Their brains are filled with a conglomerate mass of a number of irrelevant details, ever running riot, not being linked by anything like singleness of purpose. Unable to call these riotous elements to order, they find themselves more at the command of their knowledge, than have their knowledge at their

disposal for any original manipulation thereof. The result is that, in most cases, our University men are so many reference books, so many walking lexicons, and that in the direct proportion in which they memorised isolated details of mere reference, in that very proportion they would have lost their capacity for intellectual origination. This essential characteristic of true human intelligence, the result of the accumulated experiences of long generations of our ancestors, becomes atrophied by the unnatural exercise of mere retentive power, that more characterises the animal than the human type. Their self-initiating faculty for thought and action, thus rusting away under environments too artificial for self-accommodation, makes them utterly incapable of discharging their duties either as contributors to any branch of knowledge, or as efficient citizens of State.

This intellectual impotence often leads to an early nervous breakdown in our University men. The fact of premature deaths more among our educated than among our uneducated classes, has been sometimes explained away by reference to early marriages. While not denying the evil consequences of early marriages in general, and of forced pre-puberty marriages in particular in certain communities of India, I may be permitted to ask whether early marriages are productive of the same evil of premature death among the uneducated classes of India, in whom the custom is more prevalent than among the educated classes, some of whom may be deterred from early marriages at least by the bait, however sordid, of a possibly higher Varasulkam or Kanyasulkam as the case may be, proportioned to their educational qualifications. I am afraid there has all along been a confusion between a non-essential concomitant, in whose favor there is absolutely nothing to say, and the true cause in the explanation of this phenomenon. I trace it largely to the repressing nature of the rigid examination ordeals of the Indian Universities, the examinees therein being subjected to the soulless task of memorising the minutest details, their natural inclinations apart. In this connection I am tempted to instance the Madras University with its authoritative examinations at the hands of examiners, whose genius shows itself more in their microscopic originalities displayed in questions

set at its examinations, than in any substantial contributions made to any branch of knowledge. Our Universities instead of encouraging a thorough study of a few significant facts, and a clear grasp of a few fundamental principles underlying a diversity of fact, are unduly *particularising* in the curricula of studies which they prescribe. In short our Universities are not *universalising* in their effect. This effect of Universities ought to show itself also in the spirit of tolerance which they should engender in their alumni, so that the latter may be able to stand above certain petty distinctions of caste, creed or faith. A reference to this was already made when discussing the desirability or otherwise of the terms 'Hindu' and 'Muhammadan,' as applied to the Universities sought to be established in Benares and Aligarh respectively.

Now so long as we prepare in our Universities young men in most cases emaciated in body, and enslaved in intellect, and so long as more than 90 per cent. of our fellow countrymen continue in their present condition of illiteracy, so long shall the question of a regenerate India have to be brushed aside as a matter of an ever-receding future. For, what architect is there, of whatever ability or skill, that can raise a standing edifice with such bad material, on such flimsy foundations—with the material that our Universities supply, strained in the process of preparation to physical exhaustion and mental passivity, and on the foundations of the present overwhelming illiteracy and superstition of our masses and our women? The scientist arouses no thinking response, and therefore ceases himself to think at all. The artist invokes no feeling response, and therefore ceases himself to feel at all. For, what else is possible both for the scientist and the artist, than in the one case to cease to think, and in the other to cease to feel, when, in the minds of an appreciating public, the sense of thought, and the sense of feeling are being atrophied and reduced to nothingness?

Such a state of things must inevitably result in perversions of all kinds in every department of life. Versatility, an important requirement of specialisation when confined to certain limits, degenerates into a superficial dabbling in everything without a clear grasp of anything in particular, while its correlate, specialisation, deteriorates into the most

provoking contempt for other branches of knowledge. Aggressiveness towards the new, a virtue of a high order essential both for individual and national preservation when understood correctly and practised in right spirit, takes the morbid form of an unconscious slipping into the mechanical routine around the moment perversion sets in, while amenability to the new, its inseparable correlate, a virtue again but within limits, becomes perverted into the most pernicious habit of an irresponsible self-modification beyond all possibility of self-identity. Intellect, instead of being used for the purpose of finding opportunities to render assistance where an uncultured man is not able to avail himself of the few opportunities at his disposal, will only serve as a means of justifying what, to plain common sense, would be the most selfish indifference to human suffering. These are a few of the possible unwholesome results of the present system of education in India, if system it can be called.

These types of perversion are traceable to two negative causes, besides the positive cause of a bad system of education. They are due firstly, to a sad want of a common platform, whereon the educationists of India could meet together from time to time for the co-ordination of their respective educational ideals, and secondly, to the absence of organised educational work in India for the purpose of enlightening both the State and the people, by means of certain responsible periodical publications and otherwise, in regard to the educational needs of India.

I leave it to the political and social workers in India, whether they can as at present, afford to fight shy of the sort of material, in which alone it is possible for them to realise their long cherished hopes as to India's future. Whatever their decision as to the necessity of their active co-operation in the work of the Indian educationists, let it always be borne in mind by the latter that they, more than the former, shall be held by posterity to account for the deplorable perversions they may inherit from us. Let the educationists of India not forget that 'the two highest functionaries of the State are the schoolmaster and the nurse.' The nurse, in India happens to be the mother, in most cases ignorant and superstitious, but in all cases innocent and homely

to the credit of the Indian ideal of womanhood. In view of her present illiteracy, her function for a long time to come becomes merged into that of the Indian schoolmaster, so that he has to discharge an additional duty, the duty of the Indian mother.

It is the educationist that moulds the character of a nation in the progressive countries of the world, and I fail to see why the Indian educationists also should not widen the scope of their united influence. It is often complained that they have to work under certain limitations. But this complaint is based on an evident tendency to shift the burden on to the shoulders of the State. If they have the nerve for it, these very limitations may be converted into so many useful correctives, and ultimately transcended. Limitations either have a disciplinary value, or are hampering in their effect. In the former case they are useful as checks on undue action, while in the latter their very existence ought to provoke action all the more intense, though more discreet and more relevant. In any case they must be obeyed in the spirit in which the scientist obeys the laws of nature. For, the nature of a limitation in all its details can be fully grasped only by an implicit obedience thereto, and without a clear grasp of its nature, it is impossible to transcend the limitation. Once the limitation is transcended, it will cease to be the obstacle that it was originally fancied to be, and become converted into a contributory factor of progress. Difficulties in practical work are mostly gaps in the thought of the worker, and to transcend difficulties is only to fill up such gaps. Once these detached phases of thought are linked into perfect harmony, they will be found to be of immense value to him at the initial stages of actual work. They serve as so many definite items into which his whole programme should divide itself. Any such limitations therefore need not be construed as deterrents of organised educational work in India.

Having discussed the question of education in its extensivity and intensity with special reference to Indian conditions, I proceed to give a brief account of the sort of All-India Educational Organisation that I contemplate.

I feel that, while those who specialise in any particular branch of knowledge should have an organisation of their own confined solely to the workers in that particular department somewhat

on the lines of the All-India Science Congress, all educationists, in whatever branch of knowledge they may specialise, should constitute themselves into a public body to safeguard the best interests of education in India. The organisation should, in its very composition, justify its formation. It should be confined solely to the full-time workers in the fields of education and research, since educational amateurism is as much a danger as many other evils in India. Of course any body, whatever his profession, may help the organisation financially. But such of those who have seriously entered other professions, as are willing to have an effective hand in shaping the work of the organisation, may do so more honourably on invitation from its Standing Committee, which should consist only of full-time educationists of a recognised standing in Indian education.

The organisation should be a fitting response to the calls of present-day India in regard to Indian education. Hence the need of a slight variation in the spirit of its work from that of its sister conferences, established under conditions somewhat different from those now obtaining in India. At its very inception, the new spirit should be embodied in its aims, and the scope of its work.

The organisation may be called 'Indian Educational Congress.' Its objects mean its function, and they can gain definiteness only as it grows itself. But as function, however, inchoate, is always a necessary presupposition of an organ, so also the objects of the contemplated Congress may, as I conceive them in their initial indefiniteness, be somewhat like the following:—

(1) To widen the scope of the united influence of the Indian educationists, so that they may be useful functionaries of Indian polity, moulding the character, life, and habits of the Indian nation;

(2) To make a comparative study of the progressive educational institutions of the world with a view to assimilate the best in them into those of India after such modifications thereof as Indian conditions may necessitate.

(3) To organise in India a healthy public opinion which should count as a factor of important consideration;

(a) in the shaping of the educational policy of the Government of India,

(b) in the actual working of the educational institutions of India.

(4) To bring about such conditions of service in the educational institutions of India, as would ensure the recruitment of the staff thereof from among the first rate men of India,

(a). To get minimised as far as practicable, and consistently with their internal discipline, certain invidious distinctions of an official hierarchy in the educational institutions of India,

(b) To secure the dignity of the teaching profession from being compromised for purposes inconsistent with the best interests of education in India;

(5) To agitate for the multiplication in India of Technological and Research Institutes in various arts and branches of knowledge wherein full-time workers may, under the support of those institutes, be enabled freely to pursue their studies;

(6) To give a healthy turn to the work of the Indian Universities, so that they may gradually cease to be the merely examining bodies that they now are, and may become living centres of true culture, healthy discipline, and noble ideals.

(a) To popularise among the masses of India the movement for Free Compulsory Elementary Education, and thus convince the Government of India of the real need for an early legislation thereon.

(b) To agitate for the establishment in India of a number of free elementary schools both by the State and by indigenous enterprise, so that, by an ever-growing literacy among them, our masses may play a more intelligent part in the larger public life around.

The proposed organisation would also be the most competent body to work out a useful scheme for the improvement of the Indian Vernaculars, and for settling the question of a common language for India. All are agreed as to the necessity of gradually evolving a common language for India from out of the Indian Vernaculars. They are also agreed as to the necessity of imparting instruction in Indian schools by the media of the Indian Vernaculars at least during the early years of student-

ship. But the two real questions are, firstly which of the Indian Vernaculars is to be the common language of India, and secondly how to make the Indian Vernaculars the media of instruction in secondary schools or in colleges. Though we may, for the present, postpone the consideration of the first question, the second demands an immediate solution, so that thereby a greater economy of brain-power and time may be secured in the process of school and college instruction. The solution is not, however, so very easy as it may appear at first sight. It is true that no foreign language can be a natural medium of instruction during the early years of studentship, and that it will have, for some time at least, to be learnt as an end by itself apart from the purpose of the learner. But I am afraid that, in some Indian Vernaculars, the spoken forms are so far apart from what the Pandit class considers their corresponding correct written equivalents, that the advantage of mother-tongue as the most natural medium of instruction is very much at a discount, with the result that these languages, as much as any foreign language, have to be learnt as ends by themselves. Our Vernacular Pandits have in many cases forgotten, that language is after all only a means which facilitates the work of memory in the human mind, and makes possible mutual exchange of ideas in social intercourse. The reversed statement that thought is the slave of language, seems to me as true of some of the Indian Vernaculars, as of any foreign language in the case of the Indian students.

Most of the Indian Vernaculars as written have not been, for a long time, keeping pace with the progress of those same languages as spoken. So long as they are not reformed with a view to minimise the present unduly wide difference between their spoken and written forms, so long shall the plea of mother-tongue as a natural medium of instruction, continue inapplicable to those parts of India where those languages prevail. One becomes naturalised to a language by speaking in it, rather than either by reading, or writing works in that language. Spoken tongue is what we mean by living language. Language as spoken grows imperceptibly from generation to generation, the tendency of the growth being towards sound

simplification and the consequent economy of expression in language. And when this growth becomes perceptible in the ever-widening difference between the spoken and the written forms of a language, the spoken forms must, in some of their prominent varieties, provincial or otherwise, be subjected to the scientific processes of comparison, abstraction, and synthesis, and a relatively permanent norm of the subsequent written forms of that language derived therefrom. This is no doubt the work of a master mind well-versed in the traditions, and the genius of the language, which he proposes to reform. But we cannot afford to postpone the task, since our intelligence has been very much handicapped by our having to receive instruction in the Indian schools and colleges in English language with the necessary consequence of a good deal of initial waste of our brain power, and time. Hence it is that the proposed Educational Congress will have to give a definite shape to the modern vernacular movement in India.

The objects mentioned above are certainly not the objects of the proposed organisation, as the organisation has yet to come into existence only if the educationists of India see the need for it. I give them here as I conceive them only to satisfy a formal requirement. Therefore any possible disagreement with any or all of those objects, need not alienate the sympathies of those who see the necessity for organised educational work in India. The need has been for a long time pronounced to be urgent by many of our eminent educationists. I press the question now as the present moment seems to be particularly opportune, in view of the fact that we have now for the first time a very sympathetic Indian as the Member for Education in the Viceroy's Executive Council. I can conceive of few patriots of India like the Hon'ble Sir C. Sankara Nair, who can rightly claim to be the repositories of the sacred trust both of the people and the Government of India at once. The people of India recognised the patriot in him, when they elected him as the President of a former session of the Indian National Congress, at a time when no previous high official position of his could have prompted his election. The Government of India recognised the statesman in him, when it

raised him to the exalted and responsible position which he rightly holds at present. But the possibilities of his work for the educational advancement of our country, are largely dependant on the organised nature of our public opinion in regard to our educational questions. Further, though in theory it may not be so, in practice we find that, in the outer meetings of the Legislative Councils of India, Indian Members of Executive Councils generally represent the Government points of view, which are not always identical with those of the people. The Indian point of view, before it can prevail in the outer meetings of the Legislative Councils, must first prevail in the inner meetings of the concerned Executive Councils by means of the private persuasions, which the Indian Members can bring to bear on their Anglo-Indian colleagues. This is possible only if there is an organised and responsible public opinion to back them up in their private persuasions. Hence the opportune nature of the present moment for the organisation of an Indian Educational Congress.

Our Muhammadan brethren need not misunderstand us, as we have not misunderstood their having formed a separate All-India Muslim League. Our educationists must take active part in the sessions of the All-India Muhammadan Educational Conference, as our Muslim brethren must honour the future sessions of the proposed Congress by their presence, and help its work by their active co-operation. In his Presidential address read at the last session of the Muhammadan Educational Conference held in Poona, Justice Abdur Rahim pressed on the attention of the Government of India, the educational needs not only of the Muhammadan community in particular, but also of all the communities of India as one united body. That is a practical step in the solution of the Hindu-Muslim question in India, if the question has not already been shelved into the regions of the past.

It was objected by an Indian educationist, to whom I had written about the central idea for which I am pleading in this pamphlet, that organisations should not be multiplied. But the objection is inapplicable to the proposed Congress, as, apart from the Muhammadan Educational Conference, we have not yet got another All-India Educational

Organisation. The meaning of the objection seems to be that the Provincial Organisations, if any, should be first strengthened. The answer is that just for the strengthening of each Provincial Organisation, a common platform must be created in India, whereon the educationists of all provinces may meet together from time to time, and receive inspiration therefrom. The proposed Congress would be an abstract force which, by frequently bringing the weaker and the stronger provinces together, would rouse the latter to a right sense of emulation, and enable our educationists to widen the present limited scope of their united influence, so that they may gradually become potent factors in the national advancement of our country. Further, with the strong, organised, and self-assertive public opinion of all the educationists of the country to back it up, the proposed Congress would be better able to exert a chastening influence on the members of the existing Universities of India, thus limiting the rather wide scope now afforded for a free play of some of their intolerable vagaries. Undue officialism with its consequent mechanical results, is the one bane of our educational institutions, and it must be an avowed object of the proposed Congress to bring about a gradual replacement of this officialism by a kind of intellectual republic therein, thus affording facilities for the recruitment of their staff from among our first-rate men. In short the proposed organisation would, by encouraging merit without jealousy, and exposing follies without fear or favour, enable both the State and the public to distinguish between the counterfeit and the genuine lines of educational reform in India. This cannot be done by a few isolated Provincial Organisations as such, inasmuch as the educational progress even of the concerned Provinces is dependant more on the educational policy of the Government of India, than on that of the corresponding Provincial Governments. For the enlightenment therefore of the Government of India as to our educational needs, an All-India Educational Organisation, over and above an organisation for each province, would be an absolute necessity. The proposed Congress would also be the only method of infusing spirit into some of the Provincial organisations, which at present are, more or less, defunct bodies, as it would place before them all a common ideal, towards whose

attainment by the whole of India, each has to contribute without any diminution in the intensity of its own Provincial work.

It was objected by a leader of public opinion in South India, that our educationists in most cases were too poor to afford the expense of long travels, so that it would be extremely difficult to bring about in the near future a truly representative session of the proposed Congress at any single centre of education in India. The objection is certainly valid, but valid in favour of the need for the proposed organisation, which should, zealously safeguard the best interests of the teaching profession in India, so that the Indian schoolmaster may be a real force in the life of his country. A generality of poor schoolmasters living on bare sustenance allowance, except in certain rare cases extremely limited in number, is a demoralising influence in the education of any country. In most cases of sacrifice in the educational institutions of India, efficiency is becoming a matter of secondary consideration, yielding place to certain narrow fads of the most fanatic type. The happy combination of competency and sacrifice in the same individual, or of efficiency and liberality of outlook on life in the same institution, is a rare phenomenon on which it would be a blunder very much to count in the educational progress of any country.

It is often complained that our first-rate men are flocking to other professions, congested as they already are. They are charged with selfishness for not entering the teaching profession with its petty emoluments and uncongenial conditions of service. True it is that many of our first-rate men, who would have been so many ornaments to the teaching profession, are so many failures in other professions. No doubt it is the prospect of a vague more, that takes them away from the teaching profession, which at present is only offering them a tangible little. But then, I ask, is this all selfishness? If selfishness it should be, it is the selfishness not of our first-rate men, but of the managing bodies of our educational institutions with their incompetent interference in season and out of season with the work of those institutions. Very few of our educational institutions of indigenous enterprise, have college or school councils with membership thereof confined to the

members of their staff, and even in the few cases in which such councils are allowed to be formed, the opinions of the councils can hardly prevail as against those of the managing bodies. No first-rate man can be expected to serve under such conditions. Is it selfish of him, if owing to the two persistent elements of *insecurity of service* and *incompetent interference* in our educational institutions, he abandons the teaching profession with all the academic charms thereof? Is it selfish of him to refuse to serve in any educational institution on bare sustenance allowance under conditions which at every stage threaten his freedom of thought and action, when there are more lucrative offers in other professions quite within his easy reach? It is on the other hand immoral to surrender justly earned rights of legitimate remuneration, *unless in that case better facilities are afforded for a freer discharge of duty, and a wider scope of influence.*

Altruism does not consist in self-immolation, but in sacrifice of the baser for the better preservation of the noble part of man, and a poor schoolmaster allowing his nobler substance to deteriorate in the process of self-sacrifice is an object of our sympathy rather than of our admiration. The Indian schoolmaster's lot is more or less one of self-effacement, a kind of complete self-subordination to the will of a few non-educationist members of managing bodies. This may be the case even in other professions. But such a state of things would be very dispiriting in learned professions like that of teaching, confined in secondary schools and colleges to University men, who must have graduated in B.A. and M.A. respectively. Hence it is that the best of them enter other professions, in which they can be sure at least of higher emoluments, though not of higher culture. And the second-rate instruction in most of our colleges by mediocre Professors, who have been somehow able to accommodate themselves to the conditions described above, is productive of no useful results. The oft-complained selfishness of our first-rate men is beside the point, as it is only an incident in the process. The source of the whole mischief must be looked for in the very conditions of service in our educational institutions.

It must therefore be one of the primary objects of the proposed Congress to solve the problem of

the poverty of the Indian schoolmaster, and agitate for the gradual elimination from our educational institutions of the two depressing elements of insecurity of service and incompetent interference with their work. It must also vindicate the right of every affiliated college in India to have a council of its own confined to its staff with powers to recruit or remove any member thereof without interference from its managing body, which may, however, reserve to itself the financial control of the institution, where its members happen to be the principal donors thereof. This must be made an important condition of University affiliation, both in regard to colleges newly seeking affiliation, and colleges already affiliated. Such a condition would ensure better security of service, and greater freedom of work in our educational institutions, with the necessary result that the number of make-shift teachers would be very much minimised. This seems to me also the only method of attracting our first-rate men to the teaching profession. The question of emoluments would weigh far less with them, but for the accompanying circumstance of uncongenial conditions of service, though, by itself, the former circumstance is a sufficiently strong deterrent. The poverty of the Indian schoolmaster is therefore only a problem to be solved by the proposed Educational Congress, and not the least an objection to its formation.

The proposed Congress may hold its annual sessions at the place where the Indian National Congress meets. It should have a responsible official organ of its own, at least a quarterly conducted on lines laid down by its standing committee, and under the management of a competent editorial staff of the Indian educationists. The editorial staff should be so constituted as to secure thereon an equal representation of the educational interests of all the Provinces of India. It is not within the scope of this pamphlet to mention the various topics which shall have to be discussed in the columns of the proposed organ.

Each Provincial Organisation should own a monthly Magazine devoted largely to the discussion of the educational questions concerning that particular province, but on the general lines of policy pursued by the All-India Organ. It should

meet twice a year, and at each meeting review its work during the preceding half year, and define the work to be done during the succeeding half year. It should also engage the services of full-time salaried workers, varying in number with the area of each province, and the number of educational institutions therein. These workers should be enthusiastic educationists, at least graduates in B. A., who should specialise in the science of education by making a comparative study of the growth of the leading educational institutions and Universities of the world. That seems to me the only way of averting the evils of the present-day educational amateurism in India, and of convincing the Government of India of the responsible nature of public opinion in our country regarding our educational questions. Education is as much a distinct science requiring full-time specialisation as any other branch of knowledge, like physics or chemistry, and one, who specialises in any other science, need not necessarily be an educationist, nor one who resorts to educational topics as a mere pastime, however eminent he be in the particular department of life to which he has devoted himself. Unless in this respect we make definite endeavours, I am afraid there is little hope of our demands in regard to our education being seriously considered by the Government of India.

These full-time workers should particularly study the conditions of the Indian Universities, and educate public opinion as to what exactly are the hindrances that impede true progress in our Universities, what curative measures should be adopted to set right the defects thereof, what should be the ideals of a good system of University education, and how these ideals are to be realised in the young men entering our Universities. They should also educate the electorate of the Fellows of our Universities as to the principles which should determine their choice whenever any candidate stands for election, so that, in the event of his election, there may be a fairly good guarantee of his justifying the trust reposed in him by his constituency. They should from time to time call for non-official meetings of the Fellows of our Universities with a view to their mutual enlightenment and agreement as to certain general lines of University Reform to be pursued by common, so that no good proposal may

fall through in their official meetings for want of mutual understanding, and no obnoxious resolution, least subversive of educational progress, may find a place in the agenda lists of our Senate meetings.

* Each one of them should go about from institution to institution in the jurisdiction allotted to him, study the conditions of each institution and organise in each a council of its staff, which should meet once a week on a level of perfect equality, and discuss the educational needs of India freely and elaborately. Such councils of teachers working together for common ends in a spirit of goodly fellowship and healthy co-operation, would serve many useful purposes. Firstly, they would be the real units of the proposed Indian Educational Congress, and it is on the efficiency of their work and the internal fellowship and co-operation between the constituent members of each unit, that the vitality of the latter depends. Secondly, they would be, perhaps, the only means of safe-guarding the best interests of the teaching profession, and preserving its dignity from the many efficacious onslaughts to which it is at the present-day exposed. Thirdly, these councils would, perhaps, afford the best facilities for a careful study of the method of detecting the peculiar aptitudes of the students coming under the influence of their teachers. It is the lack of proper insight on the part of our schoolmasters into the real aptitudes of our school-going young men, that largely accounts for the failures in after-life of some of our over-scrupulous lawyers, our nervous doctors, our uncalculating merchants, and our imprudent statesmen. When any institution is not amenable to his gentle private persuasions, each provincial worker will enlighten the public of the place as to the condition of the institution exposing the fallacies of its work or administration without fear or favour. In extreme cases the Provincial Magazine, and the All-India Organ will be availed of for setting right the defects of wilful institutions.

The need of these paid workers will be still more evident from the present lack of full time men, for the large preliminary work that has to be done by way of collecting funds, etc., before establishing new educational institutions on new lines. We complain of want of accommodation in the existing colleges of our country for all the young men

desiring to receive collegiate education, and of the difficulty to establish new institutions under the present hard conditions of University affiliation. As to the conditions of University affiliation, and the necessity and method of reform in that direction, in view of our present economic condition, and the growing demand in India for higher education, I discussed briefly elsewhere in this pamphlet. But apart from this, the difficulty seems to me not so much one of money, for money has been found to be forthcoming in India for less pressing needs, as one of men, as workers, to go about and educate the public mind as to the necessity of establishing new educational institutions in India on national lines in ever increasing numbers. The method of remodelling the existing institutions, so as to nationalise them consistently with their recognition by the State and their University affiliation, and better the conditions of service therein, has proved useless in more than two cases in the Madras Province. The real point is that the philanthropic but non-educationist donors of our present indigenous institutions, are unwilling to surrender even a few of their rights of absolute control over the work of the staff therein. Their donations have been interpreted as being conditional on the effective hand given to them even in the internal management of those institutions. In fairness to them they may be given the financial control of the institutions. But equally fair is the demand by the members of their staff to be trusted with sole powers of discretion in the matter of their internal administration and of appointments therein. There has not been a sufficiently chastening influence brought to bear on the managing bodies of our existing private institutions, which can make them yield to the legitimate demand of the members of their staff for an effective council of their own. Added to this is the difficulty of want of accommodation in our existing institutions, which the managing bodies, unfairly enough, turn to account. The only solution of the problem is the establishment of new institutions on entirely new lines at the very inception, so that their growth in numbers and popularity may necessitate a thorough over-hauling of our existing institutions in the interests of their self-maintenance. This involves a good deal of knocking about by way of collecting

funds, etc., which needs full-time salaried educational workers in each province.

The paid workers have also to press on the attention of the public the necessity of multiplying girls' schools, and colleges for women, so that, by a gradual removal of their illiteracy, our young women of to-day may become responsible mothers of the future citizens of India. They should also organise free night schools wherein elementary instruction may be imparted to the working and the depressed classes by some of the local men by turns. The urgent need of a free spread of elementary education among our masses, must be brought home to the minds of our agricultural classes, so that, with an ever-growing literacy among them, they may be able to play an intelligent part in the larger public life around. The importance of technical instruction and the necessity of multiplying technological institutions for the industrial regeneration of India, should be particularly pressed on the attention of our capitalists and agriculturists, so that, if they should arise to a sense of the real cause of the present backward condition of the Indian industries, and thus convince the state of the serious and organised nature of our agitation in this respect, a distinct step may be said to be gained in the work of the Indian educationists. These paid-workers must also carefully study the question of the modern vernacular movement in India, and agitate for the improvement of our vernaculars, so that they may be fit media of instruction in secondary schools and colleges. No far-seeing statesman can advocate the adoption, much less the retention, of a foreign language as the medium of instruction in secondary schools or colleges, and it is but natural that the present Premier of the United Kingdom of Great Britain and Ireland, Mr. Asquith, in his reply to the latest speech of the Imperial Chancellor of Germany in the Reichstag, deeply resented the replacement of the Polish language by German in the schools of Poland. In his speech at the dinner at Lancaster House on the 10th of April, he strongly repudiated the German Chancellor's claim "that it is for Germany (of all powers) to insist when peace comes up 'giving the various races the chance of free evolution along the lines of their mother tongue, and of national individuality.'" He is reported to have said: "In these circumstances cynicism could

hardly more than in the Chancellor's claim...
ly this principle is to be applied—I
 suppose of the approved Prussian lines—both to
 Poland, and to Belgium..... The attempt to
 Germanise Prussian Poland has been for the last 20
 years at once the strenuous purpose and the casual
 failure of Prussian domestic policy.....
 'The use of the Polish language in schools, need
 I remind you, was restricted until it was only
 allowed for religious instruction, and finally even
 this concession was withdrawn, and the little Polish
 children had to learn to say their prayers in German.
 The wholesale strike of the children, the barbarous
 floggings that were inflicted on them, the arrests,
 and imprisonment of their mothers, form a black
 chapter even in the annals of Prussian culture.'
 Mr. Asquith then wonders what Flemish race them-
 selves think of the prospect which is so opened out
 to them of "a sound evolution based on their mother-
 tongue." If this significant speech of the most bril-
 liant statesman of Great Britain of to-day does not
 open the eyes both of the Indian educationists
 and of the Government of India, as to the waste of
 brain power and time involved in the process of
 school instruction in our country by the medium of
 English language, I wonder what else can. I discus-
 sed that point in greater detail in another connexion.
 I shall only add here that a strong substratum of
 public opinion must be organised on the question of
 our Vernaculars, so that, when next it finds its way
 into the sacred precincts of the Imperial Legis-
 lative Council, the question may receive a more
 sympathetic consideration than on the last occasion.
 All this, and much more, of a still higher educative
 value to our national advancement, whose limits
 are the limits only of their mental resourcefulness,
 has to be done by the full time salaried workers
 of each Provincial Educational Organisation.

Now, the practical question arises as to the method
 of organising the proposed Congress. There are
 only three alternative methods. Firstly, any strong
 Provincial Organisation may extend the present
 limited scope of its action and influence, so as
 to include in the programme of its work the solution
 of the wider educational questions affecting certain
 interests common to the whole of India. This it
 may do, forming from out of itself a subsidiary

committee for its own Provincial work, so that its
 distinct interests demanding its undivided attention
 may not suffer in the process of self extension. It
 will be at once seen that this method is out of
 question, inasmuch as we have not in India at present
 a Provincial Educational Organisation strong enough
 for such a task of self-transcendence. Further, other
 Provinces should not be deprived of an effective
 hand in the preliminary work of inaugurating the
 proposed Congress.

Secondly, any single educationist of All-India
 renown with a recognised standing in the field of
 Indian education may issue, on his own responsi-
 bility, a public manifesto embodying therein some
 provisional objects of the proposed Congress to
 the heads of the various schools and colleges in
 India. He may then convene at any convenient
 centre of Indian education a representative
 preliminary meeting of all our educationists,
 wherein the question of the proposed Congress
 may be fully discussed in all its bearings. This
 method certainly does not involve the second
 defect of the first alternative. It would be
 very good, if any eminent Indian educationist
 who commands the confidence both of the State
 and the Indian public alike, could be per-
 suaded to undertake this onerous task, to
 which the vital interests of his country's educa-
 tion call him. I tried this method in vain in two
 or three cases of Indian educationists, whom I
 had considered to possess to their credit a wide
 and varied experience of the educational institu-
 tions not only of India, but also of the western
 countries. Further, even if one could be per-
 suaded to take up the task, there is the practical
 difficulty of effecting at an early date a rep-
 resentative Preliminary Meeting, at any single
 place, of a fairly good number of educationists
 from the various Provinces of India, only for the
 purpose of discussing such vague topics as the
 need for the proposed Congress.

Thirdly, instead of any single educationist
 being burdened with the rather heavy responsibil-
 ity mentioned above, it will be a more feasible
 method if a Provisional Committee of a few lead-
 ing educationists of India consisting of one rep-
 resentative from each Province is at once formed,

and entrusted with the work of founding the pro-
 posed Indian Educational Congress. It should not
 be difficult to effect a meeting of these few edu-
 cationists, most of whom may probably be high-
 paid professors of first-grade colleges. It is by,
 and in the name of, this Committee, that all
 authorised correspondence relating to the scheme
 should be carried on, though this should not pre-
 clude a free discussion of the matter in the Daily
 Press of each Province by persons interested
 therein. The Committee should particularly ask
 the Secretaries of each Provincial Educational
 Organisation to convene an emergent meeting of
 its Standing Committee for electing therefrom
 two members, one of whom should be a purely
 Indian University man, and the other of wide
 experience of the educational institutions in the
 West. The selected members of each Province
 should then constitute themselves into the Stand-
 ing Committee of the Indian Educational Con-
 gress. With regard to representation on the Stand-
 ing Committee of the Provinces having no
 educational organisations, the discretion of the
 selected members from the other Provinces may
 be depended on. No doubt even the few existing
 Provincial organisations are practically defunct
 bodies, but they must be able to give us the germs
 of the contemplated Educational Congress. So soon
 as the Standing Committee comes into existence, the
 Provisional Committee now proposed to be formed,
 may formally declare itself dissolved. The Standing
 Committee should, in its preliminary meetings,
 draw up the constitution of the proposed Congress,
 define its aims and the scope of its work, and
 formulate its methods. It should then convene, in
 its representative capacity, a public meeting of all
 the educationists of India whatever their national-
 ity, at some important centre of Indian educa-
 tion, preferably in Benares where the work of the
 Hindu University is worth every educationist's
 direct observation. The Standing Committee
 should then submit to the educationists of India
 assembled in that first public meeting of the
 proposed Indian Educational Congress, the pro-
 ceedings of all their preliminary meetings for their
 final approval.

This method appears to be reasonable enough in

theory inasmuch as it secures the representation of
 all the Provinces of India, firstly, in the initial work
 of founding the Congress, secondly, in the interme-
 diate process of drawing its constitution and deter-
 mining the lines of its work, and thirdly, because it
 enables the present inchoate and independent idea
 of the Congress to find its final basis only in the
 existing Provincial educational organisations with-
 out necessitating any one of them to attempt at
 self-transcendence to the necessary deterioration, in
 intensity, of its own Provincial work. But in prac-
 tice the method will be found to involve difficulties
 of a different kind. Certain unforeseen situations
 of a complicated nature which compelled an unduly
 prolonged suspension of my work in connexion with
 this movement, had arisen in my experience as a
 result of some of my attempts during the past four
 or five months to form the proposed Provisional
 Committee. They need not be enumerated here as
 no definite purpose is served thereby. It is enough
 to point out for our present purpose, that they are not
 peculiar to the method we are just considering,
 but only the oblique influences of the exigencies of
 practical work, which should gradually vanish
 before earnestness of purpose and determined
 action. If the influences should be sufficiently
 active, they can even be converted into so many
 co-operating forces, owing to the effective nature of
 their appeal to the mental resourcefulness of the
 practical worker. The worst form of opposition to
 any healthy movement, is when the opposition
 takes the form of inaction, for, in this form it keeps
 the worker off his guard, so that, after a certain
 growth of the unseen hollow underneath, he finds
 to his surprise and disappointment the whole super-
 structure of his work suddenly collapsing into the
 great chasm below. Active opposition on the other
 hand, keeps the worker ever on the alert, and every
 bit of its mischief would only serve as a means of
 bringing into prominence some brilliant feature or
 other of the movement opposed. Let, therefore,
 no such chilling influences dishearten any possible
 sympathiser of the movement. He will do well to
 carefully understand all opposition, without worrying
 himself overmuch with tracing the opposition to its
 ultimate origins. Every educationist interested in
 the movement has enough work to do by way of
 strengthening the Provincial Organisations, so that,

when the proposed Provisional Committee writes to the Secretaries of each, there may be a ready and sympathetic response. If he is not already a member of any Provincial Organisation, he will at once join the organisation of the province to which he belongs, and infuse spirit into that body.

A good deal of work has to be done by way of popularising the idea of the proposed Congress. We have to convince our elder educationists of our willingness to avail ourselves of their mature experience and ripe wisdom. It is with their active co-operation, and under their wise guidance, that the more energetic of us should carry on active and continued propagandist work of an educative character in the Press and on the platform in connection with this movement.

For the last mentioned work I appeal to our younger educationists whose early life of studentship should still be fresh in their bitter memories, but to whose idealistic vision not yet dimmed by the complications of public life the future of India opens up its long vista of brilliant possibilities. I appeal to our elder educationists not to allow their insight into the present and the future to be dulled by their grateful memory of the achievements of their ancestors, but view with sympathy the legitimate aspirations of their younger brethren, and guide them aright whenever they run astray. It is often said that India once gave light and wisdom to the rest of humanity steeped in ignorance and superstition. I do not know the truth of this. I only know that at the

present day we are deemed unfit to educate ourselves on lines of our own, to impart to our children, by the media of our Vernaculars, a tithe of that light, a tithe of that wisdom that our ancestors are said to have given to a whole humanity.

Brother educationists of India, elder and younger alike! Remember that reality is neither the retrospected glory of the past as such, nor the merbly idealised possibility of the future, but the stern prosaic fact of the present, rooted in an ever-accumulating past, and piercing into a never-exhausting future. Arise therefore to a sense of the present. Awake from your stupefying languor on the one hand, and your dreamy speculations on the other, and take to work-a-day life with sincerity of heart and singleness of purpose. Justify your descentance from that brilliant ancestry of yours that once thrilled the whole world with its one pulse of spiritual message, only by leaving behind a grateful progeny of responsible citizens glorying themselves on your heroic fights, your noble triumphs and your still nobler failures. Take upon yourselves once more the roll of the teachers of humanity that your ancestors are said to have been to the ancient glory of your country. Remove its prevailing illiteracy, its intellectual starvation from India and replace it by knowledge, knowledge primarily of itself, its past achievements, its present struggles, its future possibilities, for "Knowledge is Power," and without power nothing can be done either by man below or by God above.

SOCIAL LEGISLATION UNDER HINDU GOVERNMENTS

BY

PROF. S. KRISHNASWAMI AIYANGAR, M.A.

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AN EARLY RUSSIAN TRAVELLER(1) IN THE DAKHAN.

THE appointment of a commercial deputation to Russia by the Madras Government naturally reminds the student of South Indian History of that early Russian traveller who visited the Dakhan and Golconda in the seventies of the 15th century with a view to establish, if possible, a similar commercial connection between the two countries, and who has left an interesting, though meagre, account of what he saw and what he thought noteworthy in the land of his visit. I mean, of course, that Athanasius, son of Nikita, who began his 'sinful wandering,' as he calls it, in 1468 and who stayed in the Bahmini kingdom till 1474. Nikitin was an uneducated man, and the account he has left is in consequence vague, incoherent, uncouth and devoid of that minuteness which

(1) The article is mainly based on *India in the 15th Century*, (Hakluyt Society Publication). The introduction contains a valuable bibliographical note and notice of the traveller's life. In the present article only such details are given as are likely to interest the Indian students of history.

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can alone induce interest in the reader; but to judge his work from the standpoint of pure literary and historic composition is a mistake. Apart from intrinsic merits, it possesses a high value as one of the oldest works of European travellers on India. Nor is it entirely without instruction. For though it is always likely to command more attention, on account of its antiquity and its originality, yet it is not without value as a description of the people of India, their customs and habits, their government and their material condition.

With the permission of the Grand-Duke Michael of Twer, a brother-in-law of Ivan III (1462-1605), Athanasius Nikitin left his native town on his enterprising journey in 1468. Descending the Volga, he visited Derband Baku 'where the fire burns unextinguished,' Bokhara, and other places in Persia, he reached the great port of Hormuz on the Indian Sea. After a stay of one month under the burning and scorching sun of that place, he shipped his horse in a tava (vessel) and sailed across in ten days to Muscat; 'thence in four days to Dagh, and farther to K...

(Gujerat) and Kambao (Cambay) where the indigo grows; and lastly to Chivil (Chaul). At Chaul he sojourned for a week, and then left for the interior. A journey of 18 days took him to Junir, the seat of a local chief named Asat Khan, a vassal of the Bahmini kingdom, who had been employed in incessant warfare, during the past twenty years, with the *Kofars*(1) and, as a rule, beat them. It was at Junir that Nikitin first became acquainted with real Indian life. He saw, during his two months' stay there, the rain and dirt of the Indian monsoons and the peaceful agricultural pursuits of the people who sowed wheat, peas and 'all sorts of vegetables.' He observed the wine being kept in large skins of Indian goat, the feeding of horses on grass and on *Jeichiris* boiled with sugar and oil. He saw that the Khan had for his attendants not Indians but foreigners from Khorasan, Chegotan, etc., and that he rode, even though he had horses and elephants, on men(2). He admired the town of Junir which, he asserts, God alone could have made and no human being. He further tells us that foreign travellers generally stopped at inns, the land-ladies of which furnished both food and bed.

From Junir, Nikitin proceeded to Bader, the capital of the Bahmini kingdom, at a distance of 40 *kors*, and here begins his description of the people. He does not very much dwell on the government of the country. He describes the Sultan(3) as a youngish man of twenty years, entirely under the control of his nobles, especially the Khorassaneans. One important fact

we understand from Nikitin's narrative is that the government was actually in the hands of a governing caste. He notes that, among the numerous foreigners who held the destinies of the Indian peoples in their hands, the Khorassanean had a special distinction and occupied a special prominence. Both as ruler and soldier he was pre-eminent in the Bahmini kingdom. Nikitin gives instances of some of the Khorassaneans whose opulence was reflected in the size of the armies they maintained. Malik Tuchar (i.e. Muhammad Gawan) had at his own expense a force of 200,000 men; another Malik Khan 100,000; a third (Kharat Khan) 20,000; and there were many Khans who were masters of 10,000. The Sultan's palace was a wonderful structure, every thing in it being carved or gilded, even the smallest stone being cut and ornamented with gold most wonderfully. The palace which included several courts of justice had seven gates. Each gate was guarded by 100 men and 100 Mahomedan scribes whose function was to register the names of persons going in and coming out. Foreigners, says Nikitin, were not even admitted into the town, which was guarded at night by 1000 *Kotwals*, mounted on horse in full armour and carrying each a light.

Nikitin is silent about the current politics of the Bahmini State. He simply mentions two campaigns in which the Bahmini arms were engaged, one under the command of Malik Tuchar against two Indian(4) towns whose ships pirated on the Indian seas, and the other led by Malik Khan Khoda(5) against Bichenegher

(Vijayanagar). He describes Vijayanagar as a wonderful place, 'to any purpose convenient; a place surrounded by three forts and intersected by a river, bordering on one side a dreadful jungle and on the other a dale. "On one side it is quite inaccessible; a road goes right through the town, and as the mountain rises high with a ravine below, the town is impregnable." Nikitin says that the Mahomedans took the place after a month's siege and with a loss of 5,000 men; and a terrible retribution was exacted in the form of the slaughter of 20,000 people and the imprisonment and sale, as slaves, of 20,000 others, the price per head of the old, the young and children being respectively 10, 5 and 2 *tankas*. The city however was abandoned as the treasury was empty.

Nikitin gives more information about the army than about any other institution in the country. The most significant fact he notes is the important part played by the elephants in it. Scythes and swords, two in number, were attached to the trunks of these huge beasts and iron weights were hanging from the trunk. Each of them carried a citadel fitted in steel armour and carrying either six or twelve soldiers armed with guns and long muskets. Each elephant was guided by a man in full armour, who sat behind the ears and had a large iron hook in order to guide it. The Sultan had personally in his charge as many as 300 of these beasts, while his brother had 100 of them. Next to the elephant corps should be mentioned the cavalry and the infantry. The Sultan's army consisted of 300,000 men, 100,000 horse and 200,000 foot besides the elephants and 100 other "savage beasts led in double chains." His brother had 100,000 horse and 100,000 foot. Nikitin further mentions that the Sultan was attended by 26 Viziers each of whom had under his command troops of 10,000 or 15,000 horse and 20,000 foot. Besides these, he says, there were four great Viziers, each having under his

control 40,000 mounted men and 100,000 foot. Each nobleman in the land signalled his greatness by the size of his retainer-troops, and the country, if we are to believe Nikitin, must have been groaning under a most oppressive military burden.(6)

Nikitin gives us a fairly clear idea of the showy magnificence which characterised the court life of those days. This magnificence we see particularly when the Sultan and his nobles went on a journey. The mode of travel was an index to the status of the traveller; the greater the splendour the greater the position. When the Sultan was on the move, on a hunting excursion, for example(7) (which he generally undertook in company with his mother and his lady every Tuesday and Thursday), a train of 10,000 men on horseback and 50,000 on foot, besides a gigantic array of 200 elephants, adorned with gilded armour, followed him. In front there marched a force of 100 horsemen, 100 dancers, 300 horses in golden clothing, 100 monkeys and 100 mistresses of foreign nationalities. On the occasion of the Bajram festival, the Sultan was attended by twenty high Viziers, 300 war elephants, 1,000 horses in gold trappings, 100 camels with torch-bearers, 300 trumpeters, 300 dancers and 300 "kdvre." The king himself rested on a golden saddle and wore a habit embroidered with sapphires and a pointed head-dress, on which shone a large diamond. Sometimes he wore a suit of gold armour inlaid with sapphires and swords mounted in gold! His carriage consisted of a golden bed with a silken canopy and a golden top, drawn by four horses in gilt harness. In front of it there ran a

(1) That is, the Hindus, probably of 'Songeer, Khaleh and Kokun' with whom Muhammad Gawan Malik-al-Tijar was engaged in fight in 1469, Nikitin is accurate enough when he says that Malik-al-Tijar was at the head of Junir troops. It was in the same year that Gawan captured Goa from Virupaksha Raya of Vijayanagar. See *Forgotten Empire*, pp. 99 & 103.

(2) The reference is evidently to palanquins. (3) Muhammad Shah who came to the throne on July 30, A. D. 1468 and ruled till 21st March, A. D. 1482.

(4) Goa was not improbably one of these. In 1472 the Bahmini troops were engaged, with success, against Belgaum also. See *Ferg. Emps.* based on *Ferishtah*, p. 100.

(5) The Hindu chronicles or inscriptions do not mention the capture of Vijayanagar at this time. Sewell believes that the traveller "may have confused the place with Rajahmundry or one of the eastern cities of Telingana," with which the Mahomedans were fighting at this time.

(6) Sewell points out that the total came to 500,000 foot, 190,000 horse and 575 elephants.

(7) The ladies accompanied their lord not only in hunting excursions, but in wars. The Sultan's brother, for instance, was followed in a campaign by his mother and sister and by 2,000 women on horseback or on "golden beds."

Musalman playing on the *temerits* and a mighty elephant, with a long chain, to clear the way of people and horses for the immense train to follow. Similarly the nobles were carried on 'silver beds,' preceded by 20 chargers caparisoned in gold and followed by 300 men on horseback, 500 on foot, ten horn-men, ten torch-bearers and ten musicians. One of the most opulent of these magnates was Malik Tuchar, whose household economy provided for the feeding of 500 people daily, whose stables contained 2,000 horses and 100 elephants, and whose residence was guarded at night by 100 men, 20 trumpeters, and 10 torch-men, while ten large drums, each attended by two men, were alternately struck throughout the watch.

The condition of the people was, if we are to rely on Nikitin, far from satisfactory. He notes indeed one sign of prosperity in the large number of towns which existed in the country. In the course of his journey from the coast to Beder he saw three or four towns each day. "So many *kors* so many towns," he says. Still, the people were not rich or prosperous on account of the glaring inequality of wealth. While the nobles were extremely rich and addicted to luxury, the country people were in a miserable condition. They went about, says Nikitin, naked; their heads uncovered, their chests bare. Their hair was tressed in one tail, and they had thick bellies! They moreover brought forth, we are told, children every year so that children were numerous in the land and wandered, in case they were below seven, without hiding their shame! All people, men and women, were black and stared at the strange Russian as he went along. Everybody had a garment round the loins, the king having one on his head besides, and the nobles on the shoulders. During winter all people put on a garment round the waist, shoulders and head; but princes and nobles also used trousers, a shirt and a long coat and, besides the garment on head and

shoulders, another as a belt round the waist. The servants of both the princes and nobles had a sword and shield, a scimitar and knife, bows and arrows. All were barefooted.

About their religion, Nikitin is comparatively well informed. He speaks disparagingly of the intolerance of the Mahomedans and favourably of Hindu friendship. He himself had practically to give up his religion and embrace Mahomedanism. Sometime after his landing in India the Khan of Junir, whom he visited in the course of his journey, deprived him of his horse and said that if he embraced the religion of the Prophet, he would give it back together with a sum of 1,000 gold pieces; if he refused, the same amount, besides the horse, would be forced from him. The astounded Russian was given a space of four days to consider. He was naturally in despair when a generous Mahomedan of Khorassan used his influence and saved him from the apostasy. In great earnestness Nikitin warns the future Russian traveller against travelling as a Christian amidst these "Musalman dogs." There are very strong evidences to believe that Nikitin had in the long run to give up his religion. The frequent denunciation of himself as a sinner, the grief he evinces whenever he speaks of his own practice of religion, the statement that he forgot even the festival days of the Greek Church, the observance of Mahomedan feasts, etc., all seem to show that he eventually became a Mahomedan, though he takes care to assure us that he evaded the formal renunciation of his religion. But when once he was free from danger and from Mahomedan soil, he sought once again, with great relief, the consolation of his ancestral creed.

About the Hindus, Nikitin is more generous. He says that he became friends with them in Beder and enjoyed their fullest kindness and confidence. When once they learnt that he was not a Musalman, they made no secret of their habits and customs, informed him freely of their

prayers and their material concerns, and even admitted him to their meal and to their society. Nikitin is, in consequence, able to enlighten us to some extent on their habits and customs. They believed (8), he says, in Adam and considered the *Budhs* to be Adam and his race! They had as many as 84 creeds. No man of one creed would eat, drink or enter into marriage with a person of another creed. Nikitin describes the idol-worship of the Hindus, particularly the worship in the temple of 'Pervottum' which he calls *Bodhkhana* and the Jerusalem of the Hindus. He refers to the sculptural representations of the scenes of 'Bodh's life' in the temple, to the custom of shaving the hair observed by men and women there, to the payment of tribute to the temple on each man and horse, and the assembling of 20 million, sometimes 100 million, pilgrims! The people prayed with the face towards the east in "the Russian way." They lifted both hands high and put them on the top of the head and then lay down with the face to the ground, stretching their body to its full length.

The ordinary food of the Hindus consisted of the Indian corn, carrots with oil and varieties of herbs. Some of them, says Nikitin, ate mutton, fowl, fish and eggs, but none ate beef. Banquets on pork, however, were abundant. They drank no wine. They ate twice a day (9) (except on Sundays and Mondays, when they ate once), but not at night. They used the right hand alone for the purpose, were ignorant of spoon, and were so scrupulous in regard to their fare that, while engaged in travel, they carried a stone pot

(8) Nikitin confounds creed with caste. His '*Budhs*' seems to be S'iva. The name Peruntum or Pervottum is generally given by western writers to Sri'saia in the Kurnool District. For a long and elaborate description of it see *Asiatic Researches*, 1798, V, 303; *Madras Journal*, XXIII, Pt. II, 182; Sewell's *Antiquities*, I, 90-91; and *Madr. Ep. Rep.* 1914-5.

(9) It is very curious that Nikitin complains of his expensive life in India when he spent one-sixth of an *anna* (1 farthing) on his daily food!

to cook their broth in. Nikitin notes the importance attached by the Hindu to privacy in this matter. The sight of a Mahomedan during meal was particularly avoided. The Hindus, moreover, sat down and ate. Before it they washed their hands and feet, rinsed their mouth, and thus attached great importance to cleanliness.

One curious custom noted by Nikitin is the confinement of a woman by her own husband and not by a midwife, a fact, however, which did not make the traveller see any sense of shame amidst the people. When two Hindus met they bowed to each other like the monks, touching the ground with the hands but said nothing! A newborn child was given its name, if a son, by the father and, if a daughter, by the mother. As regards funeral customs Nikitin notes the custom of burning the corpse and scattering the ashes in water.

Nikitin gives some valuable information about the ports and trade centres of the country. Cambay, a port 'of the whole Indian sea' was, he says, an important centre of manufacture of 'every sort of goods.' Nikitin mentions that it had a specially brisk trade in *taloch* (gown), damask, *khan* (satin from China), *tiots* (blankets), agate and blue stone colour. The next port, Dabul, which was a month's walk from Beder and Gulberga, was an international market where horses from Mysore, Arabia, Khorassan, Turkistan and Negostan were brought for bargain. Calicat shared with Cambay the honour of being an emporium 'for the whole Indian Sea'; but woe to the craft which came across it, for "whoever saw it will not go over it healthy!" Its productions included in the main pepper and ginger, cloves and cinnamon, spices and aromatic roots. Everything was cheap in that port, servants and maids being, to use the author's own language, 'very good.' The next port, Ceylon, famous for its hill-tomb of Adam, was well-known to merchants for its precious stones (antimony, agate and crystal) and its elephants

and ostriches, the former valued in proportion to size and the latter in proportion to weight. The next port, Shabat, says Nikitin, was a very large place on the Indian Sea, three months' journey from Beder by land and two months by sea. It paid a tribute of one *tanka* to each Khorassanee, big or small, and when he married, the sovereign of Shabat paid him 1000 tankas. At Shabat the country produced silk and sandal, beads and gems, sugar, elephants and 'everything that is cheap.' The seaport of Pegu which Nikitin next mentions was, principally inhabited by Indian dervishes and situated at a distance of four months' journey by sea from Beder and two months' journey from Ceylon. Two other ports, Machin and Cheen, were well-known for their porcelain and for their singularly depraved traffic in women who were allowed openly by their husbands to choose white men and even pay them for male children⁽¹⁰⁾ born to them. The merchandise conveyed by sea, says Nikitin, were free from duty, but they suffered a good deal from the greedy piracy of the 'Kofars' who were neither Christians nor Mahomedans but worshippers of stone idols. In Hormuz, however, the duties were high, 'one-tenth of everything.'

So far as inland trade is concerned, Nikitin tells us enough to show that it was chiefly carried on in special fairs and markets. In the city of Beder an extensive transaction was carried on in horses, goods, silks and black people, whom he condemns as thieves and cheats, as harlots or witches, ready to poison their masters. At a place⁽¹¹⁾ called Shahabuddin Peratyr Aliadinand

(10) That is, China. In case a male child of fair complexion was born, the man was paid 18 tankas, and in the case of a child of black complexion, he was not given any special payment but had enough of eating and drinking.

11. Ibn Bututa says that his object in visiting Bengal was to see a great saint of this name who lived in the mountains of Karūru adjoining Tibet and that the saint received the traveller with great attention and honoured him, on parting, by presenting him with his own fine garment of goat's hair. Major King thinks that Nikitin probably referred to the same saint.

which was at a distance of 20 *kors* from Beder, a fair was held once a year, which was attended by people from all parts of India. It lasted for ten days, and was so called because all purchase and sale was made in memory of a saint named Shahabuddin. An index to its prosperity can be seen in the fact that from Beder alone 20,000 horses came there for sale. Another important place in the internal trade of the land was Raichur of the diamond fame. In a hill in its neighbourhood diamond was worked and obtained, a *lokot* of it, if rough, being exchanged for 2,000 pounds weight of gold and, if refined, 10,000 pounds of the same metal. This diamond area, 30 *kors* in distance from Beder, belonged to Malik Khan, a vassal of the Sultan, and was inhabited not by the Jews, as it was usually supposed, but by a different people of Indian religion. The general conclusion of Nikitin as a result of his observation of Indian markets was that Russia did not need any Indian goods. These were suitable, in his opinion, to Mahomedan lands alone and no extensive trade between the two countries could be of advantage.

Communication between the different places in the Bahmini dominions was fairly easy, and Nikitin's progress gives us an idea of the travels of the age. He says that he visited Beder on the 3rd week of August. He stayed for 10 days and then left for Gulberga which was at a distance of nine *kors*. Nikitin observes that the distance from Hormuz to Golat was covered by a voyage of ten days; from Golat to Degh six days; from Degh to Muscat six days; from Muscat to Gujerat ten days; from Gujerat to Cambay four days, from Cambay to Chaul 12, from Chaul to Dabul six, from Dabul to Calicut 25, from Calicut to Ceylon 15, from Ceylon to Shaibat 30, from Shaibat to Pegu 20 and from Pegu to Chin and Macheen one month. The security of people was precarious and even Hindus had in consequence to be armed. Ser-

vants walked openly with sword and shield or bows and arrows.

We can gather from Nikitin's narrative some curious descriptions of Indian animals and beasts. He mentions a nocturnal bird which cried *gookook*, which foretold the death of a man by lighting upon his roof and which, when, any body attempted to kill it, emitted fire from its beak. Wild cats, says Nikitin, were plentiful in the land. They lived among hills and woods, roamed freely at night, caught wild fowls and attacked travellers. Monkeys were not only abundant but, says Nikitin, behaved like men⁽¹²⁾ and had a government of their own! They had a king (*kniaz*) who was attended by a host of armed followers. "When any of them is caught they complain to their *kniaz*, and an army is sent after the missing; and when they come to a town they pull down the houses and beat the people; and their armies, it is said, are many. They speak their own tongues and bring forth a great many children. And when a child is unlike its father or its mother it is thrown out on the high road. Thus they are often caught by the Hindoos who teach them every sort of handicraft, or sell them at night that they may not find their way home or teach them dancing." The high roads were dangerous to travellers on account of the attacks of these monkeys and wild cats. Snakes, fourteen feet long sometimes, crawled along the streets of Beder. Nikitin also mentions the musk deer. He was struck with the serviceableness of the bull and the cow. The bull, he says with profound wisdom, was the father and the cow the mother. The horns of the bulls were cased in brass, their feet were shod, and their neck was sometimes adorned with bells numbering 300. Their excrements were used as fuel, for 'the baking of bread and the boiling of food,' while their ashes were used for the fixing of the caste.

(12) That the monkey was considered a variety of the human species is clear also from the account of Ibn Batuta

marks on faces, foreheads and other parts of the body.

It was with immense relief that Nikitin entertained the idea of leaving India. Six years' stay had done enough to make him disgusted with it and early in 1474 he left Beder for Gulburga. Proceeding thence to Kooroola, a place inhabited by more than 300 dealers in diamonds, he spent a space of five months in anxious expectation of an opportunity for departure home. Calicut and a few other places were also visited by him, but it was at Dabul, the prosperous seaport where 'all nations living along the coast of India and Ethiopia' met, that he obtained the long-sought goal. Embarking on a *tana* bound for Hormuz—he paid two gold pieces as wayfare—he had the misfortune to be tossed over to Ethiopia, where he and his companions stayed for five days and where they had to purchase immunity from plunder by the distribution of bread and pepper among the natives. The voyage was soon resumed and after twelve days Nikitin reached Muscat and, in another nine days, the port of Hormuz. With the eagerness of a homesick man Nikitin pushed on his journey across Persia and Asia Minor till he reached, via Erzeroum, the seaport of Trebizond. Here, he embarked on board a ship for the Crimea and, though at first driven out of his way by a storm, had the eventual satisfaction of landing in his country by the 13th of November, 1474.

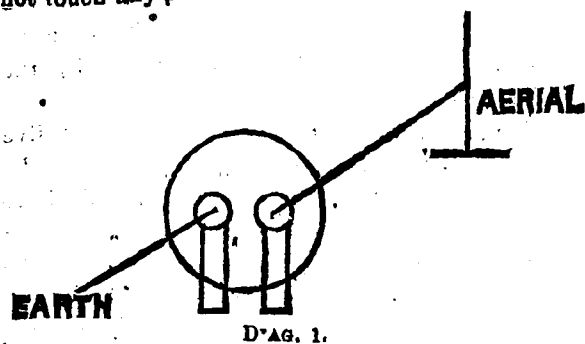
It is an irony of fate that Nikitin did not live to enjoy the life of his own country for which he had yearned so long and so ardently. We have reasons to believe that he died, probably of exhaustion, before reaching Smolensk; and the only relic of his extensive and enterprising journey was the manuscript account he left behind him. It was a fate which the first and earliest of the Russian travellers to India hardly deserved.

V. RANGACHARI.

SCHOOL WIRELESS SET.

IN these days when wireless telegraphy has become so prominent an agent both for saving as well as destroying human lives, there is a craving of the pupils of the higher classes and the general public to have an opportunity of witnessing an experiment on wireless telegraphy. Some foreign scientific instrument makers such as Griffin sell sets of wireless apparatus fit for demonstration. However, it is quite easy for a teacher to make use of the simple laboratory appliances and set up wireless telegraph on a moderate scale fit for class demonstrations and even for popular shows.

The arrangement of the transmitter or apparatus for the propagation of electric oscillations is easy enough. A Wimshurst machine has its knobs connected to the earth and an aerial. For making the earth connection it is enough if we suspend a copper wire from one of the poles so as to touch the flooring. As for the aerial, we can place a heavy stool on an ordinary table and over this we place a few sheets of glass and over the glass, a big metallic stand such as that of a Boyle's law apparatus. The metallic rod of the latter is put in electrical communication with the free pole of the Wimshurst machine by a copper wire, care being taken that the wire does not touch any portion of the wood.

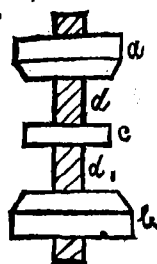


DIAG. 1.

If the distance between the knobs is adjusted such that sparking occurs freely and powerfully, whenever the machine is rotated electric oscillations will be propagated in various directions.

If the spark between the knobs is allowed to take place through a large insulated brass ball, the oscillations will be more powerful.

Receiver.—The vital part of the receiving apparatus is the detector. The easiest form of the detector procurable in a laboratory is a simple type of coherer which can be constructed as follows. A rectangular block of wood of thickness about 1 in. is selected and a binding screw (pattern No. 25, see Becker's Catalogue of Physical Apparatus) is procured.



DIAG. 2.

A hole is then bored on the wooden block, of depth about $\frac{1}{2}$ an in. and diameter exceeding that of a of the screw. The hole through the wood is completed by making another bore concentric with the first, but of diameter smaller than that of c and greater than that of d on which the thread has been cut.



DIAG. 3.

Upper part of the block of wood.

The nuts a and b are removed from the screw and the portion d is introduced from above the upper surface of the wood, so that c rests upon the bottom of the upper hole. The nut b is screwed on tightly from below, after introducing a piece of copper wire between the wood and the nut to make electrical connection with the screw. Thus the screw is attached rigidly to the block of wood.

A rectangular piece of metallic plate with three holes drilled along its length is then taken, the

hole C at the end being slightly greater in



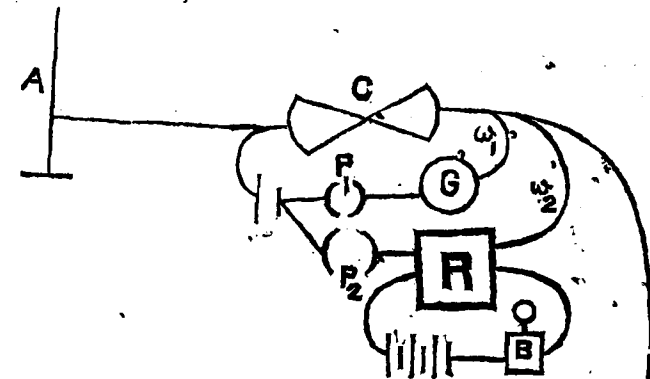
DIAG. 4.

diameter than d or d_1 , of the screw. The piece of metal is then placed on the upper side of the block of wood with the hole C symmetrically situated about the projecting thread d of the screw and must be kept rigidly in this position without being in metallic contact with the screw. This is done by drilling holes in the block of wood corresponding to B and A and screwing a brass screw and binding screw (of pattern 70) on to the wood.

A quantity of metallic filings, preferably of aluminium or nickel (as these are not easily oxidised by moist air), is then spread evenly over the portion of the metallic plate surrounding

the first binding screw and then the nut a is put on the binding screw. This arrangement constitutes a coherer with the broad polished upper surface towards the plate.

The following arrangements are then made in the receiver. An aerial A (see diagram 5) corresponding to that of the transmitter is made ready. The wire leading from the aerial is connected to the copper wire on the coherer C , as also to the wire leading from the positive pole of a Leclanche cell. The other terminal of the coherer is connected to a wire leading to the earth E , to a wire w_1 connected to the negative pole of the Leclanche cell, through the plug key P_1 and the tangent galvanometer G and also, to a wire w_2 , leading through the plug key P_2 to a P. O. Relay R and the negative pole of the Leclanche. The Relay is connected to a battery of three Leclanche cells through an electric bell B .



DIAG. 5.

After making the above arrangement, the coherer should be made sensitive. This is effected by inserting plug of key P_1 and removing the plug of key P_2 . The nut on the aluminium filings in the coherer C is screwed in slowly till the galvanometer shows a small deflection. The coherer is then tapped smartly by a watch-maker's hammer, when the resistance of the coherer increases and the tangent galvanometer shows practically no deflection. Plug P_1 is then removed and P_2 inserted. If sparks are produced between the poles of the

Wimshurst machine by rotating it, electric impulses will be propagated. They fall upon the aerial of the receiver and pass to the earth through the coherer. The coherer resistance is thereby suddenly decreased and an appreciable though still a weak current passes through the relay, which completes the circuit of the battery. The strong current thus produced rings the electric bell. Therefore whenever sparks are produced in the Wimshurst machine, the electric bell sounds. Plug P_2 is removed, when the bell ceases ringing and Plug P_1 is

inserted. A deflection in the tangent galvanometer G will be observed. A gentle tap on the coherer C by the hammer causes the deflection to disappear, as the resistance of the coherer is thereby increased. Plug P₁ is removed and P₂ is inserted as before. The instrument is now ready to receive further oscillations.

If a relay is not procurable, we can substitute for it an arrangement as follows:—A dip needle is constructed and near it a bobbin of wire (a two lb. reel of No. 20 cotton covered copper wire with a soft iron rod inserted through the hole) is placed. There will be a slight change in the deflection of the needle on account of the presence of the soft iron in the reel. The bobbin of wire is connected to plug P₂ and wire w₂. Thus whenever electric waves fall upon the coherer, a weak current passes through the reel of wire magnetising the soft iron to a small extent, sufficient however to deflect the dip needle appreciably. If the frame of the dip-needle is connected to one pole of a powerful battery, the other pole being connected through an electric bell to an insulated platinum wire kept below the dip needle, when the dip needle is deflected, it touches the platinum wire and completes the circuit of the powerful battery ringing the electric bell. Thus this arrangement may be substituted for the Post Office Standard Relay.

V. N. VISWANATHAN.

In the Press.

MILTON'S PARADISE LOST BOOK I

WITH NOTES AND INTRODUCTION

REVISED BY

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A PLEA FOR INDIAN HISTORY.

EVER since the days of the movement towards nationalities and nationalism, countries of the civilised West and East, have been attaching more and more importance to the study of their respective histories. A systematised study of the history of a country tending towards national consolidation, has been the care and aim of every modern Government. It is one of the factors contributing towards the growth of nationalities, that increasing importance should be attached to the study of a nation's history. The younger generations of men and women, who, in their turn—would become loyal citizens and law-abiding subjects, would indeed be fired with patriotic instincts, if they are systematically trained in the scientific study of the history of their motherland. In a word, the study of the history of a country is one of the surest ways of making a nation of its people.

During the course of 150 years and more of progressive British rule in India, we have been slowly but steadily overcoming the obstacles and difficulties that stood in the way of our progress, till at last we have now reached a period of transition—a period which marks the close of old-world ideas and conservative thoughts, and the beginning of a new era of a hopeful future. Events have so transpired that our leaders are at present talking sanguinely of the inevitable change in the status of our country ere long. Conditions have been changing everywhere, new visions have risen, new developments have been set on foot, and, on the whole, the prospect is not certainly dark. Our leaders have been working as Nation-builders, and if they are to be believed, the start has been given, and the country is slowly qualifying itself for the much-coveted goal.

In any scheme of nation-building and in any form of self-government, the necessity of inspiring the race with feelings of patriotism, and love for their motherland, is obvious, and such a feel-

ing is impossible unless they know the full history of their country's past. In other words, the study of the history of one's motherland, is important from every point of view. The history of one's birthland first, and then the history of other nations, if need be, for purposes of comparative study, should be the order of study.

It must be admitted that the place of Indian History in our educational curricula is rather unique, if not queer. In the Madras University, for reasons unknown, the position is certainly amusing. While Indian History has been given an important place in the higher grades of our educational system, for example, in the B.A. Pass and Honours courses, no trace of it is found in the Intermediate and it is relegated to the B. group in the School-Final system. If it is admitted that a knowledge of the country's past is a necessary factor in the evolution of the Indian Nation and if, therefore, it is recognised that the Indian students should be kept in constant touch with the history of their own country, in their School and College career, then, why not suitable facilities be provided for a proper study of Indian History in all the stages of the career of an Indian student? It would therefore appear reasonable that a more satisfactory and a more conspicuous place must be given, for the subject in the High School and with greater reason, the subject should be made to find a place in the Intermediate too.

But at the same time we are not oblivious of the fact that in certain quarters, objections are raised against the introduction of the subject in the O. group of the S. S. L. C system and in the Intermediate classes. No less is it true that numerous problems of a practical nature have to be considered before allotting a deserving place for the subject in the Intermediate classes, in particular.

These objections and practical problems, we beg to discuss in our own way with the hope that they will rouse some fresh interest in

the minds of the pilots of the educational destinies of the land.

It has already been said that the place of Indian History is unsatisfactory in the S. S. L. C course. But against this, it is argued that the curriculum is already overcrowded in the High-School classes and if Indian History is shifted to the C. group, it would be an additional burden for the already over-worked student. We see fortunately no graver objection than this, so far as the High School is concerned. The evil of consigning Indian History to the B. group is seen only too clearly when that unfortunate subject is treated with but step-motherly affection in almost every High School. Even in the VI Form, only a small portion is prescribed to be done, and that little is done in a halting and half-hearted manner for a few months till the time of the annual inspectional visit. Later in the year the subject generally yields place to the more important sister subjects in the neighbouring groups A. and O. which happen to be in need of more periods in the school time-table. When the authorities themselves treat it like this, need it be asked that it fares worse still in the hands of the students. Now-a-days students have a sort of contempt for the B. group and because these subjects are not brought up for the public examination, the students leave Indian History to itself and turn their attention to better things.

The efforts of class-masters to induce the students to a little attention at least for these subjects prove unavailing. Matters grew worse when the S. S. L. C. Board issued a notification that in the Supplementary course, students need not study the B. group. The Department then issued circulars asking heads of institutions to impress upon the boys that deficiency in the B. group might bar their admission to the University courses of study. A later notification compelling supplementary candidates to study the B. group has not mended matters. The neglect of the B. group is as strong as ever,

These facts show only too well that the authorities were alive to the unsatisfactory place allotted to the B. group in general and Indian History in particular in the School-Final course of studies. Unless Indian History is given a place in the C. group, students will but pay scant attention to it. Here comes the contention that by so doing, we may perhaps be burdening the C. group all the more and making the boys toil harder still at the overcrowded group of compulsory subjects.

But it is however possible to give it a place in the C. group and any possible objection of burdening that group may be answered thus. Instead of making the History students study a prescribed special period or periods and an outline survey of the History of England, the Department might ask them to specialise in two special periods, one from Indian History and the other from the History of England. The outline portions of the two Histories may be presumed to be taught in the IV and V Forms. Or, the outline survey of Indian History may still be kept in the B. group, while the special periods are studied in the C. group. In this case, instead of doing an outline survey of the History of England, we only substitute a special period in Indian History. In the IV and V Forms, the History of England is gone through at some length and so the touch is not lost. It may perhaps be contended that in the B. group, Indian History will yet have to be studied, at least in outline. We would however answer: better take away Indian History from the B. group: better not study it at all, if you cannot study it properly. For, removing it from the B. group is better than keeping it there and neglecting it wholesale. One point will, however, be gained; students will perforce be made to study at least one period of it well, inasmuch as a minimum in Indian History will, in that case be insisted upon in the public examination.

Another suggestion may also be made here.

Let there be two histories out of which students may be asked to choose one. Let the syllabuses be as they are now; for example, the History of England, as per S. S. L. U. syllabus and Indian History as per that of the Matriculation. Let students taking the Indian History group in the S. S. L. C. be made to take up the same in the Intermediate.

This brings us to the question of putting up Indian History in Group III. of the Intermediate, so as to provide facilities for students taking up the Indian History group in the S. S. L. C. to continue their specialisation in that group in the Intermediate. Our contention to find a place for Indian History in the Intermediate will appear quite logical when it is seen that there is an awkward gap in the Intermediate between the Indian History of the S. S. L. C. and the Indian History of the B. A. Pass and Honours courses. It is very natural for students to forget what little they picked up in their S. S. L. C. course, during the two years of the Intermediate, where the subject at present does not find a place. It is rather curious to give a place to Indian History in the higher courses, to prescribe big books on the subject, and to expect a deep knowledge thereof, while there has been no suitable training ground in the immediate lower classes. It therefore appears to be a logical necessity to give room to the subject in the Intermediate, considering the introduction of the subject in the higher courses of University studies.

But it must be here admitted that if there are objections against bringing Indian History to group C. of the S. S. L. C. system, there are still more serious protests against its being introduced in the Intermediate. It is said that Indian History has not yet risen to the rank attained by the sister-histories of other countries and hence that it is unwise to place it on a level with the other histories in group III. of the Intermediate. In other words, it is argued that Indian History is still in its formative stage and therefore unfit

to be compulsorily studied by the Intermediate students. This contention is rather queer, if not absurd. If this argument is at all true, then why give it a place in the Pass and Honours courses?

It may perhaps be said that there are no adequate text-books and other accessories needed for a scientific study of the subject. This is rather a weak argument. There are already some good books on the subject. More books will be coming into existence, if only the study is introduced in all the College classes. A great deal of enthusiasm is being exhibited in carrying on research work in this country. Appreciable progress has already been made. The constructive aspect of Indian History is thus engaging the earnest attention of Indian savants and Western scholars and it will not be too much on our part to expect a good harvest of books, throwing fresh and glorious light on some of the obscure portions of Indian History.

Again it is argued in certain quarters that it is at all the ideal of Indian students reading Indian History is to be realised, it must be done by private and special study of the subject by the students themselves and that it must not be thrust upon them as a compulsory course in the class-room. This is evidently preaching from serene heights. It is against human nature in general and against student nature in particular to expect such ideals and responsibilities to be realised by the students. At least a large majority of the student population, is swayed by mercenary and utilitarian considerations and they would hardly take to the study of the subject, unless it be made compulsory.

Further more it is maintained with some force that the introduction of Indian History in group III. of the Intermediate burdens the course of studies that is already felt as burdensome. This objection will certainly be valid if a place is sought for Indian History in addition to and

along with the other Histories already in the group. But if, on the other hand, Ancient Indian History is offered as an alternative for Grecian and Roman Histories, and the modern period of Indian History for English History, the objection will perhaps vanish.

Against this, it may be urged that Ancient Indian History may prove a poor substitute for the Histories of Greece and Rome. But it still remains to prove in what respects Indian History is inferior to the Histories of Greece and Rome. The glories of Ancient Greece are perhaps reflected with equal grandeur in the achievements of the heroes of the Ancient Ind. From every point of view, political, social, religious and economic, the pages of Ancient Indian History offer as good parallels to the records of Greece and Rome.

Nevertheless let us concede so far that the Histories of Greece and Rome should on no account be superseded by Indian History. We therefore pray that the present ambitious syllabuses of those histories may, at least, be so curtailed as to admit of only one paper, while Ancient Indian History has another paper. The course in Modern History may also be cut short so as to admit of only one paper, while the British period of Indian History has another paper.

Thus it is quite within the range of practicability to give to Indian History the high place it deserves in the educational curricula of the land. If our plea for improving the place of Indian History in the School and College courses of study has any force, we hope that the foregoing suggestions with slight alterations, if necessary, can be taken up for serious consideration by the educational authorities.

G. SATYANARAYANA MURTI.

T. S. VIRABHAGAVACHARI.

OLD BOYS' ASSOCIATIONS AND THEIR WORK.*

GENTLEMEN,

I AM very thankful for this opportunity I have been given of welcoming you here and exchanging friendly greetings with you. Old friendships are always dear alike in the contemplation and in the renewal, and old school-boy friendships, now that we look back upon them as men, have a tenderness, a grace and a charm all their own. At this long distance of time all pains and bitternesses have vanished, a halo as of the soft moonlight rests on our boyish experiences, and, as the poet says, 'the thought of past years doth breed in us perpetual benediction.' As we turn our thoughts to those happy days, a succession of familiar faces pass before the mind's eye filling our hearts with joy or sadness or amusement. The mischievous urchin who gave no end of trouble to his parent or teacher, who could be seen anywhere but at his studies or at the school has perhaps now settled down into a peaceful and orderly citizen, grave and meek, and surrounded by children who do nothing to remind him of his boyish freaks and childish escapades. The weak, shy fellow, gentle and timid beyond measure, whom a sharp look was enough to draw tears out of has gone on life's journey beloved by all, or has suddenly developed possibilities undreamt of by his most intimate friends and associates. The bright-eyed, happy lad, full of fun and jokes, in whose presence it was not possible to be gloomy or sullen, has settled into a religious melancholy and no joy, however great, can possibly elate him. Many a boy whose precocity was the wonder alike of the schoolmaster and the examiner has steadily deteriorated in life and gone about the world, a negation of all the bright promise of his early years. A larger number still whom a few years of school-life have made neither better nor worse than they would otherwise be, are 'keeping along the cool sequestered vale of life the noiseless tenor of their way.' Particular instances of

these and many more types of human character, as varied as they are interesting, start before our vision now, and not one of these that would not, when asked, say, "Oh, give me back one hour of my boyish days, its joys and sorrows, its hopes and fears, its fancies and realities!"

But it is not of these alone that we are reminded now. Closely associated with these and calling up equally happy reminiscences are those whom we are proud to call our masters. The simple, honest, truthful soul whose faith would 'move mountains' and of whom might be truly said what Dr. Johnson said of Dr. Levette,

His virtues walked their narrow round,
Nor made a pause, nor left a void,
And sure the Eternal master found
The single talent well employed,

the hard, stern teacher who was the terror of the truant and the lazy boy, the kindly man who freely and unreservedly gave his intellectual all to his pupils both at school and at home and who was always seen surrounded by a number of young fellows learning and being taught, the sickly scholar 'with spectacles on nose' but 'no pouch on side' who could be seen of an evening twilight sitting cross-legged and poring over books, the cheery-looking optimist, a very picture of zest and jollity, who would tell you stories by the thousand and entertain you with his world lore for hours together and in whose company it was impossible to have a dull moment, the young teacher who would consume cartloads of closely-printed six-penny novels in no time—all these who once trod these halls, but alas, are now no more, have contributed to the make-up of our moral and intellectual being, and it is our duty, now that we are assembled together, to breathe a kindly thought, express an earnest wish, and utter a devout prayer that God be pleased to speed them on to their salvation!

From these it is a pleasure to turn to those whom we have the good fortune to have in our midst, and at whose feet it was our proud

privilege to sit and learn. Foremost among these, and occupying a large space in our minds and enshrined in our hearts in reverence and in love is the great man who now spends the evening of his life at Mosur (M. R. Ry. M. V. Subramania Iyer Avl., former Headmaster of the School). A great educationist and greater man, he has been to us an exemplar of all that is worthy in human nature, and no better example of purity, simplicity and saintliness can I hold up to the young men that I see before me here. Personally I am much indebted to him. For long after I had left school, I continued to sit at his feet learning lessons of school-keeping and school-mastering, and after more than a dozen years of experience as Headmaster, I may tell you it is hard, very hard indeed, for any Headmaster to approach him. From year end to year end, he was there at his post

"Steadfast, serene, immovable, the same year after year."

Troubles might assail him, vexations might crowd thick upon him, bundles of red tape might oppress him, and yet not one word of anger nor one expression of impatience would escape his lips. And now after nearly thirty years of hard, strenuous work, he has retired into private life, and like the Rishis and Acharyas of old is living a religious life, the fruit of which is, as our Upnishads declare, "He then becomes this—Brahma whose body is the ether, who is the real soul, who sports in life, whose mind is joy, whose peace is abundant, who is immortal." (*Taithrayopanishad*). May he long live so

Old boys of the school, I should like now with your permission to speak to you on a matter of business. Your Association has been in existence for four years, and I take it that you will not content yourselves with being merely a *tamasha*-celebrating body, though *tamasha* celebrations are necessary and have a use. If this were a private school, I should suggest that you so qualify

yourselves by your meritorious work as to return one or two representatives of yours to the Managing Committee. But this is a Board School, and the privilege of being associated with the management is not to be yours. All the same, you have many other ways of making yourselves useful. I should suggest that you immediately take up the question of relief to the poor scholars at school. It is a matter of common observation to us all that education in this province is getting more and more costly. Sometime ago I was talking to a professor in a first-grade college in the United Provinces, and he told me that what struck him more than any other in Madras was the cost of education and the high rates of fees that boys were paying. A comparison of the fee rates obtaining in this province with those elsewhere proves the truth of this observation. In fact, we in Madras pay the highest rates of fees in all India. But this is not our only disability. The number of Secondary schools is not large enough to cope with the growing demand for education, existing schools are congested, the towns in which they are situated are getting over-crowded, and all these circumstances contribute to the rise in prices and increase in the cost of living. Against such odds has many a parent to struggle, and a large number of the poor but talented pupils of the community run to waste. And it behoves us all who have had the benefits of education to prevent such economic loss. The need for help will be better realised when it is remembered that this being a Board School absolutely no provision has been made for free scholarships, partial or full. If we in Tiruvalur that gave birth to a Sir T. Muthuswami Iyer cannot realize that mighty possibilities may co-exist with dire poverty and provide for the necessary conditions for drawing them out, how are we worthy of him?

There is yet another matter to which I should like to draw your attention. A great deal is now being said about moral and religious instruction in schools. There are those who consider that reli-

* An address delivered at the School Day Celebration, Board High School, Tiruvalur, by Mr. P. A. Subramania Aiyar, B.A., LL.T., Headmaster, Hindu High School, Triplicane.

gion should be taught systematically at school as though it were a secular subject. There are others who say that religion should be left to take care of itself and that it should be eschewed from schools. There is yet a third party, viz., the Government, who though professing perfect religious neutrality themselves and so not allowing religion to be taught in their schools desire that it be taught in schools under private management as a valuable ally on the side of loyalty and respect for constituted authority. To my mind, it seems very necessary indeed that the young in our schools should be made familiar with the high ideals of life as preached and practised in this country in ancient times, and made also to cherish respect for them and a desire to live up to them. This end can certainly not be secured by *secularising* religion, that is, by making it taught as an ordinary school subject by any person and at any time. In a sense, religion, as Matthew Arnold defined it, is 'Morality touched with emotion', and in the inculcation of religion, the point to be most attended to is the giving proper direction to, and the chastening of emotion, the enlisting of youthful enthusiasm, ardour and capacity for generous enthusiasm towards the development of what Professor Lloyd Morgan calls the *religious attitude*. It is not the intellectual acceptance of this dogma or that creed that matters—but it is the attitude of submission and humility and of reverence for all that is noble and pure and honourable as the highest expression of God's will, it is this that matters.

There are still a few, very few it may be, amongst us who embody in themselves and act out in their lives all that we desire our children to imitate and follow. The Old Boys' Association may consider it one of their chief functions to make possible the coming of such men here and giving to the boys of the school the benefit which their personality no less than their counsel of wisdom is bound to convey. Occasional discourses by them—say once in a month or two—may be arranged for

and the incidental expenses borne by this association.

Talking of religious and moral education in schools, I am reminded of the question very often put to us, 'Have we any religion at all?' To people living in South India, religion is almost synonymous with sacerdotalism and rituals, and when we now find that owing to various causes over which we have no control, much of our rituals has been neglected, the natural answer is, 'we have no religion at all.' And a certain sect of religious reformers therefore would say, 'let us go back to the old times, let us revive all our ceremonies and rituals, and as to what is called modern civilization, let us have none of it.' There is yet another class consisting of a very large number of people to whom religion has no significance and in whose estimation progress consists in multiplying our wants and increasing the material comforts of life. 'Competition, cold, cruel and heartless' which, as Swami Vivekananda said, is the law of Europe has become the rule of life among us also, and the spirit of industrialism and commercialism with its attendant evils of over-crowding in towns and cities, rise in prices, physical and moral deterioration, drunkenness and unemployment is fast spreading in the country. Little do these people see to what depths of degradation and misery have the masses been brought in the countries of the West which are in the van of 'progress' as I have defined it. Speaking on this point years ago, Huxley said, "Even the best of modern civilizations appears to me to exhibit a condition of mankind which neither embodies any worthy ideal nor even possesses the merit of stability. I do not hesitate to express the opinion that if there is no hope of a large improvement of the condition of the greater part of the human family; if it is true that the increase of knowledge, the winning of a greater dominion over nature which is its consequence, and the wealth which follows upon that dominion, are to make no difference in the extent and the intensity

of want with its concomitant physical and moral degradation amongst the masses of the people, I should hail the advent of some kindly comet which would sweep the whole affair away as a desirable consummation." Referring to the same condition of things in England, Ruskin said, "Alas, if read rightly, these perfectnesses are signs of a slavery in our England a thousand times more bitter and degrading than that of the scourged African or Helot Greek. They may be beaten, chained, tormented, yoked like cattle, slaughtered like summer flies, and yet remain in one sense, and the best sense, free. But to smother their souls within them, to blight and hew into rotting pollards the sucking branches of their human intelligence, to make the flesh and skin into leathern thongs to yoke machinery with—this is to be slave-masters indeed; and there might be more freedom in England, though her feudal lord's lightest words were worth men's lives, and though the blood of the vexed husbandman dropped in the furrows of her fields, than there is while the animation of her multitudes is sent like fuel to feed the factory smoke, and the strength of them is given daily, to be wasted into the fineness of a web, or racked into the exactness of a line." It was a contemplation of this state of things that made Mr. E. B. Havell tell the Indians, "None but the ignorant or charlatans will recommend you the paths of Western commercialism as leading to true national prosperity.....Nowhere in India—not even in the direst time of famine and pestilence—is there such utter depravity, such hopeless physical, moral and spiritual degradation as that which exists in the commercial cities of Europe directly brought about by modern industrial methods."

The question may well be asked, "Are we to go on in the same path, repeating the mistakes of the West and repenting perhaps when it is too late?" Ought we not rather to take lessons early and mend? I am perfectly willing to grant that it is absolutely impossible for us to revive the

past, but it is perfectly possible to infuse into the altered conditions of the present the spirit of the past. That spirit is well expressed by the statement which the Brahmin Dandin is reported to have made before Alexander the Great: "We honour God, love man, neglect gold and condemn death; you, on the other hand, fear death, honour gold, hate man, and condemn God. Your mind is filled with vast desires and insatiable avarice and a diabolical thirst for Empire. You are made much like other men, and yet you would obtain by force whatever mankind possesses.....It is desire that is the mother of poverty which you seek to cure without knowing the proper remedy."

It is not given to all of us to scorn life and its pleasures, live only on fruit and dedicate ourselves entirely to the service of humanity like Mr. and Mrs. Gandhi, but it is possible for all of us to content ourselves with the bare minimum of physical wants and spend no more. All cannot like Ishwara Chandra Vidyasagar say, "If the Governor of the province wishes to see me, he must be prepared to admit me to his presence only with my national dress on. I will not forswear my nationality for the sake of any individual in the land." But all can avoid unnecessary and superfluous expenditure on dress, conform to just the standard of decency in matters of dress set for us by those above us, and avoid appearing in top-hats and boots and interposing eleven layers of cloth between the human body and God's air. We cannot like some of the most orthodox people of to-day travel three days by rail and keep from food and drink of any kind all the time. But surely it does not mean that we should go to any railway refreshment room and spend three or four rupees on *Chotahazri* or dinner. One can understand and appreciate the desire to beautify one's home, but India need not on that account import from abroad over thirty lakhs of rupees worth of toys and games requisites every year. We cannot like *Pattinathu Pallai* of old give away our all in a fit of

religious ecstasy and go about the world with the heavens our only roof—but we can, each in his own way and to the best of his ability, put by something for the comfort of the sick and the relief of the distressed. It is this spirit of *Vairagya* in the little details and minute concerns of life that should form the keynote of our lives, and it is only this that will ensure individual peace and freedom, save India upwards of thirty crores of rupees annually, which she now spends on costly luxuries, and justify our proud descent from the great sages of old.

THE VALUE OF SCIENTIFIC TRAINING FOR INDIAN YOUTHS*

WHAT is meant by the word Science? It has been variously defined, but it can be simply put down as a system of knowledge from which certain general principles and laws can be deduced. It may be asked whether a particular set of facts will constitute a science by themselves. The answer is in the negative. There must be sufficient accumulation of knowledge on any particular subject, to enable us to generalise and formulate certain laws and principles. Thus the existing sum total of knowledge on any particular subject at a particular period may not be enough to warrant the name of a science, but as time goes on, and more and more facts are gathered in, the subject assumes a wider and wider aspect and gradually passing from its original infantile condition through the different stages as in man, reaches at last the healthy adult condition. Many subjects which were in the 18th and 19th centuries nothing more than mere collections of facts, have since attained the distinction of being included in the category of sciences. The period of transition naturally varies in different cases, depending upon different causes but what all those causes may be, it is hard to know or guess. In a particular case, the amount of knowledge to be gained may be small but this is not all. In the latter part of the 19th century, Galton laid the foundation of the study of Eugenics in a systematic manner and he had the rare good fortune of seeing it almost perfected as a science even in his own life-time. He and his collaborators set to work with great earnestness and in a short time they were able to build up the new science of Eugenics. Similarly, in the last century, medicine was considered as one science, but owing to the growth

* A paper read by Mr. S. Ramaswamy Aiyar, M. B. & C. M., at the anniversary meeting of the H. G. S. Secondary School, Valcom.

of knowledge in its different branches, each of these latter has now come to be regarded as a science. Bacteriology, Electro-Therapeutics and Radium are a few examples. I have so far explained how a science comes into being. Let us now examine whether as soon as a subject attains the distinction of a science, there is a stop in the direction of further work. No; scientific knowledge may be aptly compared to two diverging rays of light proceeding from a common source. Increase of knowledge and broader grasp of facts do not take you a bit nearer the goal, at least in any appreciable degree; the deeper you go, the more secrets you wrest from Nature, the subject becomes more and more complicated, vaster and vaster, the final goal seems to be as far as ever, indeed further than at the beginning. For, has not the human mind been incessantly working for many thousands of years now, hangering after the solution of the problem of life, without having got a bit nearer the desired end, and who knows how many millions of years more will elapse before the solution will be in sight, if indeed the millennium will ever come at all? This idea is simply and beautifully symbolised in our own arts, where Goddess Saraswathy is represented with a book of *śadjan* leaves in one of her hands. To illustrate this point from the western sciences, it was the brilliant conception of that eminent Frenchman Pasteur, that minute invisible vegetable cells which he called Bacteria gave rise to many diseases in plants and animals, that laid the foundation of the science of Bacteriology. Lister took up the idea and conferred an inestimable boon on suffering humanity by the discovery of his Antiseptic System. These two names are no doubt very great, to be ever held in sacred memory and the two events are certainly epoch-making. But where are we and what is our position to-day, after continuous work in this subject, by an army of bacteriologists in every conceivable country? No doubt, much knowledge has been gained but

has the matter in any way become simpler? No indeed the opposite has been the case. The subject has become immensely vaster. The life history of a science may be compared to a river, which begins as a mountain-side brooklet and after swelling to a large size, empties itself into the mighty ocean. Gentlemen, it is therefore important that every available man in a country must take up the study of science. It would seem—though I have no personal knowledge—that it has been put forth as a serious suggestion that the study of science is unnecessary and the study of classics alone is sufficient or should be given preference. This suggestion is not only wrong but positively disastrous. There can be no manner of doubt that scientific study makes for the moral, mental, and material progress of nations. In the case of the first, some legitimate doubts may be raised whether science does not make human nature more depraved; or how could one explain such acts of Germany, the Apostle of Kultur, as submarine warfare, air-raids on innocent civilian areas, the use of chlorine gas and liquid fire, in the present war? Such instances are however rare and form exceptions proving the rule, in the history of nations; therefore it is not necessary to go into detail in explaining the matter. Again, it has been urged that the study of science makes men materialistic. This was no doubt true once, that is, at the beginning, but is no longer so. Scientists were at first—at least some of them were proud to be called—atheists. Then came the agnostic but the latest scientist is a spiritualist and the coming one may be expected to be what I may call an ultra-spiritualist. Therefore this latter materialistic argument of the anti-science school cannot be maintained. In ancient India, at a time when the present European nations were in a state of doubtful civilisation, scientific study was given great prominence and all the then known sciences were studied with great earnestness, not certainly in well-equipped laboratories as at the present day, but in the laboratories of

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to the

Nature. Men of scientific learning were honoured and rewarded by the kings and nobles. On account of the numerous invasions of foreigners, not only was there no scope for further development of the sciences, but much of the knowledge that our ancestors once possessed has been either lost or wantonly destroyed. It is wrong to say that our ancestors had no science and that we could also afford to be like them. Then again the argument that the study of science is not useful in the ordinary course of life is entirely without anything to substantiate it; on the other hand, there are many convincing reasons to prove the contrary. It is common knowledge how the rapid advance of science in America, England, Germany and other countries during the last two centuries has been the cause of their greatness. As early as half a century ago, Germany was distracted by troubles, internal and external, and occupied a low place among the nations. But soon came a renaissance; scientific study made enormous progress, with the result that Germany is among the foremost nations to-day. To quote one instance: German chemists made a special study of the coal-tar products; they were able to find out by research easy and cheap methods of making aniline dyes from the coal-tar products, on a large manufacturing scale. The processes were evidently kept secret and hence they were able to compete successfully with other nations in the markets of the world—in fact Germany monopolised the trade of the world in this particular branch, while other nations had to look on. The discovery of radium by a French scientist, with its vast potentialities for benefiting mankind, is one of the most wonderful achievements of scientific research. Again, the history of the rise of Japan is still fresh in our minds—how till very recently she was a poor country and how waking up to her situation, she made strenuous efforts to advance in science and eventually succeeded by so advancing, in building up the latest and one of the most powerful

empires of the present day, all these, indeed a wonderful chapter in the history of that nation. On the other hand, the present condition of such countries as India, where the people have to slavishly depend upon other nations for whatever science they may be said to possess, is indeed miserable. On account of want of knowledge among other causes, there is no industrial and commercial development—there is no industrial and commercial independence. India has been under the British rule for a century and more, yet no organised attempts have been made to train her youths in systematic scientific study. As a result, there are no skilled men of science to advise and guide the captains of industry. You are probably aware that many highly-paid experts had to be got down from the foreign countries for designing and bringing into existence such great projects as the Electro-hydraulic Scheme in Bombay and Tata's Iron Works at Sakchi. Consequently, there is no industry in the country worth the name except perhaps cotton. We have, no doubt, some commercial dealings, where we figure as sellers of raw products and buyers of finished manufactured articles—a state of affairs which ought to be perhaps somewhat the other way. This lamentable state of affairs is due to the want of great scientists in the country and consequently expert scientific knowledge. The value of scientific knowledge is hardly recognised in India. Without such training we cannot have great scientists: in the absence of the latter no research work is possible and consequently no original discoveries will be coming forth. Therefore original research work is very badly needed in India. It is certainly a disgraceful state of affairs that India, with every facility to become one of the foremost manufacturing countries, should remain—rather should be allowed to remain—in the rear, depending for even such ordinary necessities of life as matches, paper, etc., on other countries. Large quantities of raw materials are exported to

foreign countries to be returned to us as finished products at greatly enhanced prices. Again, though India only passively participates in the war, our export trade of raw materials is at a standstill. Many places are hard hit because we cannot find a sale for the raw products, nor are we in a position to manufacture finished articles out of them. This would not be so if we had been a manufacturing nation. Take for example, the case of copra. If we are now able to utilize this material, of which we have now too much, for making candles, etc., we certainly need not suffer now. Gentlemen, in these days of keen competition, every nation should be at least self-contained in the matter of industries; and unless we Indians look ahead now, our power of recovery will be gone and we will have to remain dependent upon others for ever, even for the ordinary comforts of life. Leaving now the material and financial aspect of the question, let us proceed to examine whether scientific research will be of value in any other fields of activity. The seeker after truth can certainly find scope for work in many other directions. Take for example the ancient Indian systems of medicine—Ashtangabrydaya, Unani, and Chintamani. These systems once attained prosperity and proficiency in their own way. Though much knowledge has been lost, a large volume of useful material is still left. If this knowledge could be refreshed and represented in the light of the present day western allopathic medicine, much could be gained. For instance, the herbal medicines used in India by the Vaides and Hakims are some of them very efficacious remedies but there is not enough knowledge as to their composition, active principles, actions, uses, and dosage. If these medical herbs could be analysed by competent men, in properly-equipped laboratories and their nature ascertained, allopathic Doctors would make use of these drugs with great benefit to the sick and the suffering.

It is not quite right to say that the seriousness of the situation has not been realized, but no

action seems to have been taken in the right direction. Students are sent to foreign countries, with scholarships tenable for a few years, to study scientific and technical subjects: but though this has now been done for some years both by the British Government and the Native States, much good has not come out of it; with few exceptions most of the students return as empty as they went. So far, scholarships do not appear to be even one of the important means of promoting scientific studies—at least in the majority of cases.

Now let us consider the names by which a changed condition of affairs could be brought about. In the first place, we must examine the suitability of the present educational methods in India; whether the present system provides proper facilities for the prosecution of scientific research. The old system did not evidently meet the wants and so on account of a desire for improvement, Lord Curzon's University Act came into existence. Whether the new system is a decided improvement on the old, time alone can show; but the experience so far gained is distinctly against the new methods. The proof of the pudding is in the eating of it. The new generation of students seem to be distinctly inferior. Though the reason is not yet perfectly clear, the deterioration cannot be maintained to be due to inferior material; faulty methods seem to be the only explanation which suggests itself for the present. The educational authorities are not to be solely blamed. I maintain the fault is partly with the public also. In all countries there ought to be strong and healthy public opinion in matters educational as well as in others.

What ought to be done is this? The present system of education must be so remodelled as to suit the present needs and condition of the country. The young boys of six or seven should spend about half a dozen years in picking up a fair knowledge in Elementary Mathematics and the language of the country; then the student should specialise in

a particular science or technicality. He should continue his studies another ten or fifteen years. At present the foreign language difficulty is indeed a serious problem. The student has to acquire a good knowledge of a foreign language before he is in a position to take up an advanced course of studies. This latter difficulty, will, I venture to hope, in course of time be overcome by making vernacular compulsory and the medium of instruction in all subjects. This condition of affairs cannot be had at present, and so we have to face the inevitable and take things as they are. After the ten or fifteen years' course, research work should be undertaken. For this purpose we want a large number of men. I have already detailed to you the necessity and advantages of research work. Research work must be one's life-work. The research professor or scholar must devote the whole of his time and energy to the work before him. No other business should be combined with research work. To attract competent men who would work with no other ideal before them than the acquisition of knowledge for its own sake, a substantial salary must be paid and a decent pension ensured. How are we to do all this? We have been too long depending upon the Government to do for us this and many other things. It is no longer of any use to wait. The people must awaken to a sense of duty to themselves. So far nothing practical has been done. The great millionaire, philanthropist and patriot, the late J. N. Tata, started work in the right direction. The Bangalore Institute of Science was the outcome of his munificent liberality but for some reason or other, not much has been heard about it. The reason given to me by a great man in the know is that there is too much of officialisation. What we want is that in every part of the country there must be laboratories fitted up to meet the most modern requirements and properly endowed, manned by men of established reputation, where numerous young men can continue scientific studies and research work.

Both the professors and the scholars have to be paid amply. Though the Government may render whatever help it is in their power to do, the initiative has to proceed from the people and most of the burden must be borne by them. Recently we have had ample illustration of the fact that private philanthropy can rise to the occasion, if only the generality of the people are made to know what is really wanted. In England and other countries, public bodies render great help for research work. I may quote the instance of the British Medical Association. This body encourages and finances research work in a variety of ways. Similarly in India, public bodies such as the provincial organs of the Congress must take up the cause. May we not also hope that the new Universities will make a new and powerful move in the matter? Every Travancorean must be alive to the fact that there is not even a single laboratory in the whole of this State where scientific research work is and can be done. If I, as a general practitioner, want to get an expert opinion on any specimen of pathological or bacteriological importance, I have to seek help outside the State and that—at a cost quite beyond the powers of a patient of average means. Therefore gentlemen, as a true Travancorean and Indian, I appeal to you that it is high time that public opinion should be focussed on educational problems and a gradual and steady move made on the lines indicated above.

In Active Preparation.

COLLEGE ALGEBRA

A Text-book for the Intermediate and B.A. Classes

BY

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Srinivasa Varadachari & Co., Madras.

MANUAL TRAINING IN SCHOOLS.*

IT is an admitted fact that those who think should work and those who work with hands should exercise their minds and that moral excellence lies in this co-ordination of action and thought. A sound educational training should make provision for the union of mental and manual trainings not only for their mutual success but also for the success of the goal of all true education. This has been the conclusion arrived at after careful investigations by educationists like Froebel and Pestalozzi, and the aim of these thinkers in including hand-work as a part of general human culture is more educational than commercial. Brain is not the only organ requiring exercise and development and in order to do justice to all the human powers and activities there must inevitably fall opportunities for sense-training also. On this ground we can justify any attempt against specialisation in elementary schools with any eye to a material benefit. The recommendation of Froebel that manual occupation should necessarily share in every true education is respected and followed in schools. But Froebel never intended that this manual training should stop at any stage in the educational career. He strongly advocated the policy of the marching abreast of the creative skill of the hand and the literary studies so that the aim is to make an all-round person out of the child under such discipline. Marching, drill, the manipulation and cutting of paper patterns, the building up of wooden bricks prevail in many places with the intention of refining the touch, of sharpening the powers of observation, and of creating a sense of beauty and symmetry. The 'Sloyd' system consisting of exercises in wood-carving confers an inestimable strength to the cause of our education. Side by side with the creation of general aptitude in students, a respect for manual labour is created. The frequent and increasing distaste for hand-work possessed by many young people can be easily effaced

by the increased adoption and encouragement of manual training in schools.

Claims of manual training can be asserted on other grounds. We should not think that words are the only vehicles of our ideas. Ideas, if there are any, can show themselves in delineation, design modelling or in some skilled work of the hand; but if the ideas are absent, there can be no worthy outcome either through hand or voice. We must remember that drawing, design and representation which stand not very high in the estimation of many young men are as important as subjects for study as reading and writing.

In many of our schools there are students who are against book-reading, who rebel against exercises in recitation and composition but who show delight and readiness to deal with things to be shaped, to be taken to pieces and to be rebuilt—in short with concrete realities of life. It is therefore urged that every school must, as far as possible, try to give to the largest possible number of pupils a chance of finding something pleasing to them. If the 'Sloyd' system be introduced in every school full opportunities are opened out to the students for the creation and development of a sense of responsibility, a sense of beauty and symmetry. These qualities inherent only in sense-training cannot be easily created and developed in any scheme of exclusive mental training.

There is the other side favouring the adoption of manual training. As a part of technical education it is highly valuable and the national prosperity of a country depends upon the skill of the manufacturers and labourers. A certificate of a course in manual training is a pass-port for work in some branch of productive industry and the working classes of a country live upon the income which manual training brings to them. The character and other moral necessities would be stifled under any excitement to impart manual training exclusive of the teaching of abstract subjects for the unfettered growth of human qualities. In any well-considered scheme of technical education, a proper

* A lecture delivered at the Y.M.C.A. by K. Ramachandrar, B.A.

place must be given to mental training; otherwise the undue development of the senses at the expense of the mind will keep the mind unstirred and will cramp the higher nature. In old days the 'apprentice system' worked to the full realisation of the ideals. The personal relations existing between master and pupil who worked side by side without feeling their mutual difference were so cordial that little danger existed to the detriment of the 'human side' of the apprentices. This system became antiquated and obsolete after the application of steam power to machinery during the 19th century. Manufactures became large establishments, labour-saving appliance introduced increasingly and competition became very keen. Pupils who sought technical education in factories or workshops could not get proper instruction from the untrained foremen to whose care the pupils were committed by the busy masters. These masters had to be away from their pupils and their relations were distant and formal.

This unsatisfactory state of affairs continued till the appearance of technical schools, and it is to these that many look for the acquisition of manual knowledge. In some of the better schools pupils take lessons in language, drawing, design as regularly as those in subjects preparing them for their professions. The enlightened founders of these institutes do not believe in the inconsistency or antagonism between the simultaneous culture of the hand and of the mind. Everywhere the feeling prevails that manual training defeats itself without the following qualities begotten of a mental training, namely the enrichment of the character, the awakening of dormant faculties; so that the labourers are helped to have "a wider outlook upon the world of nature, of books, of men"; "so that they prepare themselves for the duties of a citizen and parent take an honoured place in the ranks of industry."

EXERCISES FROM THE LABORATORY RECORD BOOK.

I. THE BALANCE.

(a) Find the resting point of the Balance with empty pans.

(Take the mean of six readings.)

(b) Note the change in the resting point when a centigram is put in the right-hand pan.

(c) Find the weight of the given body to the nearest centigram and to the nearest milligram.

NOTE:—Find the pair of weights (find the resting point in these cases) differing from each other by .01 gm. within which the weight of the body lies, and deduce the weight of the body to the nearest .01 gram and .001 gram.

(a) The balance was set swinging with empty pans by raising the handle slowly and gently waving the hand near one pan so that the air might disturb the position of rest. The first few oscillations were neglected. The maximum distance to which the pointer swings on the right and the left was observed in several cases and noted.

(The Balance No. 4 was used.)

FIRST SET OF READINGS.			SECOND SET OF READINGS.		
Left.	Right.	Resting Point.	Left.	Right.	Resting Point.
8 Dns.	12 Dns.	9.0	4	14.0	9.0
6.7	11	8.9	4.2	13.7	9.0
7	11.2	9.1	4.6	13.8	9.0
7.8	10.6	9.0	4.9	13.0	9.0
7.5	10.2	8.9	5.1	12.9	9.0
7.9	10.1	9.0	5.5	12.5	9.0

Mean resting point = 9.0. Mean resting point = 9.0.

∴ The resting point of the balance = 9.0.

(b) A centigram was put in the right-hand pan and the handle was raised. Readings were taken as in the previous case.

LEFT.	RIGHT.	RESTING POINT.
0	7.1	8.6
.2	6.9	8.6
.6	6.6	8.6
.9	6.2	8.6
1	6.2	8.6
1.1	6.1	8.6

Mean resting point = 8.6.

For 1 centigram the difference in resting point is 9.0 - 8.6 = 5.4.

(c) The iron cube given was placed in the left-hand pan and weights were placed in right pan to counterpoise it. Successive weights in the box were tried.

TOO HEAVY.	TOO LIGHT.	TOO HEAVY.	TOO LIGHT.
10 gr.			7.50 gr.
8 "	5 gr.	7.70 gr.	7.60 "
	7 "	7.650 "	7.64 "
∴ The wt. is bet. 8 & 7 gms.		The wt. is bet. 7.65 & 7.64 gms.	

When 7.64 gm. was put.			When 7.65 gm. was put.		
LEFT.	RIGHT.	MEAN.	LEFT.	RIGHT.	MEAN.
5.5	18	9.3	0	8	4.0
6	12.6	9.3	5	7.8	4.2
6.1	12.8	9.5	9	7.1	4.0
6.8	12.4	9.4	1	7	4.0
6.5	13.2	9.4	1.2	6.8	4.0
6.7	12.1	9.4	1.4	6.5	4.0

The mean Resting point = 9.4 The mean Resting point = 4.0

9.4 is nearer 9 (which is the resting point when the scales are empty) than 4.

Hence the weight of the cube (iron) given = 7.64 gms. to the nearest centigram.

If the difference in the resting point be 5.4 the weight is .01 gr.

$$\dots\dots\dots 4\dots\dots\dots \frac{.01 \times 4}{5.4} = .0007.$$

The weight to a milligram = 7.640 gr.

II. COMPOSITION OF CHALK.

(a) Measure the carbonic acid gas evolved by a carbonate when it is dissolved in an acid and then find the composition of the given carbonate.

(b) From the volume of the gas evolved, calculate the weight of 1 litre of the gas.

(c) Heat about .3 gr. of chalk in a furnace and find the percentage of carbonic acid in it.

(a) Apparatus:—Reynold's apparatus:—A flask with a partition in the middle provided with a cork through which passes a bent tube to hold calcium chloride.

Pipette, dilute hydrochloric acid.

XXII

Manipulation:—Fill the tube and the bulb with calcium chloride. Pour by means of the pipette hydrochloric acid (dilute) into one of the compartments in the flask. Fit the cork to the flask. Take down the weight of the flask.

Then take out the cork, gently put by means of glazed paper about a gram of chalk (powdered) into the other compartment of the flask. Note the weight of the flask again. Tilt the flask so that the acid may fall on the chalk. Do so till all the chalk is acted upon by the acid. Take out the cork, blow in air by means of foot-bellows into the flask to drive out carbonic acid gas in the flask. Replace the cork and take down the weight of the flask.

Weight of the flask with the acid = 70.37 gms.

Weight of the flask with the acid and chalk = 71.66 gms.

∴ Weight of chalk taken = 1.29 gms.

Weight of the flask after expt. = 71.11 gms.

∴ Loss of weight due to the escape of carbon dioxide } = .55 gm.

∴ 1.29 gms. of chalk contains .55 gms. of carbon dioxide.

∴ 100 gms. of chalk contains 42.6 gms. of carbon dioxide.

Chalk contains 42.6 per cent. by weight of carbon dioxide.

K. H. V. S. NARAYANA.

RURAL EDUCATION IN JAPAN.

POPULAR ENTHUSIASM FOR THE INSTRUCTION.

Mr. J. W. Robertson Scott writes in the "Times Japanese Supplement":—

When with the outbreak of war, the movements for rural reform came to an end, and I looked round for some piece of constructive work which might be of service when we were once more at peace, it occurred to me, as it had occurred to me before when going through the library of the International Institute of Agriculture in Rome, that we know too little of the agricultural life and agricultural systems of the Far East. There is, indeed, no English book on the subject. Feeling that some stimulus for rural reformers might be got from the extraordinary development of agriculture in Japan, realizing also that for an adequate knowledge of Japan, which is increasingly important, it is necessary to begin with a study of the rural basis—seeing that more than half the population is on the land, and believing, further, that it was highly advantageous for a rural student to see home problems in a world perspective, I decided to get to work in Japan, and after making in a close investigation there to go on to China, and then to the United States. I have now journeyed the whole length of Japan and four times across it, and have made the acquaintance of almost every conspicuous agricultural authority.

RURAL AND URBAN JAPAN.

Now that, before my task is finished, I am asked for my impressions, I must say that the view of the situation I formed at home proves to be perfectly sound. Although the writers of scores of books have failed to realize the fact, to try to study Japan without beginning with its rural foundation is a hopeless proceeding. The capital of more than two million people and all the other cities are something which Japan carries on it back. It cannot get rid of them, has no wish to get rid of them, for it lives in symbiosis with

them. But rural and urban Japan are nevertheless separate entities, and until the visitor arrests his rapid progress from the foreign hotels of Tokyo and Kyoto to the foreign hotels of Nikko and Nara, Miyajima, Miyanoshita, and Matsushima, and determines at considerable sacrifice of personal comfort to see something of rural Japan, in contradistinction with urban and merely scenic Japan, he must take away a partial view of the Japanese national organization and national strength, and perhaps of the national character.

Motors are now driven almost everywhere. But rural investigations must be largely made by kuruma (jinriksha), though the best method of all is, of course, by walking. The kuruma was built, however, for folk with shorter backs and legs than a six-foot foreigner possesses, and rubber tires do not save him from weariness. I have done 200 mile tours by kuruma in the wilds and know how tired it is possible to get. But the really hot-bath and the painstaking rub down which are available in the evening everywhere, always make it possible to take a cheerful view of the next day's 30 miles or so. The traveller in Japan who has experienced the extraordinary kindness of the staff of a country hotel reads a fuller meaning into the words of the poet who "found his warmest welcome at an inn."

A VARIED EXPERIENCE.

I have had the good fortune several times to be in places where no Briton, and sometimes, I was assured, were no foreigner had been before. I have even seen old countrymen go down on their knees before their doors as they used to do in the old days when a daimyo passed. I have been peculiarly fortunate in seeing something of the homes and family life of landowners in remote districts. I have drunk green tea, at the rate sometimes of a score of cups a day, in the houses of every grade of farmer, and have also discussed rural problems as I sat in the big baths at hot springs with agricultural folk of three generations and both sexes. I have cross-examined

almost every species of agricultural expert in a land where there are many species, and have interviewed innumerable village headmen, chiefs of county councils, and governors of prefectures. Sometimes His Excellency has been in the European clothes of his bureau, sometimes in full uniform, sometimes in kimono, haori, and hakama. Once interviewer and interviewed were both in bath kimono. On another occasion we sat at our ease in the bath. Projects of rural reform have been expounded to me by a rural millionaire and by a rural St. Francis, by a rural reformer of much benevolence, who wore a cloth cap, a frock coat, a red tie, a white waistcoat, flannel trousers, and brown shoes, by an ex-daimyo who proclaimed himself a Confucian, and by police officials who had hearts above the lock-up.

I have planted enough ceremonial trees to keep me in fruit for the rest of my life if I could only remember where they are growing. I have spoken at serious parades of young men's associations insatiable for good advice. I have slept the night in a Buddhist temple, and, to gratify a kindly priest, who was a sort of village Sir Horace Plunkett, I have delivered an address at dawn, from within the altar rails, to the group of kneeling peasants who gathered daily at a very early morning service. I have clapped my hands and made my obeisance at Shinto shrines and heard the prayer of the chief ritualist that "Dr. Robertson Scott be protected night and day," for "he goes everywhere in this country, crosses some hundred rivers, and passes over many hills—may there be no stumbling of his horse, no foundering of his boat."

WONDERFUL AGRICULTURE.

There can be no doubt as to one's early outstanding impressions. The agriculture of these weedless farms seems wonderful, even when one has seen the best that Denmark, Holland, and Belgium can do. Yet every year it is getting better. Improved varieties of seed, better culti-

vation, and science reinforcing vast experience and immense industry are producing bigger and better crops. The efforts which are being put forth to improve agricultural and rural conditions are great and unremitting. There are whole legions of experts, official and un-official, at work. There are village agricultural associations and there is co-operation. There are county and prefectural agricultural schools and experimental stations, higher agricultural schools and national agricultural colleges with their experiment stations, all of which have reached a degree of efficiency which is as surprising as it is honourable. We have simply nothing which rivals in the extent of their rural influence, some of these big teaching establishments, crowded with farmers' sons who are going to remain on the land, and are now getting excellent technical instruction for an infinitesimal sum, an unsparing training in physical fitness, a forceful experience of simple living, and all sorts of high ethical and national ideals. I have not been in more stimulating institutions since I visited the Danish rural high schools.

WORK OF THE SCHOOLS.

But why is such a high level of instruction for the rural population possible? Because it is soundly based on the foundation of good village schools. There are various directions in which the elementary school instruction can be improved, but the fact remains that the largest and most conspicuous building in every village is the school, that it is maintained at the cost of great local sacrifices, and that the devotion of the teachers is something remarkable. When I think of the way in which rural England still harbours small under-staffed school-houses, and how little pains are taken in many places to stimulate rural patriotism, I take off my hat to rural Japan.

The Young Men's Association which is to be found in every village in Japan may not always be doing anything very original, or particularly vigorous, but how often one finds it fired with an

ingenuous earnestness which sets no bounds to its efforts to promote the welfare of the district! Sometimes it is setting its members to make a road or to plant trees or to reclaim a bit of hill-side. Sometimes it has a partiality for lectures, sometimes it is keen on wrestling, judo, and fencing, or on making money by night work at straw rope or matting making. Sometimes it teaches frugality by getting its members to cut each other's hair. Sometimes it is an Early Rising Society which gets its members up at an unearthly hour and parades them before work for half an hour's drill before the local shrine. But whatever is being done is always in the direction of self-discipline, and the results are plain for anyone to see. One must attach great importance to the work of all kinds of schools and of the Y.M.A.'s, for religion is as yet hardly enlisted in the work of rural amelioration.

EXHIBITIONS AND INVESTIGATIONS.

One is struck by the number of public officials and private individuals who seem genuinely devoted to the cause of rural progress. In few countries are more studies made of agricultural conditions and rural life. A prefectural Rural Life Exhibition which I attended was a show the like of which we have never had in Great Britain. There were hundreds of skilfully executed diagrams and posters vividly illustrating the actual condition of particular villages or districts, or the progress of certain crops, or certain forms of rural organization. There were also scores of beautifully written MS. volumes of local studies of rural sociology. The performances of some elementary school teachers in this line were notable. Several ingenious exhibits in the form of models were also to be seen. I particularly remember a model of an improved rice field irrigation system, and demonstrations by means of diminutive rice bales and so forth of the progress of certain districts within recent years. There are few countries in the world where more unselfish thought is

being given to the task of increasing the crops and improving the education and general condition of the rural population.

It may be that some of this work is still in need of co-ordination. For example, it is very difficult to determine with any degree of certainty the precise financial condition of the farmers, though some painstaking investigations have been or are being made in every prefecture, and national investigations, official, semi-official, and private are also on foot. I was lately asked to procure as full information as possible as to the methods of investigation on which our own party land campaigns were based. I am struck by the close eye which is kept on the agricultural literature of Europe and America.

TECHNICAL INSTRUCTION.

Very few visitors to Japan grasp to what degree silk, tea, and rice exportation has been stimulated by technical instruction and organization for which the best foreign experience has been drawn on. The equipment of the great Sericultural Institute at Ueda in the prefecture of Nagano, which has not only its agricultural, but its manufacturing and research sides, is a revelation. The readiness with which young professors or half-flagged experts are sent to the ends of the earth to study is most praiseworthy. On the subject of rice-growing, for instance, Japanese authorities know not only all the East knows, but all that is known in the rice tracts of Italy and Texas. No more is thought of going to Europe or America than many Londoners think of a trip to Edinburgh or Dublin. The sharpest impression I ever got of the agriculture of Argentine was from a Japanese professor. A young professor of agricultural politics was taking stock of things in the Marshall Islands almost as soon as the German flag was down. As to the study of languages which all this travelling involves, I need only remind the reader that the Japanese ideographs—even the books of the elementary schools contain as many as 1,300

—practically involve a loss of two years' schooling, and that a European language must, of course, be learnt wholly by rote, for there is nothing in it which resembles any Japanese word. Yet I have met men who can express themselves in French, German, and English.

Rural Japan has need of all the intelligent organization and self-discipline it can develop, for every year urban Japan makes a heavier drain on its vitality. There is industrialism, with great cotton, silk, and other factories, over the hours and dormitories of which the factory legislation of some years ago is in no more control than it is over the small workshops which flourish everywhere. There is a cheap press, perhaps the cheapest in the world, the contents of which do not always make for righteousness. There is the bicycle and the cinema, and there is the universal service which shows the country lads all the glories of the world. And the farmer, who was once able to provide for his household largely from the labours of his family on the land and in his house, has now to pay cash for a very large proportion indeed of his requirements and at still steadily rising prices.

SELF-SACRIFICE.

That there is enormous staying power in rural Japan can no more be doubted than that determined attempts will be made to grapple with the difficulties of its situation. Many men of talent are devoting their best brains to the problems of rural life. And many men of means are ready to dip freely into their purses. There is also a considerable stock of self-sacrifice to draw upon. In the very week in which I write the son of a former daimyo, who is a viscount, told me—in idiomatic English—that when he graduates at the Agricultural College of the Imperial University next year he is going to buy 30 acres of pine-covered upland and bring it into cultivation as an object-lesson to the local villagers. He will have a certain amount of paddy land, and he will himself plough its slash in preparation

for his rice crop. Meantime he has half a dozen odd corners of his father's garden under barley, vegetables, and salads with never a weed showing, and manages his compost shed and his liquid manure tank with infinite enthusiasm. It is the spirit, the fitness, the education and the social ideals of this charming young fellow, and of many another like him with whom I have had the pleasure of talking, that helps to inspire me with hope for the future of Japan.

EDUCATION OF WOMEN.

The Government of India have addressed a letter to Provincial Governments on the expansion and improvement of female education. This circular letter is the outcome of a deputation headed by Mrs. Fawcett, which waited upon His Majesty's Secretary of State for India; and a similar representation was made to the Viceroy by the Mahila Parishad of Bombay. Public opinion is now invited on the question of female education. It is, now, a good opportunity for us to state what we want for our girls' education. For the old order of things is changing yielding place to new. The immediate need of female education in this country was justly emphasised by the Education Member of the Viceroy's Council in his despatch. Everybody agrees with him that the old institution of joint family is relaxing and its virtues are diminishing. Young and inexperienced couples are now left alone to fight the battle of existence. And in this struggle of life, it is very urgent for the soldier to be fully equipped for the strife.

The education of women in India is fast gaining ground although it is true that it has not yet met with support to the extent it deserves. Of late it has become, for many reasons, the most important topic of discussion in Indian society, requiring immediate reform and encouragement. The whole social structure of our society is being rapidly revolutionized. The old prejudices and objections about the education of girls are practically disappearing,

Now the people are not indifferent to the need of female education, but they are vigorously active in its support. It is a sad irony of fate that in spite of being very important and urgent, female education has not received liberal support from our civilized and benign Government. In spite of more than a century of the British Government in India our sisters and mothers are still in the fathomless depth of ignorance. We, in these provinces, have to lament the backwardness of female education in comparison to the sister provinces. This statement becomes clear from the following figures:—

In 1913-14 the percentage of female scholars in public institutions to female population of school-age, was as:—

Burma	...	10.9	per cent.
Madras	...	8.2	"
Bombay	...	8.0	"
Bengal	...	7.1	"
Bihar and Orissa	...	3.7	"
Punjab	...	3.4	"
C. P.	...	3.1	"
N.-W. F. P.	...	1.7	"
U. P.	...	1.2	"

Our percentage is less than that of the North-West Frontier Province! Why are we in such a state? The education of females in our society does not possess any market value. Our social customs do not allow that our sisters and mothers may sit in an office and earn their livelihood. Hence the education of females is a matter of philanthropy and good-will on the part of parents. On the other hand we are in such a state of abject poverty that we cannot afford to spend much money on their education. Therefore it should be the concern of the State to look after their education. How are we helped in this direction? The Department of Education, at least in these provinces, allows grants-in-aid to girls' schools on the condition that half the fund should be provided by the promoters of the institution. In addition to this, the departmental rules are sometimes so strictly enforced even in granting such aid to private girls' schools that it makes it difficult for the promoters

to accept Government help. On the other hand Government lavishes a large sum of money on 'indirect expenses.' European Inspectresses and Chief Inspectresses are appointed on fat salaries to direct the education of our sisters. European ladies to direct the education of Indian ladies in their own vernacular! How strange and foolish it would look, if some Indian ladies were appointed in some European countries to look after the education of the women of those countries in their vernaculars! As usual in India everything is topsy-turvy. For we are always reminded of the well-known maxim of our Anglo-Indian friends that Indians do not know that which is for their own benefit; and for this reason their opinions do not possess any value.

From the Government report itself it is clear that the state of female education in U. P. is far behind that of other provinces. The Madras Government maintains a college for women at its own expense. To some secondary schools in that province hostels for Brahman widows are attached and widows are given scholarships. But in U. P. there is not a single secondary school which is exclusively maintained by the Government.

Now the most important question before the public is, what should be the programme of female education. Should we have the same excessive craving for 'efficiency' in female education also?

The method of educating girls should be quite different from that of educating boys. Their curriculum should be framed in such a way as to give them useful instruction in a short time. In our society a boy can prosecute his study in a school as long as the boy or his parents wish, but the case of a girl is just the opposite. She cannot attend school beyond a certain age. Her years at school are very limited and short. Their school age is at the most five or six years. Very few parents allow their daughters to read in a public school up to the age of 13 or 14 years. Thus the curriculum for girls' education should be such as to give them only useful instruction within this short period, and turn them out as useful and good

members of society. Besides the knowledge of the three R's, they require acquaintance with a good many other subjects. They require instruction in music, hygiene, tailoring, nursing and cookery. Music should be the chief item of girls' education. In our Hindu society every woman is supposed to sing. In the absence of better training in music they indulge in filthy songs. Training in music is very essential in the case of a Hindu family. In U. P. the cultivation of this art has been neglected very much in the training of boys as well as of girls. In this connection it is interesting to note what our great leader Lala Lajpat Rai says in the *Modern Review* of this month:

'They (Indian students in America) have no ear for music; nor an eye for a picture or painting. The Bengalees and the Mahrattas, thanks to their family influences, are better in this respect than the Panjabees or U. P. men. Ask a Northern Indian to entertain an audience and it is a sight to see him making excuses.'

'He cannot sing, he cannot play; he cannot recite; he cannot even tell a story. Take him to a concert or an exhibition of fine arts and he feels as if he is in a prison. He cannot appreciate nor enjoy nor admire. In his lonely hours he does not know how to relieve the monotony of his solitude by humming a tune. The only thing he can do is to prattle of the past greatness of India without even knowing what that greatness consisted in, or sometimes to sneer at it.'

Lala Lajpat Rai is quite right in his remarks about the students of U. P. What is the cause of this? It is that they have no home influence in this respect. In their home the culture of music is most neglected. This is why the young and receptive mind has no ear or tune for music. It is an art which can be cultivated by appreciating it not by shunning it. It is strange why the Allahabad District Board has shown its displeasure at it. It decided at a recent meeting that music should not be included in the curriculum of girls' education. But music will survive the wrath of the local District Board. It has a majority of

Mahomedan members and they as a rule are against giving training to girls in music. To some Mahomedans it is a sin to hear the sound of music. This is the real difficulty as regards the introduction of music where the Mahomedan and Hindū girls meet together. This fact alone makes it plain that mixed education of Hindus and Mahomedans is impossible in the present state of Indian society.

There should be special books for girls. The present policy of the Education Department is only that the books should contain stories of cats and dogs and descriptions about trees and lakes, etc. There are at present text-books for boys in the vernacular schools which contain biblical stories of Joseph and his brother but no story of Harischandra or Rama. Now it is the policy of the department to select such books as contain no direct or indirect quotations from Indians' contribution to the world's literature. There is a talk in some quarters that the Department of Education of these provinces has monopolised the publication of text-books of schools for this purpose. Our students know more of Shakespeare and Milton than of Kalidas and Tulsidas. It is instructive to read what Lala Lajpat Rai says on this point.

'Asked to recite some poetry,' he writes in the *Modern Review* 'he may be able to repeat a few verses of Tennyson or Shakespeare in humble accent. But as to Punjabee or Urdu poetry or Sanskrit or Hindi poetry, he never considered himself so foolish as to waste time on it. The folklore of his country he has never heard of. Sometimes he meets foreign gentlemen and ladies who know of his country's folklore or mythology better than himself, and then his humiliation or discomfiture knows no bounds.'

Therefore it is a good opportunity for us to impress on the authorities that we do not want such text-books for our girls. It is said that woman is nature's supreme organ of the future. Anything which is necessary for an improvement in the social and intellectual environment

should be taught to women. The mother's influence is greater on the child's future advancement than anything else in this world. The destiny of a nation is always in the hands of women. No reform is possible without their aid. Therefore their education is the most important factor in this respect.

There is a tendency in some quarters to emphasize that English education should also be imparted to girls. This is a highly controversial point. Some people are against the teaching of English to girls on the ground that it will raise the standard of living and the life of middle-class people will become unbearable. This argument is perfectly sound. Undoubtedly English education in the case of women, will, for the time, change the whole system of our society. But this change will be for the better. In this connection people point out the case of the Brahmos of Bengal. The Brahmos of the twentieth century are quite different from those of the nineteenth century. Now they are Swadeshi from top to toe. Their alien sentiments are gone. On the other hand a certain amount of social revolution is very necessary in a society where lethargy, stagnation and superstition have their sway. It is not necessary that higher English education be given to girls, but a fair grounding in English at the present time is most urgent and needful. I would suggest the following points in connection with female education :—

- (a) Liberal aid should be granted to private institutions for the opening of training classes.
- (b) The selection of text-books should as far as possible, be left in the hands of the school committee.
- (c) Co-education is not desirable even in the lowest standard.
- (d) Elementary education in English should be given to girls.
- (e) Music, hygiene, knitting, needle-work and cookery should be compulsory subjects.

(f) Widows' classes with hostels should be attached to selected schools, such as Arya Kanya Pathshala, Allahabad, Kanya Pathshala, Debra-Dun, and the Central Hindu girls' school, Benares, with Government money.

(g) Inspecting work should be entrusted to the hands of capable Indian ladies.

(h). The system of examination by compartments should be adopted.

(i) There should not be too many compulsory subjects.

In conclusion the education of women should be such as to prepare them for perfect living. 'Education' says Herbert Spencer, 'is the provision of an environment the function of which is to prepare for complete living.'—VAIDYA in *'The Leader,'* d/19-7-16.

UNIVERSITY EDUCATION IN INDIA.

By MR. SARADA CHARAN MITRA, M.A., B.L.

Ex-Judge, High Court, Calcutta.

My views about the ways and means of culture and higher education of our young men are so radically different from current views that I feel diffident in giving expression to them. Not that, I feel that I may be wrong or that I have doubts but I am apprehensive that I may be supposed to have softness of brain on account of age, instead of maturity by long experience. However I think I would err in the right side if I am bold enough to record my views for the consideration of the public and the Press.

It would be admitted by many that the present system of University education, more accurately examinations, has failed to achieve its object, except turning out a number of young men for filling up or over-filling the learned professions and a superfluous number of candidates for public service. The main incentive for collegiate study is not now culture or deep learning but diplomas

for service and professions. Discipline, and true culture are farthest from the sight of most of our young men. Discipline and self-control and respect for teachers are replaced by ideas of license erroneously thought to be liberty and freedom. Cramming is the means of passing through a number of successive examinations beginning with the Matriculation one following another successively after each two years. The London University system is the model which, however, I think has been sufficiently shown to be unsuitable to India. We require a system suitable to the genius of Indian youths, Indian ideas and traditions.

In one matter, however, I am in harmony with most of my friends—I mean the medium of instruction. The medium must be the vernacular of each province or State. Mysore must have the Canarese. English is a very difficult language to master and unnecessarily a long time is wasted in its study, in mastering its idioms and idiosyncracies. We see that even long study and practice are insufficient to make us write or speak as Englishmen. The Scotch has his idioms, so the Australians and Yankees. Why not make English a second language like Sanskrit or Arabic? Vernaculars, — mother tongues, — are easy of learning and writing in and much time would be saved by the adoption of them as medium. We may adopt the same scientific terms as Europe has, if there are no current Indian equivalents. Scientific terms are for the world and not for any particular country. However, I need not labour on this point much further at present, as there is a practical unanimity of opinion. It is undeniable that the Vernacular or Vernaculars of each province in British India and each Native State should be medium of lectures. Professors coming from foreign countries may feel difficulty in learning Indian dialects and imparting lessons through their mediums, but they may with a little industry acquire a competent knowledge of vernaculars. If they cannot do so, they should be considered as unfit to hold the responsible posts of professors. They must learn to speak in our dialects.

In my opinion the standard of Matriculation Examination, entitling a student to receive collegiate

training, should be sufficiently high. The Matriculation Examination should be the test for entering college life and not Government service as clerks. Service Examination should be different from Matriculation Examination. The syllabus for Matriculation Examination should be—

(a) Complete knowledge of the vernacular dialect with facility in composition.

(b) Knowledge of Sanskrit or Persian language and literature.

(c) Knowledge of English as a compulsory second language, just sufficient to understand the meanings of technical words and expressions.

(d) Histories of India, England, France, Greece and Rome.

(e) Geography.

(f) Arithmetic, Algebra and Geometry; and

(g) Elementary Physics and Chemistry.

The standard of the London University Matriculation Examination may be the type.

No student should be allowed to appear for Matriculation Examination before he has completed the age of sixteen, except in cases certified by the Headmaster of the High School in which the student was studying for at least three years and two other teachers that the student is fit notwithstanding that he is below the age of sixteen.

There should be no division into classes of result at the Matriculation Examination, no candidate having passed unless he secures at least one half of the full marks.

After a student passes the Matriculation Examination, he should select his subject of study in collegiate life and devote himself to it for at least five years without any intermediate examinations. The bifurcation should be complete; there should be no plurality of subjects.

If the student selects Sanskrit he should select its particular branch—(a) Literature and Grammar including Philology, (b) Philosophy, (c) Vedas and Upanishads, etc.

He may select (a) History, (b) Philosophy, (c) English, (d) Physics, (e) Chemistry, or any other Science, (f) Mathematics, etc.

Each subject should be taught by one professor assisted if necessary by an assistant professor. The quarters of the professor and his assistant, if any, should be in one full apartment, where his or their students would also reside. The type should be the ancient Indian system of education under a great master. The students should be made to lead so far as possible ascetic life—Brahmachariya, be hardy, self-reliant and with reverence to the professors. Plurality of subjects with plurality of professors are not conducive to discipline and *Gurubhakti*.

After the course is completed in any one subject, the professor should certify to fitness for final collegiate examination. The student should be examined as to knowledge, all means of passing examination by cramming being avoided, and if found fit, he should be titled which would connote the mastery of his subject.

As for professional education, where the subjects of examination must be many, such as Law, Medicine, and Engineering, the system in vogue must of necessity be followed.

The above is an abstract of my thoughts on University Education. If my ideas find any favour I may dilate on them.—*The Mysore Economic Journal*.

சாணக்ய சாகவலம்

அல்லது

சந்திரகுப்த சரித்திரம்.

ஸ்ரீமதி வி. பாலம்மாள் அவர்களால் இயற்றப் பட்டது. விலை ரூ 1, தபால்சார்ஜ் பிரத்தியேகம். வேண்டுவோர் பின்வரும் விலாசத்துக்கு எழுதி பெற்றுக்கொள்ளலாம்.

ஸ்ரீமதி வி. பாலம்மாள்,
“விடுவனோதயம்” பத்திரகாசிரியர்,
திருவள்ளூர், மதுரை.

UNIVERSITY OF MADRAS.

SPECIAL REPORT ON THE FAILURES IN THE INTERMEDIATE EXAMINATION.

The Syndicate presents to the Senate the following Special Report on the failures in the recent Intermediate Examination and related matters:—

It may be assumed that the agitation that has arisen in connection with the recent Intermediate Examination is meant to express dissatisfaction with the way the examination has been conducted rather than a wish to lower the standard of attainment of those who receive University degrees. As the Hon'ble Mr. Justice Seshagiri Aiyar said in his Memorandum of August 23, 1914, 'The giving up of the Matriculation Examination and the substitution of the test as recorded in the School-leaving Certificate cannot mean that the standard of proficiency the entrants of the University course should show in English or special subjects has been lowered. If we aim at steady progress in education there must be a gradual rise in the standard of attainments of those who want to matriculate or of those who would enter on the University studies.' The Syndicate believes that the increasingly large number of failures in the Intermediate Examination during the last few years has been mainly due to the neglect of this wholesome doctrine since the Secondary School-leaving Certificate was accepted as a passport to University studies. The popular view was clearly if somewhat naively expressed in a letter to one of the Madras newspapers in which the writer thanked 'our beneficent Government' for having removed the Matriculation Examination barrier and expressed the hope that the Intermediate Examination barrier might soon follow. The present proposal that the Senate should increase the number of candidates passed by the examiners by more than 100 per cent. would, if adopted, go a long way towards giving effect to this wish.

It should be borne in mind that the pass in the Intermediate Examination this year is absolutely the largest on record, the number of successful

candidates being 1,241. (See Appendix A). The largest number of candidates that ever passed the First Examination in Arts was 1,087 (in 1907-8), and the record till this year for the Intermediate was 1,159. At the same time it is true that this year there is also the largest number of failures on record. This, of course, is due to the fact that the number of candidates was more than three times as large as it was in 1911-12 and double the number that ever appeared for the First Examination in Arts except during the last three years of the existence of that examination. In other words while the numbers that used to appear for the First Examination in Arts were somewhere between 2,000 and 2,500, and while under the New Regulations, before the Matriculation was practically abolished, the highest number of candidates was 1,575, the number that appeared this year was 4,717.

The mere fact that the number of candidates who appeared for this year's Intermediate Examination exceeded the number that appeared five years ago by more than 3,000, and exceeded the largest number that ever appeared for the F.A. Examination by over 2,000, is sufficient in itself to suggest that a very large number of unfit candidates have been admitted into the colleges and have been allowed to appear for the Intermediate Examination.

It is true that, if there had been a great expansion in secondary education and a great multiplication of schools and scholars, a certain increase in the numbers coming into the colleges would be natural and would not imply any lowering of the quality of the under-graduates, though even in that case such a sudden and such a large increase would be suspicious. When, however, the school statistics are examined, it is found that, instead of the numbers in high schools having increased, they decreased at the same time that the First Year University college classes were flooded with students. (See Appendix B.) The largest number in the sixth form between 1906 and 1915 was

in 1909-10 when the number of pupils was 9,560. In 1911-12 it dropped to 7,409. Only in the year 1915-16 has the number at last risen again to the former strength (9,598), and it is to be feared from what the Secondary School-leaving Certificate examiners find that the restored conditions are merely due to the depleted sixth forms having in too many cases been filled up with boys who are quite unfit for that class. It is believed by many that the rapid passing out of school of half educated boys has lowered the general standard of attainment in the Presidency, and has to a great extent counteracted the improvements which in many cases have been made both in the staffs and the equipment of the affiliated colleges. This may be the case even when care is taken in making admissions to colleges. Selection is generally made on a basis of 'Presidency averages' and a deterioration, such as has been referred to, in the quality of the material sent out from the schools can only result in a depreciation of these 'averages.'

There is further no reason to believe that University examiners this year have failed to discriminate between the fit and the unfit Intermediate candidates to the prejudice of the former; certainly no evidence has been produced in support of such a contention; and in the absence of such evidence, the Senate must assume that the rejected candidates, however large their number, actually are unqualified to proceed immediately to the Degree courses.

In these discussions the existence of the Special Moderating Board seems not infrequently to be entirely lost sight of. It is therefore perhaps not superfluous to point out that, over and above measures taken by individual Boards of Examiners to give candidates the benefit of every possible doubt, the Moderating Board has this year, as formerly, so applied the principle of 'set off' that no candidate has been allowed to fail for want of a few marks in a single subject and in the case of many candidates serious deficiencies

in single subjects have been disregarded in consideration of fairly good work in other subjects and on the whole. It is perhaps worth mentioning that candidates who may be considered 'good' on the whole, *viz.*, candidates who obtain fifty per cent. of the total marks are invariably passed, however poor their performance in particular subjects.

In these circumstances, a proposal to pass a large number of candidates, rejected by the Examiners for deficiency in single subjects and rejected again by the Moderators for deficiency on the whole, amounts in effect, though this can scarcely be Mr. Justice Seshagiri Aiyar's intention, to a proposal to lower for *this year only* the standard of the Intermediate Examination. What are likely to be the immediate and ultimate results of the acceptance of such a proposal? If, for instance, the proposition of the Hon'ble Mr. Justice Seshagiri Aiyar be carried, the first consequence will be that a much larger number of students will be permitted to go on to the B.A. Degree Course than the existing first grade colleges can adequately provide for. That is perhaps a rather serious practical objection. Secondly matters will be so ordained that the least qualified of these students, the students who obviously stand most in need of instruction and guidance, will be unable to begin work until the students already qualified have advanced a considerable distance in their various courses. The colleges will then have to reckon with an unpleasant dilemma. They must either sacrifice the interests of students declared fit by the Intermediate Examiners, or leave the candidates passed by the Senate to 'make up' as best they may. But, of course, these candidates, unfit as they are to enter on the Degree Course at all, will not be able to make up for the time they have lost, and inevitable result will be an enormous failure list in the B.A. Degree Examination two years hence. This will almost certainly lead to another popular outcry, and the Senate will

again be called upon to issue a supplementary Pass list, which, if issued, will merely lower the standard of the Degree Examination, and beyond question depreciate the value of the Degree.¹

The Senate may be invited to think several times before deciding to take action which can only result in lowering standards. If, as is often said, Madras University standards are in various ways higher than the standards of other Indian Universities (which may or may not be true), the fact, if true, is to the advantage of the Presidency as a whole. It is an asset which should not lightly be surrendered. Beyond doubt the superior value of the Degree is very distinctly to the advantage of those who hold it. Is it either politic or just to lessen the value of a distinction honestly earned by many in order to give others on easy terms an article of inferior value?

Of course if it could be proved that Madras standards are so high that only a few exceptionally gifted students can satisfy them, then there would be a clear case for altering the standards, not indeed after the fashion now proposed, but by a somewhat drastic revision of the courses. But not such case has been made out; a yearly increasing number of young men have been able to satisfy the standards; and if also an increasing number have failed, reasons which to many are incontrovertible have been put forward in explanation of the failure. Meantime judges who ought to be competent—Professors and Examiners—are convinced that the standards are not unduly high, and maintain that, but for the disastrous abandonment of the qualifying Matriculation test, the rightness of the standards would not have been questioned—at any rate in the Senate.

The only ground now urged for demanding a lowering of standard in the Intermediate Examination and a setting aside of the verdict of

¹ There is no reason why this process should stop at the B.A. Examination and not go on to the B.L. and other professional examinations.

the University's Examiners, is the low percentage of passes. But a low percentage of passes in an examination is in itself no proof of unduly high standards. One has first to know the conditions under which candidates are admitted to the examination. Similarly a gradually decreasing percentage of success is in itself no proof of a gradual raising of standard. One has to know whether the really determining factors have been constant. A lowered percentage of success may indeed very well coincide with a lowered standard—and this, at least in some subjects is not improbably the case at present. In the Intermediate Examination of 1911, for example, the percentage of success in English was 56.7; the next year it was 61; in the present year it has fallen to 34.1. All the factors but one are identical. The course and examination are the same, the standard of the question papers and the principles adopted in valuation are the same, but whereas the 1,427 candidates who appeared in 1911 and the 1,575 candidates who appeared in 1912 had previously satisfied the Matriculation test, the 4,798 candidates who appeared in 1916 had been admitted to colleges at the discretion of Principals.

It is the contention of the Syndicate that it is just here that the really determining factor is to be found. The colleges have nearly trebled their numerical strength, and from half to two-thirds of the students are unfit. The University has been blamed for the admission of these unfit students, and it must frankly be admitted that the acceptance of the Secondary School-leaving Certificate Scheme by the University has had disastrous results. The scheme in itself was an excellent one, but it has broken down so far as the University is concerned, owing to the way in which advantage has been taken of the liberty given to colleges. The Syndicate early saw that this was happening and as far back as the autumn of 1911 began to take steps to try to check the evils which it was clear were coming,

The School-leaving Certificates of the students who had been admitted to the colleges were inspected, and it was clearly established that a large number of those who had been admitted were quite unfit. The Syndicate remonstrated with the Principals of the Colleges which seemed to have been most lax, and sent recommendations to all the colleges as to the principles of admission. These recommendations and warnings were to a great extent disregarded and at last in March, 1914, the Syndicate asked the Senate to empower it to decide which Principals should have and which should not have the unrestricted power of making admissions. This was objected to and a Committee was appointed to consider the matter. According to the Report 'The Committee was agreed that a very large number of unsuitable students were being admitted to the Intermediate Courses of study' and pointed out how this had a prejudicial effect upon 'the other students in the college classes, the progress of which must necessarily be seriously retarded by the presence of students unable properly to benefit by the instruction afforded.' The Committee recommended, and the Senate in October, 1914, accepted the proposal, that the absolute discretionary power in the matter of admission enjoyed by the Principals of Colleges should be taken away and that the Syndicate should be asked to lay down definite rules and directions for admission. The Syndicate issued a tentative scheme in 1915 and as it was found not to be satisfactory a new set of rules has been introduced this year, and now those students alone whose names find a place in the list drawn up by the Committee of the Syndicate appointed for the purpose are eligible for admission to colleges. The standard taken is still very low, but it may be hoped that to a considerable extent the abuses that have crept in will be checked, and that in future the Intermediate Examination will not be burdened with a large number of absolutely unfit candi-

dates who could never have passed the Matriculation Examination and who have been benefited little by the years they have spent in college.

In Appendix C will be found a table showing the strength of the first year class in thirty-eight colleges in the academic years 1909 to 1915-16. In the year 1911 students were first admitted to colleges at the discretion of Principals, and in that year the strength of the first year class in all the colleges taken together was more than double the strength of the previous year, and in 1913 the figures show a three-fold increase. In many colleges, of course, the rate of progression is much more rapid.

It has been shown that there has been no corresponding increase in the number of pupils in Secondary Schools to account for the swollen classes in the colleges, and that consequently the phenomenon can be explained only on the hypothesis of a very large admission of unfit candidates. That those who were unfit on admission fail in the Intermediate Examination should occasion no surprise; but it has also to be borne in mind that, as was pointed out by the Senate's Committee of 1914, the admission of the unfit students is also indirectly responsible for the failure of many candidates who when admitted to colleges were potentially qualified. It is necessary to ask, in this connection, whether colleges which have doubled and trebled their strength in recent years were so well provided in the matter of staff, accommodation and equipment as, with due regard to efficiency, to allow of so great an increase in the number of the students admitted. If they were, then before the influx they must have revelled in a superfluity of efficiency which strangely escaped the notice of University Inspection Commissions. But if they were not at first adequately provided in these respects, and if the deficiency has not been made good since, then, even were all the students properly qualified, the absence of any true proportion between the number of students on the

one hand and the strength of the staff and the adequacy of equipment on the other, a serious deterioration in methods of teaching and study is almost inevitable. When the majority of the students are unfit, conditions become, of course, much worse. Nothing can be done for the majority by employing intelligent methods, though something can be attempted in the shape of cram. But cram can really do little for the originally unfit, while it is disastrous to the originally fit.

College.	Sent up.	Passed.	Percentage.
4	111	21	18.9
8	140	18	12.9
11	119	18	15.1
14	85	14	16.5
21	70	12	17.1
24	118	9	7.6
31	97	18	18.6
32	106	17	16.0
36	237	37	15.6
38	188	24	12.8

Conclusions which can readily be drawn from Appendices A and C taken together are confirmed by the reports submitted by Examiners (see Appendix D) which testify to the unfitness of the majority of the candidates and which also point to evidence of unsatisfactory teaching and methods of study furnished by the answer papers of many even of the better candidates.

As the fairness of the examination in English has been in some quarters called in question, and as undoubtedly 'results' in English in the last few years have been very bad, a report submitted by the Chairman of the Board of Examiners is also attached (Appendix E). It should, however, be observed that, though the percentage of passes in English is doubtless lower than the percentage in other subjects, it is not quite fair to compare

It may be noticed that the colleges which appear to have admitted most recklessly have, generally speaking, fared much the worst in the last examination. The following are instances. The college number is that of Appendix C.

a subject with four papers with a single subject, such as Mathematics, Chemistry or History, each of which has only two papers. The comparison should be between English and a complete group. Again, though the percentage in English is still the lowest, on a comparison of the failures of the present with those of the past year, while most subjects show an increased failure, the increase in the number of failures in English is found to be proportionately less than the increase in several other subjects, e.g., Composition in the Vernacular and Translation, Mathematics, Chemistry and Modern History. Moreover it has to be remembered that it is the English classes—in which all three groups are joined together—that suffer most from overcrowding and the presence of unfit students, and it is therefore in English

that the bad effects of indiscriminate admission are most to be expected.

In conclusion, it is suggested to the Senate that the true remedy for these recurring Intermediate disasters should be sought, not in lowering standards either in the manner now proposed or by the revision of a course and examination which, in the circumstances, have had no fair chance to justify themselves, but in measures of reform in quite other directions—which shall put an end to the 'admission' scandal and effect a marked improvement in methods of teaching and study in the colleges.

(By Order)

SENATE HOUSE, } FRANCIS DEWSBURY, B.A., LL.B.,
July 19, 1916. } Registrar.

APPENDIX A.

Results in the First Examination in Arts and the Intermediate Examination
from 1885-86 to 1915-16.

FIRST EXAMINATION IN ARTS.

Year.	Appeared.	Passed.	Percentage.
1885-86	1,354	456	33.7
1886-87	1,576	570	36.1
1887-88	1,745	516	29.5
1888-89	1,979	510	25.7
1889-90	2,013	359	17.8
1890-91	2,052	668	32.5
1891-92	2,016	740	36.7
1892-93	1,889	779	41.2
1893-94	2,273	714	31.4
1894-95	1,870	629	33.6
1895-96	1,897	640	33.7
1896-97	1,628	481	29.5
1897-98	1,858	659	35.4
1898-99	1,965	739	37.6
1899-00	2,045	674	32.9
1900-01	2,089	868	41.6
1901-02	1,892	730	38.6
1902-03	1,878	704	37.5
1903-04	2,333	1,067	45.7
1904-05	2,430	980	40.3
1905-06	2,236	680	30.4
1906-07	2,448	771	31.5
1907-08	2,479	1,087	43.8
1908-09	2,687	1,069	39.8
1909-10	2,610	850	32.6

INTERMEDIATE EXAMINATION.

1910-11	...	...	1,427	592	41.4
1911-12	...	...	1,575	686	43.5
1912-13	...	...	2,427	812	33.4
1913-14	...	...	2,969	1,159	39.0
1914-15	...	...	3,749	1,030	27.5
1915-16	...	...	4,717	1,241	26.3

APPENDIX B.

Number of pupils in the Non-European High School classes of Secondary Schools for

	BOYS.				GIRLS.			
	Sixth form.	Fifth form.	Fourth form.	Total.	Sixth form.	Fifth form.	Fourth form.	Total.
(a)								
1906-07	7,848	6,150	8,434	22,432	168	140	217	525
1907-08	8,828	6,237	8,653	23,518	111	99	156	366
1908-09	7,573	6,407	8,507	22,487	96	107	191	394
1909-10	9,438	6,513	8,961	24,912	122	119	196	437
1910-11	8,421	5,877	7,755	22,053	110	116	181	407
1911-12	7,304	6,350	7,878	21,532	105	131	176	412
1912-13	7,737	6,697	8,656	23,090	121	131	179	431
1913-14	7,839	7,511	9,406	24,756	123	142	206	471
1914-15	8,567	8,042	10,209	26,818	143	159	186	488
1915-16	9,472	8,708	10,879	29,059	148	136	233	517

(a) Includes the figures relating to European Schools for 1906-07 only.

APPENDIX C.

Strength of the first year class in colleges from 1909 to 1915-6.

	1909	1910	1911-2	1912-3	1913-4	1914-5	1915-6
College No. 1	4	5	42	32	41	44	54
" 2	13	14	19	22	48	54	22
" 3	17	15	132	98	88	88	6
" 4	30	18	99	97	64	107	119
" 5	36	28	74	79	152	139	120
" 6	21	11	61	46	50	56	88
" 7	75	78	101	60	79	79	118
" 8	6	4	39	38	110	84	77
" 9	34	33	75	73	97	95	82
" 10	15	25	77	92	89	89	105
" 11	51	18	55	79	145	122	115
" 12	13	8	57	84	126	152	92
" 13	28	17	32	27	32	37	30
" 14	43	23	46	71	69	119	104
" 15	10	7	47	49	78	94	82
" 16	72	23	112	82	148	148	99
" 17	11	23	34	30	37	44	47
" 18	8	8	19	22	33	46	40
" 19	13	19	33	28	35	63	62
" 20	24	8	47	33	37	44	31
" 21	11	3	45	73	68	77	84
" 22	43	21	100	71	96	117	60
" 23	10	10	35	45	56	56	49
" 24	20	39	55	75	105	126	73
" 25	64	65	70	79	101	110	128
" 26	12	16	53	62	59	61	67
" 27	72	18	85	84	106	120	86
" 28	146	167	142	159	160	152	143
" 29	96	103	213	237	281	275	258
" 30	111	112	98	104	119	95	76
" 31	47	33	73	66	93	135	119
" 32	31	26	70	132	150	141	125
" 33	61	39	61	59	106	149	133
" 34	77	54	64	81	83	84	73
" 35	59	49	264	228	254	288	270
" 36	99	77	164	199	223	236	193
" 37	105	41	82	85	88	100	171
" 38	13	27	63	43	87	94	86
Total	1,601	1,285	2,937	3,034	3,793	4,120	3,680

APPENDIX D.

EXTRACTS FROM EXAMINERS' REPORTS.*

I. EXAMINER IN ENGLISH POETRY

It is hardly necessary to offer an explanation of the failure of the candidates—a considerable number—who got less than twenty per cent. of the marks in English Poetry. None of these candidates should have been admitted to an affiliated college. The proportion of failures among the rest of the candidates does require explanation. The poor performance of these candidates is to be attributed, in my opinion, quite as much to unintelligent study of the prescribed texts as to defective knowledge of the English Language.

It is not, I think, generally realized that the questions set in the Intermediate Examination of 1911—the model followed in every subsequent examination—were of a different order of difficulty from the questions set in the First in Arts Examination. In the latter examination it was the practice to set questions which could be answered in half a dozen words, and it was not an uncommon thing for a candidate to get well over pass marks, though he could not express himself in correct English. The Intermediate questions of 1911 altered all this. Every question requires an answer of some length, and most of the questions require a discussion of some point of importance. The candidate must be able to express himself in English. He cannot rely on his memory alone. He is called upon to do a little thinking on his own account.

What are the colleges doing to prepare the student for the new demands made upon him? On this point opinion is sharply divided; Principals of Colleges declare that their students are 'carefully trained.' Other authorities assert with equal confidence that the colleges give no training at all, that the student insists on having knowledge dictated to him in a form convenient for reproduction in an examination room, and that the Professor has abandoned his proper

function and meekly complies with the demands of the student. I fear there is a considerable measure of truth in the latter opinion. The student at a very early age develops a craving for certainty in regions where certainty is unattainable, and he looks on discussion as wearisome and unprofitable. This craving for certainty is illustrated by the experience of a Professor of the Madras Christian College who was explaining to a High School class a passage from the *Lady of the Lake*. He had pointed out that two interpretations were possible, stated them, weighed them, and concluded that there was nothing to choose between them, when the class with one voice demanded, 'But which is right?' The student's early predilection for dogma becomes confirmed at college unless very vigorous efforts are made to get him out of it. If he gets a 'careful training' such as Principals speak of, it is very much against his own inclinations. In most colleges, I believe, he does not get anything that can be called a training in English, at any rate. An unsuccessful candidate of 1916 from a First Grade College who came to see me recently told me that a question such as 2 (c) in the Intermediate Poetry Paper was quite beyond him. [It asks for a discussion of two simple matters—whether Cassius says in an early scene that every man has his price, and whether Cassius himself at a later stage is represented as taking bribes.] Speaking for himself and his fellow-students, he used the very remarkable words, 'We don't know what is meant by the word discuss.' The 'teaching' in the college he came from was evidently of the dogmatic sort that the average student loves, and avoided all unprofitable debate.

* * *

What evidence is there in the answer books that the candidates have gone through any such training? There is no evidence so far as I can see that more than a small minority have any idea that there are any difficulties in the

play. The first question in this year's paper invites the candidates to say whether they agree with the commentators who believe that Shakespeare's Julius is in his dotage or with those who hold that he is a heroic figure, and to give their reasons. A very large number appear to hold that both views are correct, that Cæsar is both a heroic figure and in his dotage. A number write out a prepared answer to a totally different question—'Is Brutus the hero of the play or is Cæsar?' A great number write a thing that cannot be called an answer, for it has neither plan nor purpose, but is a mere jumble of inconsistent views. No particular conclusion was favoured by the Examiners. Full marks might have been obtained by pointing out a few important considerations. * * *

* * * All that was required was a brief discussion such as was within the capacity of a student who had heard the rival views discussed and had been trained to keep to the point.

The second question offered a choice of three subjects, one of which required that the candidate should understand the meaning of the word *tragedy*. Ninety per cent. of those who attempted this alternative entirely misunderstood it, not having learned the meaning of the word *tragedy*, and maintained that the only way to success is a thorough-going disregard of all moral rules. One of the first results of a 'careful training,' it may be remarked, is to enable the student to seize the point of a question, to know when he is ignorant, and to avoid questions which he does not understand. * * *

Another of the alternatives in question 2 has already been mentioned. It requires the discussion of two points about Cassius and can be answered by any one who understands two important scenes in the play. I append a specimen answer by a successful candidate. The

* This Teutonic doctrine seems to be taught in a number of colleges.

impression it leaves is that something might have been made of the writer by a capable instructor, but that his 'training' has rendered him almost incapable of any mental effort. Only a few lines are relevant, and all that they contain is a ludicrous perversion of some words spoken by Cassius.

I do not consider that any of the Examiners marked with undue severity.

ANNEXURE.*

2. (c) Cassius is conceived by Shakespeare in the beginning of the play as man actuated by personal motives. We have a hint of this when Cæsar reveals his fears about him to Antony. He says,

'Such men are never at hearts' ease

When they behold a greater than themselves.'

Next we see him whetting Brutus against Cæsar. He mentions the fever and flood incidents and says

'This man has now become a god and Cassius is wretched creature that must bend his body, if Cæsar but carelessly nod on him.' Then he begins to compare Brutus and Cæsar and tries to show that Brutus is as great and mighty a man as Cæsar. He says 'that both names sound similarly. Even if conjured with Brutus will start a spirit as soon as Cæsar.' Even if weighed they are equally heavy. In thus alluding to the personalities of Brutus and Cæsar, the motive seems to be to rouse personal jealousy in Brutus, he himself being jealous of him. In fact the whole argument of Cassius appears to us to be put forth by a man who himself is jealous and who believes that Brutus too can be tempered into the same spirit. He even declares that the honourable mettle of Brutus may be wrought from that it is disposed. But we should not forget that here and there we have glimpses of the noble side of Cassius as when he expresses his republican sentiments.

'I had as lief not be as live to be

In awe of such a thing as I myself.'

Now in the quarrel scene shows some more light on the character of Cassius and the contrast between him and his nobler friend is more fully brought out. Brutus is a man who is studious of self-perfection. He never sacrifices his principle for his end however noble it might be. He condemns Lucius Pella for taking bribes in spite of Cassius' backing him up. Thus the quarrel arose. The policy adopted by Brutus is not at all pleasing to him. Cassius is not a man who does not sacrifice his

principle. He holds that when urged by the necessity, any means however corrupt is justifiable in achieving their end. He says.

In such a time as this,
It is not meet that every nice offence should bear his
comment.

* This is the argument of Cassius and Brutus strongly condemns it and says that he would even coin his heart for drachmas rather than choose such a course. Now from this it is plain that Cassius is himself corrupt and that he has no lofty moral principles. But this is only one side of his character. Shakespeare here depicts also the tender nature in Cassius. When he grows desperate while Brutus is accusing him of baseness, he requests Antony and Octavius, like a child, to wreak their vengeance on him alone. After the quarrel is subsided he says that his anger has been inherited from his mother. When Brutus informs of him of Portia's death he himself feels her death and says

'Oh Portia, art thou gone?'
He further questions Brutus,

'How escaped I killing when I crossed you so,'
and consoles him by saying

'Of your philosophy you make no use if you give place to accidental evils.'

The practical wisdom in him is also shown when he maintains that they should not advance to Philippi themselves and that they should wait till Antony and Octavius give the battle.

Thus we see that Cassius is depicted in this scene as using tricks of policy and supporting bribes when urged by the necessity of the time. But this is not all. The bright side of his character too is brought out side by side. Even in the beginning of the play the same character is ascribed to him along with touches of lofty republican sentiments.

II. EXAMINERS IN ENGLISH PROSE.

I was on the whole very well pleased with the way in which my assistants did their work. They did their work carefully and conscientiously, sending in their marks and papers up to time, and so far as I am able to judge their averages represent pretty accurately the value of the work done by the students.

I wish to add a few words on my impressions of the work done by the students, in Intermediate Prose.

I cannot say that I regard the English of the candidates as at all satisfactory. It is true that a great many of the candidates have done really good work, but the rank and file show a lamentable want of knowledge of some of the simplest rules of the English Language. I will try to point out as briefly as possible, what I consider to be the worst features of the work done by the inferior candidates who form too large a proportion of the whole number.

(1) The general slovenliness of so many papers, characterized by neglect of all the rules for punctuation, use of capital letters, and paragraphing, combined very often with almost illegible handwriting. These are defects which admit of no excuse, and are within the power of the least intellectual to remedy.

(2) There is a widespread ignorance of the most elementary rules of English Grammar—especially of the use of the definite and indefinite articles, the sequence of tenses, the use of the conditional, the use of *may*, *might*, *must* and *ought* and the use of preposition with verbs. All this seems to me to point to bad teaching in the schools and neglect of the teaching of grammar and composition.

(3) The vocabulary of the students is as a rule far too ambitious. They constantly use words and phrases of whose meaning they seem to be totally ignorant. As one would expect they prefer flowery, ornate phrases to clear simple English.

(4) In studying the texts, the memory seems to play a more important part than the understanding. Words like 'thus' and 'therefore' and 'of course' are often sprinkled about their pages with little sense of their implication.

(5) Even the best candidates show a painful want of knowledge of the background of their texts. This cannot be said to be the fault of the candidates; the teachers must share the blame.

Fully ninety per cent. of the candidates, for example, describe England in the days of Queen

Anne (too many say Charles II) as a sink of iniquity, and make the most outrageous deductions from Sir Roger de Coverley's friendship with the widow, and prince Charles' adventure, with Miss Flora Macdonald.

There are many other points which demand notice, but I will sum up by saying that, I consider that more stress must be laid on the teaching of grammar, composition, and the most elementary rules of punctuation and paragraphing. The vocabulary of most students is far too ambitious; they should be discouraged from using unusual words, and difficult idioms. Much more time and attention ought to be paid to putting the students in possession of the background, necessary for the intelligent study of the texts, and every student should know that no mere cramming up of facts, will compensate for inability to write fairly correct English.

III. EXAMINER IN ENGLISH COMPOSITION ON THE BOOKS SET FOR NON-DETAILED STUDY

The reasons for the shockingly low percentage of passes seem to me these:—

(1) A good many candidates, say roughly a third of the number, are absolutely unfit for a University course and should never have been admitted to a college. They are unable to write the simplest English correctly, and do not give any evidence of having read their book with discrimination.

(2) The large number of failures last year has necessarily helped to swell the failure list this year. * * * *

(3) The abolition of the rule disallowing a candidate from appearing for the examination more than three times, is responsible for many failures. I have no means of knowing the number of pen-worn 'veterans' who have appeared, but, I think, it must be fairly large. It is a pity that these candidates who have been thrice declared unfit for proceeding to a degree, have again been drawn to the University by the

lure of the examination. It may be safely predicted that they will help to swell the failure list in increasing numbers year by year.

* * * * *

I have reason to think that in many colleges the students do not get sufficient practice in composition. The hours fixed for composition are generally taken up, either with reading the set books in the class or with lectures on them. It is needless to say, that this practice defeats the purpose for which the non-detailed study books are prescribed.

IV. EXAMINER IN ENGLISH COMPOSITION (GENERAL PAPER).

I venture to characterize the work of my assistants as completely satisfactory. Even those papers subsequently referred to me by the Chairman for further scrutiny, proved to have been correctly and consistently marked.

* * * * *

The average mark obtained by all the Examiners combined is 22.5 or 38 per cent.

This may seem low, but it is not much lower than in previous years, if at all, and it was arrived at, to within a decimal point or two at most, by each Examiner independently.

V. EXAMINERS IN CHEMISTRY (PAPER I).

The remarks we have to make are based on the answers to the first paper only; but we understand that no modification would be rendered necessary by taking into account the answers to the second paper also.

In the first place we would draw attention to the fact that the percentage of passes, as well as the average mark, is very considerably below the corresponding values for previous years, and we have no doubt that the relative standard of attainment is faithfully reflected in these figures. On the other hand, the standard of the question papers is certainly not higher than that of

previous years. The existence of a very decided deterioration in the quality of the answers this year admits of no doubt, although we cannot be so certain about the causes of it. It is possible, however, to say quite definitely that either the teaching in some of the colleges is defective, or a large proportion of the candidates were unfit to proceed with the Intermediate Course. We recognize that there must be every year a certain number of unfit candidates, but this year the number of these is so large that the matter appears to us to call for remark.

There are two particulars in which improvement is urgently needed; in the first instance, there is abundant evidence in the answer books we have examined that practical work in the laboratory has either been seriously neglected, or else conducted on wrong lines. Large numbers of candidates have answered essentially practical questions in a way that makes it clear that they have never done any laboratory work in connection with them. Secondly, in far too many cases questions have been answered, very often correctly, by quotations from a textbook, subsequently amplified so as to betray the candidate's complete lack of understanding of the subject. This, coupled with the frequent use of expressions or formulæ obsolete for the last twenty years, makes it difficult to resist the conclusion that the teaching is at fault, a conclusion supported by the observation that such mistakes have often been found running through whole batches of answer books, and have been absent from other batches.

In conclusion, we would urge the desirability of inspecting the teaching arrangements in colleges affiliated in the Intermediate Course at an early date, with a view to effecting improvement in the directions we have indicated. If the result of such an inspection were satisfactory, the only alternative is to conclude that large numbers of students are being admitted to the Course who are entirely unfit for admission.

VI. EXAMINER IN CHEMISTRY (PAPER II).

As I wish to focus attention on the main defect of the candidates' training, of which the answers give unmistakable evidence I shall satisfy myself by cursory mention of such defects as slovenly and almost illegible writing, wearying verbosity, absence of logical and scientific reasoning * * * the poverty and worthlessness of diagrams, the reprehensible error of not confining the answer to the question proposed, and of not giving clear, concise and definite answers. These are defects which a systematic course of college examinations should amend.

The main defect however is an obvious insufficiency of laboratory practice.

Questions 2 and 4 were explicitly set to test the candidates' laboratory work. The answers received reveal unmistakably the defectiveness of such work in respect of acquaintance with common chemical compounds and their more evident properties, with apparatus, and with ordinary chemical operations and processes.

Abundant evidence could be offered to substantiate this statement.

Such defects in laboratory practice may be due to any or all of the following causes:—

1. Insufficient laboratory provision and equipment.
2. Insufficient laboratory practice due (a) to insufficient time spent in the laboratory or (b) financial stringency in the recurring supply of the necessary chemicals and apparatus.
3. Unsuitable courses in the laboratory.
4. Lectures without demonstrations.

Presumably (1) has to be excluded, but from the examination results merely it is difficult to arrive at such a conclusion.

I am disposed to regard (2) as the main cause, but without an investigation it is difficult to say to which sub-cause (a) or (b) is the greater responsibility to be assigned.

Again it is difficult to say what share of the responsibility has to be borne by (3) but it would appear considerable.

(4) cannot be excluded, for many experiments can be done conveniently only as demonstration experiments in lectures and it is not probable that if the candidates had witnessed and comprehended such experiments the answers they submitted would be possible.

APPENDIX B.

Report of the Chairman of the Board of Examiners in English.

I may say at the outset that I do not consider the Intermediate standard in English at all too high either as regards the difficulty of the subjects studied or the quantity of literature that has to be read. So far as quantity is concerned the difficulties which colleges that favour intelligent methods experience is rather to spread the work over the two years of the course than to find time to get it all in. That the matter to be studied is not beyond the normal Intermediate student's capacity, and that the kind and degree of proficiency required by the Examiner are not too exacting is, to my mind, proved by the results of the first two Intermediate Examinations which were conducted under what may be called normal conditions.

In these two years I was myself an Intermediate Examiner and in each year set and controlled the valuation of two out of the four papers in English. The impression I formed at the time of the work of the candidates was that it showed a very considerable advance on the work of candidates under the old 'F.A.' conditions, both as regards ability to write grammatical English and to understand and discuss intelligently the subject matter of the books. These impressions were confirmed by the results of the examination. In the first year the percentage of passes in English was 56.7, in the second year it was 61. This year the percentage is only 54.1, and what sort of impression the Examiners have formed of the candidates' work is shown in their reports. I have no doubt whatever that the Examiners' estimate

is substantially correct. The Intermediate Course began with every prospect of success. Since the flooding of colleges with unworkable material it has scarcely had a dog's chance.

I wish to emphasize the fact that, with the one exception of the candidates' fitness conditions in the Intermediate Examination have remained constant throughout. The question papers have followed faithfully the model of the papers set in 1911, which were drawn up in accordance with the guiding rules formulated by the Board of Studies and approved by the Syndicate, and which are supplied every year to Examiners and Assistant Examiners in the Special Instructions. These Special Instructions have been more than once communicated to Principals of Colleges for information and guidance, and they can have no reason to complain of being kept in ignorance of what is expected from their pupils. Answer papers have been throughout valued on the principles set forth in the same Instructions, as also in supplementary guiding rules agreed upon by the Committee of the Board of Examiners appointed to conduct the examination of 1911. The general principle underlying the supplementary rules is that in assigning marks regard should be paid solely to evidence supplied by the candidates' paper as to his fitness, so far as English is concerned, to proceed to the Degree Course. If an Assistant Examiner's impression of a paper on the whole is favourable, but his actual valuation works out at something below the pass marks, he is required to reconsider the paper and adjust his marking to the final impression. Assistants have been particularly instructed to mark generously wherever evidence of really good work is forthcoming. There has been, I believe, no sort of tendency to increased severity or any attempt to 'screw up the standard.' On the other hand, I think it highly probable that the presence of large numbers of absolutely unfit and ill-prepared candidates has operated in the direction of an unconscious lower-

ing of standards. I may add that this year in order to meet difficulties unavoidable in an examination for which the candidates are reckoned in thousands, and in which consequently the services of a large number of assistants are required, a special 'scheme of moderation,' formulated by the Board and approved by the Syndicate, was adopted.

The bad results obtained in English this year and in recent years, are, I have no sort of doubt, mainly due, not to any defects in the course itself or the conduct of the examination, but to

(1) the fact that the classes in many, probably in the majority of colleges are much larger than the strength of the staff, the accommodation and the equipment warrant;

(2) that in these classes the majority of students are as yet quite unfit for University studies;

(3) that partly as a consequence of (1) and (2) methods of teaching and study obtain which are not calculated to afford any real intellectual training but are calculated to defeat the ends which the course is intended to serve.

In justice to Professors and Lecturers it should be said that for the bad methods of study the teaching staff is not by any means solely, and may be hardly at all, to blame. Even when sound methods are favoured the strong disinclination on the part of the student—which is referred to by the Examiner in English Poetry—to submit himself to the mild discipline required, has to be reckoned with. The majority of students, there can be little doubt, stoutly refuse to believe that methods of study which call for some independent effort and some little exercise of the faculty of reason are in the long run easier than the traditional methods, and much more paying. This clinging to the old ways is, I am of opinion, chiefly responsible for the frequent failure of candidates who might have been expected to pass.

UNIVERSITY OF MADRAS.

SENATE MEETING.

An adjourned meeting of the Senate was held on Friday the 21st instant in the Senate Room at 4.30 P.M. with the Hon'ble Sir B. S. Sivaswamy Aiyar, Vice Chancellor, in the chair. There was considerable discussion on the resolution relating to the reversion to the old scheme of a two years' course in Law and to the holding of each of the Law Examinations twice a year. Difficulties arose as to whether the amendment of Mr. C. P. Ramaswamy Aiyar to the original proposition was really an amendment. Although the amendment of Mr. Ramaswamy Aiyar was accepted by Mr. A. Subramania Aiyar, the mover of the original proposition, the Senate did not give its unanimous consent. Some of the Fellows did not know what to vote upon. Mr. V. Ramesam was not given the unanimous consent of the Senate to withdraw his amendments to the original proposition and the amendments were formally moved by Dr. Nair and lost. One of those amendments could not even be moved formally in consequence of an amendment of Mr. Ramaswamy Aiyar having been carried. Some of the Fellows rose to point out irregularity in the procedure in the matter of putting certain amendments to vote first before the consideration of the rest. The task of conducting the meeting was a difficult one.

Mr. A. Subramania Aiyar moved the following proposition:—

That the Faculty of Law be requested to consider and report as to whether it is not expedient and desirable, by such reduction and readjustment of subjects for the Law course as may be deemed fit, to revert to the old scheme of a two years' course in Law instead of a three years' course and whether each of the Law examinations cannot be held twice a year, and to present to Senate in the form of amendments to the Regulations, any alterations in the directions above indicated which may be agreed upon.

He said that there was a strong public feeling that the University in extending the B. L. course to three years had done a great wrong to the student population, that purely academical considerations had been allowed to prevail and considerations of a practical character had not been given their due weight. It was not right to set aside public opinion for the public were interested in the welfare of the University, and of the students. A great error had been committed. Even when the resolution for a three years'

course was before the Senate for adoption, there was a great opposition. The primary aim of the Law classes was to give the needed preparation for students and not a full course. To get the minimum amount of cultural knowledge of Law a two years' course was sufficient. Knowledge of Roman Law with all its intricacies, however valuable, was absolutely unnecessary. Knowledge of the general principles of a Law should be insisted on. The most distinguished lawyers and High Court Judges and the present Advocate-General were trained under the old scheme of two years. Students should be taught the general principles and given ample scope to study the details themselves. The three years' course was abandoned in favour of two years' course which worked successfully for many years. If the course was one of three years, even brilliant students of the University unhampered by chances would be 25 years old when they finished the B.L. course. The remarks of Sir S. Subrahmanya Aiyar and the protest of the Vakils' Association showed that the expert opinion was in favour of a two years' course.

Passing on to the second part of the proposition he said that the holding of the Law examinations twice a year would be to the best interests of the students.

At this stage the Vice-Chancellor remarked that Mr. Subramania Aiyar had exceeded his time and asked him to bring his remarks to a close.

Mr. Subramania Aiyar wanted leave to speak for two minutes more and said that the percentage of failure according to the new scheme was 41.5 which was very high. That being so they should not be compelled to wait for a whole year. Each October Examination would bring a clear profit to the University (cries of Time! Time!). Mr. Subramania Aiyar then resumed his seat.

Rao Bahadur T. Vijayaraghavachariar in seconding the resolution said that by a fit of academical enthusiasm they extended the course to three years. It was not true that pleaders practising in the mofussil did not possess sufficient knowledge of the codes of civil and criminal procedure and that argument for a three years' course would not hold good. Considering the condition of student-life in Madras, it was not desirable to have a three years' course. The supporters of the academical scheme were in favour of the study of Roman Law and the supporters of the practical scheme in favour of the study of Civil and Criminal Procedure.

Mr. C. B. Ramaswami Aiyar moved the following amendment:—

(*) That the words 'and whether each of the Law examinations cannot be held twice a year', be omitted.

(ii) That the following words be added as a separate clause:—

That each of the Law examinations be held twice a year, and that for this purpose the Syndicate be requested to draft under Regulation 96 (viii) such regulations or consequential amendment thereof as may be necessary and submit them to the Senate for approval at the October Meeting of the Senate.

He said that there was considerable misconception with reference to the introduction of the three years' course and he would tell them why that course was finally resolved upon. The Faculty of Law met upon the requisition of one or two members who wanted to reconsider the whole subject of the curricula for the F.L. and the B.L. courses. It was thought that it was a great handicap to a young lawyer not to know the Procedure and subjects akin to procedure such as the Law of Limitation and not to be in a position to advise his clients on matters which came up before him, whereas he might be proficient in Roman Law. Owing to this conflict of ideas, the Faculty of Law arrived at a compromise and those subjects were added to the B.L. course. It was practically agreed that the student should possess a working knowledge of the Land Tenures in this Presidency. It was pointed out that a student going through the Transfer of Property Act would have a general idea of the basic principles of the English Law on Real Property. The root ideas of the Roman Law would be acquired by a student in the course of studying the other subjects for the B. L. It was suggested that a two years' course might be retained with the addition of the practical subjects already touched upon and the Roman Law and the English Law on Real Property might be omitted. Those who proposed that were outvoted. It was said by a majority of the Faculty of Law that the B.L. course was not only a practical course but also a cultural course and those subjects ought also to be included (Mr. Arthur Davies.—Unanimous). Then it was thought that they could not compress the study of those subjects within two years. Therefore three years was insisted upon. He even now adhered to the opinion he had already expressed that for B.L. and F. L. courses it was unnecessary for a student to devote very much attention to Roman Law and English Law of Real Property. If the curricula were so altered as to leave out

those two subjects and add Procedure and Land Tenure, he would unhesitatingly vote for a two years' course. He assured Mr. Subramania Aiyar that the matter would be thrashed out in the Faculty of Law again and would be brought up before the Senate at the October meeting. If the Faculty of Law was still in favour of three years' course, it was open to Mr. Subramania Aiyar to proceed with his proposition. He would implore Mr. Subramania Aiyar to drop his proposition now. But the second part of the proposition need not go before the Faculty of Law. Whether the course was one of two years or three years, it was essential that a Law student who failed in an examination should not be made to wait for one year. If Law examinations were held twice a year, that would go a great way in relieving the burden of the students. There ought to be no difficulty for Mr. Subramania Aiyar in accepting his amendment.

Mr. K. V. Rangaswami Aiyangar in seconding the amendment said that the University might impose such fees as would make the examinations self-supporting.

Mr. Subramania Aiyar accepted Mr. Ramaswamy Aiyar's amendment and did not wish to press the first part of his proposition.

Mr. Arthur Davies said that Mr. Ramaswami Aiyar in his speech had taken up a different line. His speech was hardly in agreement with his amendment. His amendment was not in order.

Mr. Ramaswami Aiyar in explaining the position said that the first part of the original proposition related to the reduction of the Law course to two years and the second part was that Law examinations should be held twice a year. In the exercise of his right under Regulation 24 he moved to omit the words "and whether—a year" and to add "That each of the Law examinations—Senate" as a separate clause. The first part of the proposition was withdrawn.

The Vice-Chancellor:—Mr. Ramaswami Aiyar's amendment was an amendment of the second part of the resolution and it was for the Senate to decide with regard to the first part of the resolution.

This position was also clearly explained by Mr. Justice T. V. Seshagiri Aiyar.

Mr. Ramalinga Reddi asked whether the amendment was in order.

The Vice-Chancellor ruled that the amendment was in order and said that the discussion might proceed.

Mr. Natesan said that between two sets of students claiming pre-eminence to particular studies, the interests of students were sacrificed. It was high time that they all should join together and see that the great wrong was righted. Three years' course was unnecessary. They were all aware that considerable difficulty was experienced by students in getting accommodation. Why should they be compelled to stay in the city of Madras for a longer time than was necessary?

Mr. Davis (Cochin) moved that the consideration of the matter be referred to the October meeting, so that the subject might be thoroughly considered by the Faculty of Law in the meanwhile.

Mr. Mark Hunter said that he voted for a three years' course, because he, who knew nothing about Law, thought it was serious matter if students should be deterred from taking a higher cultural course. He did not second Mr. Davies, but he wanted to say that he was afraid that considerable harm might be done to the Arts course by the Law course of three years. From that point of view, the matter should be reconsidered.

Mr. J. H. Stone said that there would be no very great opposition if Mr. Subramania Aiyar's proposition was carried and if Ramaswami Aiyar did not press his amendment. They could save a lot of time in discussion and the Faculty of Law could go into the matter again and devise some plan by which cultural studies might receive attention. The present arrangements for conferring the degree of M. L. were not particularly satisfactory. There was no prescribed course of studies for the degree and it was in the position of the old M. L. degree. The Faculty of Law while considering the desirability of having a two years' course or a three years' course for the B. L. might also consider whether the cultural side of Law could be properly taken up in the Law College and be taught. Persons showing proficiency on the cultural side of Law would receive the M. L. degree. The Senate might then consider about going back to the two years' course for the ordinary B. L. degree.

Mr. Justice K. Srinivasa Aiyangar said that the three years' course would be beneficial but the two years' course was quite sufficient and he would be exceedingly glad to have a two years' course.

Mr. Ramannja Chariar (Pachaiappa's College) asked why they should insist upon their students a three years' course when the High Court permitted Barristers (Matriculates) who went to England and completed their two or three years'

course in the Inns of Court and returned to India without good knowledge of Indian Law.

Mr. Justice Seshagiri Aiyar did not oppose the matter referred to by Mr. Stone going before the Faculty of Law. But as regards Mr. Ramaswami Aiyar's amendment, the matter should be considered at once. The two things were entirely different. Those examinations should be held half-yearly. Otherwise students were likely to lose touch with the subjects a great deal.

Mr. Stone hoped that the Registrar would be able to tell them about the amount of expenditure if examinations were held twice a year.

Vice-Chancellor:—It is not a question of expenditure but a diminution of profits by holding examinations twice a year.

Mr. Allen pointed out that the question of referring the matter of the three years' course to the Faculty of Law and the question of holding the examinations twice a year could not be put as a single proposition.

Vice-Chancellor:—I shall put them separately to vote.

Mr. Allen:—I move that the meeting pass on to the next business on the Agenda paper. I think there has been some confusion in the way in which proposals and amendment were put before the House.

Khan Bahadur Azizuddin Saheb agreeing with Mr. Justice Seshagiri Aiyar said that the Senate should decide at once that the examinations should be held twice a year. If they did so they would simply follow the practice obtaining in England.

Mr. F. E. Corley seconded the amendment of Mr. Allen.

Mr. Natesan pointed out that if that amendment was carried, they would be shutting out the question altogether from discussion.

Mr. Corley continuing said that in this matter the legal intellect of Madras was in a complete muddle. Lawyers treated laymen with contempt. Mr. Ramaswami Aiyar's amendment was in such a muddle that they could not understand it. Half-yearly examinations were held. He did not know why Mr. Ramaswami Aiyar pressed the mover of the proposition to withdraw it. The whole thing was not in shape and should be put into shape and brought before the Senate for a reasonable discussion instead of their talking over the matter for over an hour.

Mr. Ramaswami Aiyar said that the confusion was not in the mover of the amendment or in the mover of the proposition. He was surprised that Mr. Corley should think that there was any muddle. The muddle was not in any one of those who had spoken excepting himself. He then explained the first portion of the proposition and his amendment. Whether the proposition was dropped or not, his amendment could come separately. There was no object in adjourning the discussion of the matter, unless it was considered to be beyond the province of the Senate, which, he took, was certainly not the case. There was no difficulty in understanding the position. If Mr. Corley could not understand it, he the speaker, could not make him understand it.

Mr. Justice Seshagiri Aiyar said that in order to save time which most of the gentlemen were anxious to do, the matter should be put to vote at once. Otherwise the matter would again crop up.

Mr. Arthur Davies supported Mr. Allen. He was taken by surprise at the line taken by the Director of Public Instruction and Mr. Mark Hunter. It was said that the Faculty of Law should consider the matter in the light of what the Faculty of Arts considered to be the interest of Arts students for the Honours course. The thing was getting into more muddle than ever. He did not know how the three years' course of the B. L. would affect Biology, Science and the various Honours courses. In the B. A. Honours course the number was 67 in 1914, 151 in 1915. He was surprised and probably most of his friends were surprised at the attitude taken by the Director of Public Instruction. It was not sought to refer the matter to the Faculty of Law in the light of some matter which they had not got before them. At first the mover of the original proposition wanted to withdraw it thinking that the Europeans would unanimously vote for the withdrawal. Now it was found that there were Europeans who would vote for the proposition itself.

Dewan Bahadur E. A. Govindaraghava Aiyar in opposing Mr. Allen's amendment said that the considerations that applied to the second part were very different from the considerations that applied to the first part. There was public opinion in favour of two examinations in a year; whether it led to loss or profit that was a subordinate consideration.

Mr. Allen's amendment for adjournment was put to vote and lost by 28 against 40, Messrs. Stone and Mark Hunter voting against the amendment.

The Vice-Chancellor then wanted to put the first part of the resolution to vote.

Rev. Mr. Macphail pointed out there were other amendments to the propositions and they could not put the substantive motion to vote until the amendments were disposed of.

Mr. V. Ramesam asked the permission of the House to withdraw his amendment.

Vice-Chancellor: Mr. Macphail's observations with regard to Rule 52 would hold good only if the amendments were not withdrawn. If the amendments were allowed to be withdrawn under Rule 51, it was not open to any other member to move them.

Mr. Allen:—The withdrawal was not approved by the Senate unanimously.

Vice-Chancellor:—Is there anybody else who wishes to move Mr. Ramesam's amendment?

Dr. Nair moved and Mr. Ramuni Menon seconded the following two amendments relating to the first part of the proposition:—

(i) That the words 'consider and report . . . re-adjustment of subjects for' be omitted, and the words 'so revise' be substituted.

(ii) That the words 'as may be deemed fit' be omitted and the word 'as' be substituted.

Rev. Macphail said that he found it difficult to know why the Faculty of Law should be asked to reconsider the question when they had made a unanimous recommendation in favour of a three years' course. He did not know why some of the members of the Faculty of Law had changed their minds. He did not know what were the reasons behind. However he did not want to stand in the way of sending the matter back to the Faculty of Law if there was a general feeling to that effect.

The two amendments of Dr. Nair were put to the meeting and lost.

The first part of the proposition was then before the House.

Mr. Arthur Davies in opposing the motion said that only 18 months ago the Senate passed the three years' course and sent up the scheme to Government. Now again they wanted to go back to the two years' course. Why should Mr. Mark Hunter consider that the Honours courses were going to be disturbed. He ought to have foreseen and opposed the three years' course eighteen months ago. If the Senate sent up a recommendation of a two years' course, Government might think that the Senate were suffering from delirium. The lawyers who had spoken at the meeting had

not spoken with warmth. What was the use of sending that foolery? The Faculty of Law would send back the scheme unaltered. Both the mover and the seconder of the proposition were laymen. The mover was a Professor of Philosophy. They were arguing on other considerations. The actual extra cost of a student for the additional year was only Rs. 95 (No! No!), leaving aside the cost of living. The cost of living should not be added. A three years' course man would get into practice quicker than a man with a two years' course. The University course in England for the Bar was three years. They might consider the question of the period of the course later on and see meanwhile how the three years' scheme worked. It would be pure madness to change the course before they gained experience.

Dr. Swaminathan said that no fresh reasons had been advanced that the Faculty of Law should reconsider the matter.

Khan Bahadur Azizuddin Sahab in supporting the proposition said that he was one of those who voted for a three years' course. Now he had ascertained the public opinion in the matter and he was in favour of a two years' course. Roman Law was not compulsory for the Law study in London.

Mr. Arthur Davies:—If it is so, it is done recently.

Mr. Govindaraghava Aiyar said that Mr. Davies began by opposing the resolution and ended by supporting it. As three years' course of Law affected the Arts course, the Director of Public Instruction and Mr. Hunter wanted that the Faculty of Law should reconsider the matter and consult the Faculty of Arts also. Lawyers had a great reputation for reasonableness. If only the reasonableness for a change of opinion was pointed out to them, they would not hesitate to change their opinions. They cared more for the correctness of views than for the charge of changing their opinions. The constitution of the Faculty of Law was not the same now. The practice of the Senate was always to oppose expert opinion to public opinion. In this case expert opinion was at one with the public opinion. That was all the greater reason that a change should be made. For the last 35 years people were satisfied with two years' course. In India they were largely assisted by codified law. The thing was quite different in the case of those who practised before an English Bar.

The first part of the proposition was carried by 44 against 13.

Mr. Ramaswamy Aiyar's amendment to omit the words "and whether each of the Law Examinations,"

nations, . . . twice a year" was put to vote and carried by 44 against 4.

Mr. Ramaswamy Aiyar's amendment to add as a separate clause the words "that each of the Law Examination . . . October meeting of the Senate," was put to vote.

Mr. Arthur Davies wanted to speak on it, as he said it had not been discussed. (ORDER! ORDER!)

The Vice-Chancellor ruled that that amendment had already been discussed.

This amendment was also carried by a majority of 33 against 25 votes.

The Vice-Chancellor then ruled that the first of the following amendments was out of order:—

(iii) That the words 'to report' be inserted between the words 'and' and 'whether.'

(iv) That the words 'which may be agreed upon' be omitted.

One gentleman stood up and said that the whole thing was faculty voting and illegal and the first of these two amendments should have been voted upon first.

The Vice-Chancellor then said that the last amendment might be moved if any member thought it necessary.

The last amendment not being moved by any body, the Vice-Chancellor asked if any body wished to make any further remarks on the whole proposition as amended.

Mr. A. Davies said that he was in sympathy with having two examinations a year. But there was a great danger of the lowering of the standard by the examiners as at the October examinations only failed candidates would be examined. The examiners would be inclined to be more lenient.

The Hon. Mr. Yakub Hasan Sait said that that question had already been adopted by the Senate and could not be put to the Senate again.

Mr. Davies continuing said that the difficulty was to get the same standard of examiners. In May and June the examiners would be at Ootacamund and would have ample time to value the answer papers. In October, busy vakils would pay less attention to the valuation of answer papers and would try to finish valuation as quickly as possible. Of course they could get vakils who would do it well. But they might as well avoid the danger of lowering the standard. They ought not to rush into the matter in a hurry.

The original motion as amended was carried by 34 against 23 votes.

SENATE MEETINGS.

Mr. C. P. Ramaswami Iyer then moved the following proposition:—

That in place of Regulation No. 3 of the Regulations of the University of Madras, the following be substituted:—'Ordinary Meetings shall be held on or about the first Friday in March, the first Friday in July and the first Friday in November.'

In doing so he said that in the Senate meetings they found that many subjects of importance were inadequately discussed for want of time and two meetings in a year were found to be insufficient for the proper discussion of the subjects that were brought before the Senate for discussion.

Mr. K. V. Rangaswami Iyengar seconded the proposition.

Mr. C. P. Ramaswami Iyer accepted the amendments of Mr. V. Ramesam which ran thus:—

(i) That the word 'September' be substituted for the word 'July' and the word 'December' for the word 'November' wherever the words 'July' and 'November' occur.

(ii) That the word 'August' be substituted for 'June' and 'November' for 'October.'

Rev. E. M. Macphail opposed the proposition and said that he saw no necessity for the resolution being passed since they had power to call for special meetings and extraordinary meetings if the subject for discussion needed more meetings than two. For instance the present meeting was one of that nature.

Rev. George Pittendrigh desired to know the amount of expenditure of each Senate meeting.

The Registrar replied that he had not the exact figure before him; he said that the approximate amount of expenditure would be Rs. 2,000.

Mr. H. J. Allen opposed the motion and said that the greater the number of meetings, the greater would be the business created by gentlemen who were anxious to see their names in the Agenda paper in connection with the moving of the resolutions and amendments. The increase in the number of meetings would give opportunity for the multiplication of business which could be usefully cut short. The Syndicate had full power to call for special meetings and extraordinary meetings. As the Rev. Macphail had observed there was no necessity for the change in the rules relating to the number of Senate meetings in a year. What Mr. Macphail had

said was a perfect answer to Mr. C. P. Ramaswamy Iyer. The additional expenditure of Rs. 2,000 was quite unnecessary.

Rao Bahadur K. Ramanujachariar opposed the proposition and remarked that it would be very inconvenient for the Fellows to go to Madras thrice a year, they had to travel long distances. He suggested that the Senate might continue to sit for two or three days more in March and October if the business to be done needed more time.

Mr. A. Subramania Iyer said that it was very undesirable to rush through the work for want of time in the meetings and the holding of three meetings in a year would surely give ample scope for the adequate discussion of the subjects.

Khan Bahadur Azfuddin Sahab opposed the resolution on the ground that it involved extra expenditure. He also favoured the view taken by Rao Bahadur Ramanujachariar that they might sit for three or four days in March and October if the business to be done was found to be heavy. If any unforeseen necessity arose they had the power to call for extraordinary meetings.

Mr. K. B. Ramanatha Iyer said that those who were familiar with the nature of the work they were doing there, knew well that there was need for more than two meetings in a year.

Mr. K. V. Rangaswamy Iyengar said that by having three meetings in a year they might quickly dispose of the resolutions and recommendations of the Committee instead of waiting for a long time. No doubt the long journey gave inconvenience to the Fellows; but that argument would not be considered weighty in consideration of the importance of the public duty that demanded their presence in Madras. In such cases there must no doubt be some sacrifice of personal convenience in the interests of public duty.

Mr. C. P. Ramaswamy Iyer in reply said that the argument that the holding of three meetings would tend to create business was not to be taken in any serious spirit. His object in bringing the resolution before the Senate was to give full scope for the adequate discussion of subjects that came before the Senate. Rushing through the work without proper discussion was very unsatisfactory.

The resolution was lost, 24 voting for and 41 against it.

Mr. C. P. Ramaswamy Iyer then moved the following proposition:—

(i) That, in place of the first clause in Regulation No. 6, the following "be substituted":—

'Any Member who wishes to propose a resolution at an Ordinary Meeting of the Senate shall forward the terms of the resolution to the Registrar so as to reach him not later than the 10th February if it is intended for discussion at the March Meeting, not later than the 10th June if it is intended for discussion at the July Meeting or not later than the 10th October if it is intended for discussion at the November Meeting.'

Mr. K. Ramanuja Chariar seconded it.

Mr. Macphail opposed the proposition and said that about a month's time was necessary for the proper framing of the resolutions and amendments and the preparation of the Agenda.

Mr. E. Winkler and Mr. B. Hanumantha Rao opposed the resolution.

The resolution was lost.

Resolutions suggesting some verbal changes in Regulations 9 and 10 and the alternative resolution were withdrawn by Mr. Ramaswamy Iyer.

THE SYNDICATE.

Mr. G. A. Natesan then moved the following proposition:—

That in Regulation 87 for the word "ten," "fifteen" be substituted.

The Regulation 87 runs thus:—The Syndicate under Section 15 of the Indian Universities Act, 1904, shall consist of the Vice-Chancellor as Chairman, the Director of Public Instruction and ten elected members.

Mr. Allen at this stage rose to a point of order and said that the proposition of Mr. G. A. Natesan would bring about a conflict with the Act XV, sub-section 2.

Sub-section 2 runs thus:—The Regulations referred to in sub-section (1) [regarding the composition of the Syndicate] shall be so framed as to secure that a number not falling short by more than one of a majority of the elected members of the Syndicate shall be Heads of or Professors in Colleges affiliated to the University.

The Vice-Chancellor ruled that the proposition moved by Mr. Natesan was not inconsistent with the Regulation referred to by Mr. Allen.

Mr. Natesan then said that, as things were happening at the present time, many mofussil Colleges were not represented in the Syndicate. If the number be increased from 10 to 15 that grievances of the mofussil Colleges could be removed. The members of the Syndicate seemed to belong only to two Colleges in Madras. The best way of removing the anomaly was to in-

crease the number of members in the Syndicate. Mr. K. Ramanujachariar seconded the proposition.

Mr. Mark Hunter opposed the proposition and said that the Syndicate formed the executive body of the University and any increase in the number of members of the Syndicate would tend to make that body unwieldy. The Syndicate would not be helped by the addition of the mofussil members. At the present time many orders were passed in circulation and the mofussil members would not be in a position to do as good work as the Madras members. It was wrong to say that only two colleges claimed all the places there. Individuals were chosen on their own merits and it was mere chance that they happened to be in those colleges. No partiality for any particular college was ever shown and election went on individual merits.

Mr. P. V. Seshu Iyer then moved his amendment that the word "twelve" be substituted for "fifteen."

In doing so Mr. Seshu Iyer said that by increasing the number from 10 to 12 he hoped to secure better representation of the mofussil colleges in the Syndicate.

Mr. K. V. Rangaswamy Iyengar seconded the amendment.

Rev. G. Pittendrigh opposed the amendment and the proposition. He said the resolution for the expansion of the Syndicate was not calculated to do any good. Mr. Natesan said that only two Madras colleges were represented there. That was a wrong idea. Mr. Tait, Dr. Mitchel and the late Father Sewel were all valuable members of the Syndicate. The election was purely by individual merits.

Mr. A. Davies wanted to know what guarantee there was that if the number be increased, the mofussil members would come into the Syndicate. He was afraid that more Madras men would get into the Syndicate and the intended object would not be realised. He opposed the proposition and the amendment.

Mr. K. V. Rangaswamy Iyengar said that it was wrong to say that the Madras members alone could do useful and efficient work in the Syndicate. The mofussil colleges were very much interested in some questions that came for decision before the Syndicate. They could not express their views before the Syndicate because they were not represented in that body. Certain idiosyncracies of the Madras colleges had been enforced upon the mofussil colleges. The Madras

colleges had absolutely no right to dictate to the mofussil colleges. The Madras members on the Syndicate had no experience of the mofussil and they had no knowledge of the wants of the mofussil colleges. It was quite necessary that good relationship should exist between the Madras colleges and the mofussil colleges. It was but fair that the mofussil colleges should have representations in the Syndicate to express their policy or wants.

Father H. J. Quinn said that a mofussil member would do as good work as the Madras member on the Syndicate. The Madras member in the Syndicate should know that colleges do exist in the mofussil. It was but fair that the mofussil colleges should be represented in the Syndicate.

Mr. L. A. Govindaraghava Iyer said that it was not correct to say that the members of the Syndicate should be all Madras. Questions now and then arose which affected the mofussil colleges. For instance in the matter of appointing the University Lecturers and in choosing the places where the lectures had to be delivered the mofussil colleges should be consulted. With regard to this point there was a good deal of dissatisfaction in the mofussil that the interests of the mofussil colleges were not generally taken into consideration. If the mofussil colleges should be within the jurisdiction of the Madras University, they had a right to demand representation in the Syndicate, the Executive body of the University. Even in Madras it must be said that all the Madras colleges were not represented in the Syndicate.

Mr. J. H. Stone observed that mere increase in the number of the Syndicate would not ensure the election of the members from the mofussil colleges.

Khan Bahadur Azfuddin Sahab said that the Syndicate was the executive body and it was not possible for it to receive representatives from all the mofussil colleges. He said that he could not understand the object of increasing the number in the Syndicate.

Mr. Natesan accepted the amendment. Mr. P. V. Seshu Iyer.

The proposition as amended was put to vote and carried, 43 voting for and 25 against it.

On the motion of the Hon'ble Mr. J. H. Stone, the meeting was then adjourned.

Second Day's Sitting.

SATURDAY, 22ND JULY 1916.

The Senate resumed its sitting on Saturday, the 22nd July, at 3 P.M., in the Senate Hall with the Hon'ble Sir P. S. Sivaswamy Iyer in the chair.

On the motion of Mr. K. V. Rangaswamy Iyengar the consideration of the proposition of Mr. Ramalinga Reddi relating to the composition of the Syndicate was taken up first. The proposition required that in Regulation 88 the word *eight* be substituted for the word *six*. Regulation 88:—At least five of the elected members shall be heads of or Professors in colleges affiliated to the University.

The proposition was accordingly moved by Mr. Ramalinga Reddy and seconded by Mr. B. Hanumantha Rao.

Mr. P. V. Seshu Iyer then moved his amendment, that the word *six* be substituted for *eight*.

Mr. K. V. Rangaswamy Iyengar seconded the amendment.

Mr. Macphail opposed the amendment. The amendment when put to vote was carried, 32 members voting for and 25 against it.

The original proposition as amended was put to vote and passed, 38 members voting for and 1 against it.

ELECTION OF SYNDICATE MEMBERS.

Mr. G. A. Natesan then moved the following proposition:—

That five members of the Syndicate shall be elected by the Faculties, two by Faculty of Arts, and one each by the Faculties of Law, Medicine and Engineering and that the necessary regulations fully providing for such election by the Faculties be made.

In doing so he said that each of the Faculties should be given the right of representation in the Syndicate and they should be given the right to elect their own representatives. It would be to the advantage of the University to carry out the proposition. That was the practice that obtained in Calcutta. He saw no reason why it should not be so in Madras.

Mr. K. Ramanujachariar seconded the proposition.

Father Quinn said that the Syndicate was the executive body of the University and it seemed to him that it did not very much matter if the old state of things continued to be in force.

Rev. Pittendrigh said that he saw no great purpose served by the carrying out of the proposition.

Mr. Allen said that the present system of election appeared to him to be better; for the position of the Syndicate member elected by the whole body of the Senate was much better than that of one chosen by a small body of men constituting different faculties. Syndicate members should be chosen either by the Faculties or by the Senate, not by both.

Mr. Natesan's scheme contemplated a third method by which the election had to be made partly by the Senate and partly by the Faculties. He did not exactly know if the case called for any change in the existing regulation. As it existed at the present time no injustice was done to any body.

Mr. Natesan said that the Arts Faculties had the largest number of members in the Syndicate. It might be so owing to an unconscious bias on the part of the voters. If each Faculty should choose its own representative the invidious distinction would be removed.

The proposition was carried, 80 members voting for and 29 against it.

WORK OF THE UNIVERSITY PROFESSOR OF COMPARATIVE PHILOLOGY.

Mr. Natesan moved the following proposition:—

That the Syndicate be requested to furnish the members of the Senate before the 1st of September a full account of the work done by the University Professor of Comparative Philology and by the several Readers appointed by the Senate.

Mr. Natesan said that the Government of India gave them grants to be utilised in the best way possible. Formerly it was decided by the Senate to create a number of University Professors to be engaged in the Research work. There was a great opposition to the utilisation of the grants in the direction of improving the languages and there was great demand for the utilisation of the grants to encourage scientific study and research work. University Professors had been appointed together with a number of Readers and languages were preferred to science. Every one was in the dark as to the work turned out by the Professor of Comparative Philology and it was but proper that the Syndicate should furnish some account to the members of the Senate regarding the work done by the University Professor of Comparative Philology and by the several Readers appointed by the Senate. It was the opinion of some that the

amount of Rs. 36,000 was not spent very advantageously and they did not get enough return for the money spent. The Government of India even in the years of crippled finance had given them grants to be utilised to their best advantage. It was mainly intended to encourage research work. The research work of the University Professors was now in the dark; nobody could now say anything of the nature of the work done by the University Professor of Philology. The Senate should know exactly the quality and quantity of work turned out by the University Professor of Comparative Philology.

Mr. G. Venkataranga Rao seconded the proposition.

Mr. Mark Hunter opposed the motion and said that it seemed to him that the University Professor of Comparative Philology was doing work under great disadvantages. He had to tackle the problem with special reference to Sanskrit, Urdu and the Dravidian languages. It was quite unfair to call upon the Professor to submit an account of the work done by him. It appeared to him to be invidious to call for a report from him while it was not so called from others. Nowhere in the world was it done so. The Professor would send his annual reports to the Syndicate and the Syndicate would not withhold any information on that point from the Senate. The proposition was quite unnecessary.

Mr. Moffat said that much dissatisfaction existed at the time when the appointments were made and there was great disappointment felt by many members of the Senate that the study of science was not encouraged and money was not spent in scientific researches and study. The Senate had a right to know the kind of work done by the Professor and the Readers.

Mr. Macphail said that what Mr. Moffat said was not in reference to the point in question. The Senate had appointed a Committee to look into the matter and the present proposition would not serve any useful purpose.

Mr. C. P. Ramaswamy Iyer desired to know how the Committee had decided to supervise the work of the Professors and the Readers. They did not want to have an account of the work done by the Professor day by day. They were all anxious to know the nature of the work done by him and the progress made from time to time.

Mr. J. H. Stone said that it seemed to him that the Committee appointed by the Senate would supervise the work of the Readers. It was quite unnecessary that the Professor of Comparative

Philology should be asked to furnish an account of his work. To call for a report from him was highly objectionable.

Mr. K. V. Rangaswamy Iyengar said that the Syndicate was asked to give the Senate some account of his work and not the Professor. The qualifications of the Professor were said to be growing day by day. Every attempt had been made to deny information to the Senate regarding the work of the Professor. He could not see any good reason why the information asked for was not given at all. As a member of the Senate he desired to be satisfied regarding the work done by the Professor.

Mr. L. A. Govindaraghava Iyer said that when the Committee was appointed, it was clearly said that it had no power of supervision over the work of the Professor. Rightly or wrongly some doubts had been entertained as to the kind of work done by the Professor. They should have materials before them to judge if the work had been well done. They must know what work had been done by him, especially when the nature of the work done was called in question. The fact that other Professors were not asked to submit any report was no reason why the Professor of Comparative Philology should not be asked to submit an account of his work. The best course for the Senate to follow would be to throw as much light as possible on the matter and prove how unfounded the criticisms against him had been. The resolution was carried, 33 members voting for and 31 against it.

SPECIAL LECTURES BY EXPERTS.

Mr. G. A. Natesan then moved the following Resolution:—

That it be a recommendation to the Syndicate to arrange for special courses of lectures under Regulation 390, by one or more of the following gentlemen:—

Dr. Jagadis Chandra Bose, B.Sc. (Cantab.), D.Sc. (Lond.), C.S.I., C.I.E.

Dr. Prafulla Chandra Ray, D.Sc. (Edin.), C.I.E.

The Hon'ble Prof. Raghunath Purushottam Paranjpe, B.Sc.

In doing so he said that he had not much to say on the proposition, since it was one that would meet with the approval of the Senate. It would be much to the advantage of the University of Madras that eminent Indians like those mentioned should be asked to deliver lectures on special subjects.

Mr. Macphail seconded the Resolution.

Mr. K. R. Guruswamy Iyer said that more eminent men could not be had for the purpose. He was feeling impatient why an invitation had not been already sent to them.

The Resolution was carried.

NOTICE OF SENATE MEETINGS.

Mr. Ramalinga Reddi then moved the following proposition:—

That in Regulation 6A (1) (a), line 6, the word 'February' be substituted for 'January'; and in line 8, the words 'First Friday in October' be substituted for 'Third Friday in September.'

Mr. P. Lakshminarasu seconded it.

The proposition was carried without much discussion.

B. SC. DEGREE.

Mr. Fyson then moved the following resolution:—

That to Regulation 187 be added at the end, the words 'or Bachelor of Science Degree Examination or Bachelor of Science (Honours) Degree Examination'.

Mr. Fyson gave an elaborate account of the value of the Degree and said that all the Universities in the world had adopted it. In Great Britain almost all the Universities were conferring the Degree on eminent Science graduates.

Mr. A. Moffat seconded the Resolution.

Mr. Allen said that the conferring of the Degree on Science graduates would tend to discourage other graduates who had gone through the same course.

Lt.-Col. A. Miller proposed an amendment to refer the subject to a Committee consisting of 16 persons. Three more names were then added.

Dr. Simonsen seconded the amendment.

Mr. H. J. Allen remarked that Lt.-Col. Miller's Committee consisted mostly of scientists, and the Arts Faculty was not properly represented. He proposed that the Committee appointed should be partly of a representative character and partly of an individual character consisting of the Director of Public Instruction, Principals of Colleges, University Professors, and Fellows from the Faculties of Arts and Science. He suggested accordingly the addition of 19 other names to Lt.-Col. Miller's Committee. Mr. Allen's amendment was lost, and Lt.-Col. Miller's proposition was carried.

Extraordinary Meeting.

An Extraordinary Meeting was then held for the purpose of considering the question of raising the percentage of passes in the last Intermediate Examination (1916).

Mr. K. R. Guruswamy Aiyar moved that Mr. Justice Seshagiri Aiyar's proposition might be considered first by the meeting and that the propositions of Mr. P. Lakshminarasu and of himself might be taken up afterwards. He said that would be convenient for the proper discussion of the subject.

Mr. B. Hanumantha Row seconded this motion.

Rev. Mr. Macphail said that the House would like to hear some reason for the proposed change which was rather an awkward one. He did not know whether the resolutions of Mr. Justice Seshagiri Aiyar and Mr. Lakshminarasu were in order. That question he would submit for the decision of the chair. They should decide first the general principle as to what was desired by the Senate, viz., whether the percentage of passes was to be increased or not.

The Vice-Chancellor said that Mr. Guruswamy Aiyar's motion 'that the percentage of passes in the last Intermediate Examination be increased' was certainly open to several objections. In the first place the Senate had no power to do it consistently with Regulation 185 and there was no proposal before the Senate to pass any such regulation. The proposition of Mr. Guruswamy Aiyar, if passed, would be inconsistent with Regulation 185 and it could not be carried. It was open to that objection. It was also open to the objection that it was utterly indefinite and altogether impracticable. By how much the percentage of passes should be increased, he did not say. It was nothing more than a benevolent wish. The second and third propositions of which notice had been given as they were originally communicated would also be open to the objection that they were inconsistent with Regulation 185, but there were certain amendments which were calculated evidently to cure the defect and invite the Senate to pass a regulation of a temporary nature which might be sent up for approval and confirmation. The first proposition could not be really carried by the Senate and it would be perfectly futile to pass it. He would certainly advise the Senate to reject the first proposition. As to the second and third, having regard to the various amendments of which notice had been given, they would be in order.

Rev. Macphail:—Are they in order as they stand?

Vice-Chancellor:—It depends upon the amendments to these propositions.

Mr. J. H. Stone:—If these resolutions are not in order they cannot be discussed at all.

Vice-Chancellor:—The question is for a change in the order of business.

Mr. Stone:—It is necessary that the question whether these resolutions are in order should be asked first.

The motion for a change in the order of business was put to the meeting and carried.

Mr. Justice Seshagiri Aiyar asked leave under Regulations 40 and 41 to introduce a few words in his proposition which would thereby undergo a slight verbal alteration.

The Vice-Chancellor said that he could not move the motion and the amendment together. There was no motion before the House which he sought to amend.

Mr. Justice Seshagiri Aiyar before moving his resolution asked the Vice-Chancellor if his resolution was in order to which the Vice-Chancellor replied it was.

Mr. Justice Seshagiri Aiyar then moved the following proposition:—

(i) 'That this Meeting of the Senate considers it necessary that those candidates at the last Intermediate Examination of 1916 that obtained not less than 35 per cent. of the total number of marks be declared to have passed the said Intermediate Examination, provided they have obtained not less than 30 per cent. of the marks in English Language and Literature and not less than 25 per cent. of the marks in the subjects comprised in the Optional Groups, and that Regulation 185 should not be enforced in the case of the said candidates.'

(ii) 'That it be a recommendation to the Syndicate to pass such bye-laws as would enable those who may be thus declared to have passed the Intermediate Examination to prosecute their studies for the higher course without being required to produce attendance certificates for the full term.'

He said that since the resolution had been sent up by him there had been a special report of the Syndicate in which he figured as an educational expert. He did not pose as an expert in educational matters. He took it that the report was an answer to his motion and he would say a few words upon matters contained in the report. It did not follow that because there had been a larger number of candidates in 1916, therefore unfit candidates had been sent up. In 1911 the number of candidates that appeared for the Intermediate

Examination was 1427, in 1912 it was 1575, in 1913 it was 2427, in 1914 it was 2969, in 1915 it was 3749, and in 1916 it was 4722. Did that show that there had been an abnormal increase, quite out of proportion to the educational progress of the country? Later on it was said that there had been a fall in the number of High Schools as if it showed that there should be a fall in the number of candidates. The existing High Schools were altogether incapable of finding accommodation to the number of students that knocked at their doors. In some of those schools new classes had been opened. That was no reason for supposing that the number of candidates who sought entrance for the Intermediate Examination should have gone down. Then again the percentage of passes in 1911 was 41.4, in 1912 it was 43.5, in 1913 it was 33.4, in 1914, it was 39, in 1915 it was 27.5, in 1916 it was 26.3. Thus it was seen that the low water-mark was reached in 1916. As regards failure in English alone the percentage was 45.2 in 1911, 38.5 in 1912, 50.8 in 1913, 34.1 in 1914, 63.6 in 1915, and 65.8 in 1916. That showed that it was not because unfit candidates had been allowed to go up that there had been a large percentage in failures, but because the examination had been unduly severe and the marking had been unduly stringent.

In the report it was found that the failures were due to the fact that the colleges in the Presidency had been admitting students who ought not to have been admitted. He would say emphatically that some portions of the report should never have been circulated. There was a condemnation of the Principals, of the teachers and of students which ought not to have been allowed to go into the report without giving them an opportunity of explaining. Those Principals and teachers would be able to take care of themselves. He held no brief for them. If those were the answers which the Syndicate had given to his proposition, it should not find favour with the Senate. In one portion of the report it was said that there had been no undue raising of the standard and that judges who were competent professors were of opinion that the standards were not unduly high. To that he would say that judges equally competent were of opinion that the standard and marking had been unduly severe. Setting the opinion of these judges with the opinion of the persons who had drafted the report they would arrive at the following result. The number of passed candidates was going down year after year and the stringency of the English paper was so very great that there had been a failure of over 64 per cent. in that subject. As a result of such failures poor parents

were ruined and boys were morally and physically wrecks. - The University should not encourage such a state of things. He had indicated in his resolution how the Pass list should be revised. If his proposition was carried to its fullest extent, something like 50 per cent. of the candidates who went up for the examination would be allowed to pass. Was it a heinous sin to pass 50 per cent.?

Mr. Hunter:—No! No!

Mr. Justice Seshagiri Aiyar said that he was glad to hear that it was "no sin." Continuing he said that it was unfortunate that such a failure should recur year after year.

Mr. K. Ramanuja Chariar in seconding the Resolution said that in the Pachaiyappa's College admissions had been very careful. Still the results were not above the University average. If those boys were unfit for the University course, how was it that in English alone the percentage of failure had mounted higher and higher, while in other subjects there had not been the same rise in the failure? The increase in failure in English must be due to a particular cause for which there ought to be an explanation.

Mr. Justice Seshagiri Aiyar wanted to move a verbal amendment and the Vice-Chancellor said that he might do so with the permission of the Senate.

Mr. K. B. Guruswamy Aiyar then moved to insert after the first word "That" the words "In modification of Regulation 185 and others applicable to the matter, and as a Transitory Regulation for 1915 and 1916". He said that the proposition with those words added would be more complete as to what the mover of the Resolution meant. The motion was really in modification of the existing regulations. It was to give effect only for this year, leaving the question of permanent modification for further discussion.

Mr. C. P. Ramaswamy Aiyar in seconding the amendment said that he had to refer to the report of the Syndicate again and especially to what was said in para 3. That showed that the report was particularly anxious that popular agitation should not have any influence over the discussion in the Senate. Opinion was expressed on the previous day that such an influence would lead to disastrous results upon the standard set by the University. Why should it be presumed that a compilation in a newspaper was necessarily wrong. In Hyderabad 34 went up and four passed. There was something rotten either in the University or the Hyderabad centre or about the examiners. Kumbakonam College, a

Government College, which took particular care in the matter of admissions sent up 118 candidates for the Intermediate and only 23 passed. Taking the Pachaiyappa's College where admissions were very strict the results were bad. The S. P. G. College sent up 237, only 37 passed, Rajahmundry College sent up 101 and 15 passed, Madras Christian College sent up 178 and 57 passed, Pachaiyappa's College sent up 311 and 79 passed and the Presidency College sent up 93 and 60 passed. Undoubtedly if those figures meant anything they meant that the Presidency College was the only college under the control of the University which had been admitting students on proper basis.

Mr. Mark Hunter:—Kottayam!

Mr. Allen:—Women's College!

Mr. Ramaswamy Aiyar:—I take it that the candidates from the Women's College were passed out of a sense of chivalry.

Continuing he said that for the purpose of illustrating his thesis the figures quoted by him were sufficient. It was hinted in the report that the Principals of certain colleges had betrayed the trust reposed in them by admitting unfit students. It could not be said in the Senate that the responsible heads of institutions would have been guilty of such malpractices. The only other conclusion was that there was something wrong in the methods of examination and the methods of marking.

The Vice-Chancellor remarked that the language of the amendment was not quite apt to be embodied as a modification of Regulation 185.

Mr. Justice Seshagiri Aiyar accepted the amendment.

Mr. Statham opposed the spirit of the amendment and of the motion. He said that they should concentrate their attention on altering the future curriculum. The present curriculum was not the one best suited to the boys coming from the High Schools at present. The English standard was too high. The standard of Intermediate and B.A. in English was rather greater than that in any other University in the Empire. Failure was not due to lax admissions by Principals. Less than two per cent. of those who entered the colleges in 1914 got more than the minimum marks in English. It was neither the fault of the examiners nor of the Principals, but of the curriculum; and a University Committee ought to be appointed to revise the curriculum of the Intermediate. The standard of English was fictitiously high. The

object of the University was to make good citizens and cultured men. The English curriculum should be so altered as to make proper use of students going up for the University course. If the standard of English in the Intermediate was lowered, the standard of the B. A. also should be lowered, because both were inseparably bound up.

Dr. Simonsen in opposing the Resolution and the amendment said that he had been examining in Chemistry for the last three or four years and he found a marked deterioration in the results in the examination. The papers were infinitely worse down and the examiners were not more severe. They were almost the same examiners. The average mark per paper last year was 23 and this year it went down to 17. The standard answers in the books were most remarkably worse. The cause was not far to seek. Three years ago the number of students in Group (iii) was 1000 and in the present year it was 1600. Chemistry being an experimental science could be learnt only in laboratory. Accommodation was being provided in the Presidency for adequate teaching for 600 candidates. If more boys were allowed to appear, they could not pass their practical subject without going through a further course of practical training. They were allowed to appear without further training. Obviously they would fail and they would go on swelling the list of failures. If the laboratories were crowded, they could not have proper training. Chemistry examiners said that the answers showed that many of the candidates had had no laboratory training. Again the formulae given in the papers were obsolete. Obviously teachers were to blame, not the examiners, for the failure in chemistry. Students had to suffer for the faults of teachers. There was also another cause for the failure in chemistry. The recurring grants given to schools for the laboratory were insufficient. There was one college where the grant for running a laboratory was Rs. 36 and the grant was spent in a month. During the rest of the year there was no laboratory work. Chemistry was an expensive subject and if colleges could not spend money, they must give up the subject and not pretend to teach the subject. Students in that college did not get any practical training and there was no use of their appearing year after year for the examination on text-book knowledge. They should not try to lower the standard of examinations to pass some of the candidates. In the North of India they always wanted Madras men, because they attached some value to the Madras Degree. Did the Senate want to lose that estimation?

Mr. G. A. Natesan said that if the facts stated in the report of the Syndicate were taken as they were stated, they meant that the several gentlemen present in the Senate who were Principals and Professors of Colleges had misused the trust reposed in them and they ought to give an explanation why they misconducted themselves.

Mr. J. H. Stone asked if Mr. Natesan was in order in attributing motives to members of the Syndicate. Their motives were pure.

Mr. Natesan felt sorry that his remark led to those remarks from Mr. Stone. The Syndicate's report led to the only irresistible conclusion that the several persons who had been entrusted with the power of admitting boys had done their duty very badly. Referring to the remarks of Dr. Simonsen he said that the standard was unduly severe. A certain question was asked for the Intermediate candidates in 1916 and the same question in the same form was put for the M. A. candidates in 1913. [Here Mr. Natesan read the question.] There might be some explanation for it. But to him it was somewhat an insoluble problem. Except in the case of the Presidency College, the general result of the whole Presidency in the Intermediate Examination was a disaster. From the speech of Mr. Statham it was clear that the students were made to study far more than was necessary for them. Something should be done to give some sort of relief to students.

Rev. Macphail in opposing the amendment and the resolution said that more students passed the Intermediate Examination in 1916 than in any previous year either in the Intermediate or the old F.A. Examination—nearly 100 more passed. Those percentages were things which one might juggle with very easily. If the number of candidates fit to pass was the same and if the number of candidates that went up for the examination increased, the percentage of failures would be enormously increased. That was what happened on the present occasion and what had been happening during the last few years. He knew what was taking place in the colleges. He knew what used to happen at the Matriculation would happen at the Intermediate and they would say that the examination was badly conducted. This year a large number of students unfit for the present standard had failed, even though a larger number passed than ever before. Some gentlemen waxed eloquent over the Syndicate's report. Some members of the Senate had very short memories. An enormous amount of pressure was being used upon Principals of colleges to admit pupils into colleges owing to the abolition of the

Matriculation Examination. The Syndicate was trying to put an end to the laxity found in the reports of the School-Leaving Certificates. What used to happen in the Matriculation even now happened in the Intermediate. If Rickshaw coolies and others were admitted into classes and allowed to appear for the Examination, there would be a tremendous massacre of the innocents. Were the fit candidates plucked? The number that passed this year was larger than ever before. Since the introduction of the S.S.L.C. Scheme a large number of unfit boys were put into the Fifth and Sixth Forms. It was not fair to blame the examiners in the manner in which it had been done and encouraged by the Papers. The Press was full of slanders. Absolute lies were said in the public press about the action of the examiners. He held no brief for the English examiners. It was said that Mr. Hunter gave orders that not more than a certain percentage should pass. One of his old students came to him and complained to him that he failed because Mr. Mark Hunter gave him less marks. He showed him that Mr. Mark Hunter had given him more marks than a good many other examiners. It was said in the papers that Professors in the Presidency College held special classes for their examiners. He could not go about contradicting all the lies. He wanted to show that was the sort of agitation that was carried on. It was a disgrace to the people spreading those lies about the University. It was said that there was an attempt to keep down higher education in this country out of a political motive. What political motive had he?

Mr. Govindaraghava Aiyar asked if Rev. Macphail was in order.

Vice-Chancellor:—Go on.

Rev. Macphail continuing said that it had been openly said in a public meeting that the great failures took place, because Government wished that very few people should pass. Why should he pay attention to what Government said? His business was to pass people who were fit to pass.

Mr. Wallace said that the University must adjust itself to the conditions of the country. Some ideal standard could not be maintained for ever. They should submit to popular clamour and something should be done. They were not living in an ideal world.

Mr. Clarke observed that there was more sincerity in this debate than in any other debate since he joined the Senate. He was an Assistant Examiner in English. In composition papers for non-detailed study if the boys could not put

simple sentences together, he could not make them pass. If he passed any more candidates than those whom he thought fit, then it would be a great mistake.

Rev. Penn in opposing the Resolution said that they would be stultifying themselves if they attempted to lower the standard. They could not believe that the English Examiners were incompetent men. The men who sat on the English Board had been well-tested men. He was told that the averages of boys' marks in High Schools could be manipulated. If that was so, that diminished the value of the school average.

Mr. Moffat then made a speech which could not be heard at all. He said that they ought not to be satisfied with the very low percentage of passes and that they should do something to raise the percentage.

At this stage there was some conversation going on between some of the Fellows.

Mr. Justice Oldfield asked if that discussion on English was in order.

The Vice-Chancellor replied that he thought there was a private conversation going on, and asked Mr. Moffat to address the House.

Mr. Stone asked if Mr. Moffat was proposing a Committee.

Vice-Chancellor:—I am not aware of any proposal to form a Committee.

Mr. V. S. Srinivasa Sastri in supporting the resolution said that there was left in his mind a certain amount of uneasiness as to whether in that matter there was some consideration or other to disturb the value of their deliberations. It was said in the report that if the proposition was carried, the first consequence would be that a much larger number of students would be admitted to the B.A. class than first-grade colleges could adequately provide for. That was not the kind of argument which the Syndicate should bring forward. It was the question of efficiency they had got to consider, not whether additional candidates could be passed and whether there was sufficient room for them in the colleges. The Board appointed to select eligible candidates should not stop at passing the number of candidates that could find accommodation in colleges. That should not be the sort of argument advanced in a document produced to defend the examiners from charges made against them.

The document was issued in the name of the Syndicate and not in the name of the examiners. Again the Syndicate was largely composed of examiners. There was a rule that no member of

the Syndicate should be an examiner. He did not know that the rule still stood, perhaps it had been discarded. The document would receive far greater consideration from the Senate, if it had proceeded from an independent examining body. Now the Syndicate had to sit in judgment over themselves and had therefore to throw the blame on another body. The argument to prove the infallibility of examiners required a little closer examination. He had been an examiner in various capacities. He could not claim that the work of examiners was characterised by methodical precision. There might be two Assistant Examiners who had taken instructions from the same Examiner as to the way in which a particular answer should be valued. But he knew of examiners who knew that particular percentage of marks they had to work up to. One examiner put 42 in one paper and 27 on another so that he might get the required average and escape the scrutiny of the principal examiner. There would be nothing to show that he committed a capital blunder. There was a possibility of serious error in those matters. The matter required serious consideration at their hands. He should have been very glad to support the proposition for a Committee, if some body had proposed it.

Mr. Winckler said that the resolution did not go to the root of the matter. There were only two parties—candidates and examiners. They should settle once for all where the fault lay. The papers should be submitted to an entirely fresh body of examiners to settle the question whether the candidates this year were inferior to those of the previous years. It would be very expensive, but that would settle the question once for all. He had been teaching in this University since 1873 and he found no deterioration in the calibre of the candidates in recent years. On the other hand there was a slight improvement, especially in their capacity for hard work. But the vagaries of the examiners had gone far. Quoting the figures of passes and failures in his own school he said that personally he would be benefited if the proposition was carried. Still he was decidedly against it, because it did not go to the root of the matter. The scandals and defects lay deep seated and it was the business of the Senate to find them out.

The Hon. Rev. G. Pittendrigh said that he hoped that Mr. Justice Seshagiri Aiyar would withdraw his resolution.

Mr. Justice Seshagiri Aiyar said he was not going to withdraw it.

Rev. Pittendrigh continuing said that no self-respecting examiner would vote for the resolution. He listened to Mr. Clarke's speech with great interest. Several examiners and assistant examiners had made their remarks. They said they could not pass a larger number of candidates. He was prepared to accept the testimony of those gentlemen. When Mr. Hunter was in the control of Intermediate Examinations, the percentage of passes in English of the Intermediate Examination was 60 and 57. It might be that the course of studies was high. But what would not justify the resolution before them.

Mr. Hunter in opposing the resolution said that he had been connected with the English study for the last 25 years. He was last year Chairman of the Board of Examiners in English. There was no desire on the part of any examiner to fail candidates. He was told that the statements in the Syndicate's report were not true. Mr. Srinivasa Sastri took one sentence in the report about the passing of students in proportion to accommodation in colleges. It must be presumed that that was repeating a false charge brought against him.

Mr. Srinivasa Sastri:—I expressly disown that suggestion.

Mr. Hunter said that the examiners had not been treated as honourable men. They were condemned without any evidence being produced before them. The first years of the Intermediate Examination were normal years. It was hoped that the Intermediate was going to be a success. Unfortunately boys were admitted freely into Intermediate classes and the University wanted to resume control of the admissions to Intermediate classes. Nobody wanted to call principals names.

Mr. S. Krishnaswamy Aiyangar said that out of the 7000 and odd candidates those who failed in one subject and those who failed in two subjects might be considered fit for admission into the higher class.

Mr. Moffat moved for the appointment of a Committee to investigate the whole question.

Dr. Nair in seconding the resolution said that the resolution of Mr. Justice Seshagiri Aiyar was not the proper one. They must study what the disease itself was. The Syndicate's report stated that the S. S. L. C. certificates had had a disastrous result. It had been suggested that the Intermediate standard was too high. If that was so, failures must increase if the number of boys increased. The failures were appreciably in English. If it was due to deterioration, it must

be manifest in all branches of study. Why should it be manifest in English alone?

Mr. Mark Hunter:—Nobody said that.

(Cries of order! order!)

Dr. Nair continuing said that it was said that the failures were due to admissions of unfit candidates into Intermediate class and to want of teaching in classes. Examiners put it on to teaching and said that the teachers were not competent. It was also said on the other side that the examinations were not properly held. The examiners were strongly entrenched behind the Syndicate. Students, teachers and examiners, those three items should be thoroughly investigated. It was for the closer investigation of examiners that a Committee was required that evening. Even if the resolution of Mr. Seshagiri Aiyar was carried, it would come to nothing at all, as the causes which had brought about the unsatisfactory state of things would still continue. The system was unsatisfactory. They should get into some sort of satisfactory state of things. A radical change ought to be brought about and this should be made something like a University.

Mr. Justice Abdur Rahim said that the discussion was unfortunate and the matter was very simple. Four thousand and odd students went up for the Intermediate Examination and most of them studied in colleges under the direct supervision of the University, and failed in a foreign language, which state of things could not be satisfactory. This state of things would not be permitted in any other University. English was a difficult language to all of them and their children. To exact a very high standard from boys in English was cruel.

Mr. Moffat moved that a Committee be appointed to inquire into and report upon the causes of failure in the recent Intermediate Examination and to recommend to the Senate, if necessary, any measures to be adopted to obtain more satisfactory results. The Committee to consist of Messrs. Stone, Hunter, Skinner, Seshagiri Aiyar, Statham, Slater, Wallace, Ramunni Menon, K. Srinivasa Aiyangar, James, Miller, K. V. Rangaswami Aiyangar and Moffat (convener).

Mr. Natesan said that the amendment was not relevant to the question before the House and asked if it was in order.

Vice-Chancellor:—It is not an amendment. It is an independent proposition for the appointment of a Committee. It is in order.

Mr. Natesan:—If this is voted upon, will the original proposition also be voted upon?

Vice-Chancellor:—This is distinct from the original proposition. I put Mr. Moffat's proposition to vote.

Rev. Macphail:—Under Regulation 22 (8) either this motion for the appointment of a Committee must be dropped or if it is carried, the discussion of Mr. Justice Seshagiri Aiyar's resolution must be dropped. The whole business drops if the Committee's resolution is carried.

Mr. Allen:—We will be discussing two different questions at the same time. The amendment must be connected with the subject or it is not.

Mr. Guruswami Aiyar:—Is this motion in order at all?

Vice-Chancellor:—The matter before the House is with reference to failures in the Intermediate Examination. The original proposition is that a certain particular remedy be adopted with regard to the students who failed, viz., the percentage of passes should be increased. The motion of Mr. Moffat on the other hand deals with the same subject matter, viz., the recent failure. He proposes rather not to increase the number of passes but to inquire into the causes of failure and to suggest remedies. This does not entirely cover the ground of the original proposition. It is difficult to say that Mr. Moffat's motion for a Committee completely covers the ground dealt with in the original resolution.

Rev. Macphail:—If it does not cover the ground it has no right to appear at all.

Vice-Chancellor:—It is rather difficult to say that.

Rev. Macphail:—Do you rule that in order?

Vice-Chancellor:—Mr. Moffat's motion does not cover the whole matter before the House, but only considers part of the matter. On the whole it is in order. I will put Mr. Moffat's proposition to vote.

The Hon. Mr. S. Sreenivasa Aiyangar said that if that was put to vote the original proposition would be committed. The Committee would have to suggest remedies and the Senate could not again pass another Resolution with reference to the Intermediate Examination 1916.

Vice-Chancellor:—I do not know if it is intended to suggest any remedies with reference to past failures. I rather thought it was meant to regulate the future failures.

Mr. Stone:—We should be clear as to whether the original resolution is to go on, if this resolution for a Committee is passed. The practice of this Senate has been that if there is a proposal for a Committee to deal with the same subject as the

one before the Senate, the further consideration of the subject cannot go on. The appointment of a Committee puts an end to the discussion altogether.

Vice-Chancellor:—I understood that it was not meant to do anything with regard to students who failed in 1916, but only with regard to future failures.

The Vice-Chancellor then asked Mr. Moffat "Do you wish to deal with past failures?"

Mr. Moffat:—Oh, no! no! That is not my intention.

Mr. Allen:—Mr. Moffat cannot appoint a Committee with regard to future failures which would be a purely hypothetical question.

Vice-Chancellor:—I think Mr. Moffat's resolution is relevant and I will put it to vote.

Hon. Rev. Pittendrigh:—Do you rule that this will put an end to the discussion?

Mr. Stone:—Can we vote on this point without affecting the substantive resolution?

Vice-Chancellor:—I will tell you later on.

The motion for the Committee was carried by a majority of 44 against 14.

The Vice-Chancellor before declaring the meeting dissolved said "I am really inclined to think that this will conclude the debate."

The meeting terminated.

Reviews and Notices.

ELEMENTARY LESSONS IN ELECTRICITY AND MAGNETISM, BY S. P. THOMPSON. (MACMILLAN). 4s. 6d.

A new edition of this well-known publication has been brought out by Messrs. Macmillan and Co., which, while it preserves all its original features as a text-book, has been rendered more popular by the inclusion at suitable stages of a mass of practical information. The latter has necessitated an appreciable increase in its bulk by the addition of about 150 pages and we must be thankful to the publishers for not enhancing its price correspondingly.

The greatest additions are made to the latter part of the book. It has now been divided practically into three sections. The first discusses the theoretical aspect of electricity with occasional references to the older technical applications. The next section deals with the later and more important industrial applications which has made electricity so prominent a civilizer of

mankind. The last section treats of the recent romantic developments which began with the classic researches of Maxwell, Hertz and Lodge in the provinces of electric waves and discharge of electricity through gases.

The fact that the book, while it continues to be elementary in character, has embodied such varied information gives us an idea of the wonderful mastery of its author in the field in which he was engaged.

Among the special features of the book may be mentioned the brief historical accounts of the galaxy of the illustrious investigators, the fruits of whose patient labours we are reaping, and of their epoch-making discoveries. The absence of such information in other works professing to treat of the same subject detracts very much from their value. Again, the subject-matter of the book is often rendered easily comprehensible by numerous illustrations.

The last chapter of the book is on the electron theory of electricity, which unifies the modern conceptions of the constitution of matter. The vastness and the vagueness of the field have not prevented our illustrious author from giving a brief account so as to make his readers realise its importance and its possibilities. The attention of the reader is also drawn to the general trend of the various hypotheses entertained by modern physicists. That there is no general concurrency of views in this part of the subject is an admitted fact and hence it is but right that the author does not proceed very much beyond the initial stages.

The public in general, and the college students in particular, are thus in possession of a splendid treatise which with the minimum of mathematics gives them an insight into the vast and varied developments in electricity. Though the author has passed away from the scene of his activities, the continuance of his popularity is assured by the increased usefulness of this production.

EXPERIMENTAL ELECTRICITY AND MAGNETISM, BY M. FINN. (BELL). 4s. 6d.

This excellent book has been devised on a plan different from the orthodox one adopted by most writers on these subjects. It begins by a description of the familiar glow-lamp and proceeds by a series of logical steps to the more difficult parts of current electricity. The simple facts of magnetism are then introduced, which are followed again by the more abstract portions of current electricity. The study of terrestrial

magnetism and magnetic measurements then receives attention. After this, the more important industrial applications of electricity receive adequate treatment. It is at this stage that static electricity is taken up for discussion. The nature of the experiments selected and the apparatus suggested in this department of electricity are such that chances of failure in the performance of experiments are remote. In fact as the author states "it will be found that 'hydrophobia' has been practically eliminated from electro-statics, nearly all the experiments being successful in damp weather." We find thus that the author proceeds step by step from the subject of current electricity through magnetism to electro-statics. The change from one subject to another seems nowhere to be abrupt. The book ends by a concise account of electro-magnetic induction and thermo-electricity. As has been pointed out elsewhere, the order adopted in this book is not the conventional division into magnetism, electro-statics and current electricity. In the volumes at present generally used, the division of the subject into these three watertight compartments "fails to bring out their close connection and results (in the case of the intelligent student) in bewilderment and wonder why they should be treated in one and the same book." The author by adopting the logical order referred to has succeeded in keeping prominently before the student the unity of the three sections. In this he has been anticipated by F. W. Sanderson who in his *Electricity and Magnetism* has treated the subject in an analogous way. It must however be conceded that Finn's treatment seems to be the more logical of the two.

One of the important features of the book "is that an electric lighting supply (continuous current) is used almost exclusively as the source of current in the voltaic sections." The author justifies this step by various reasons, to which we can unhesitatingly agree. It cannot however be denied that the advocacy of the use of the electric mains has been carried too far: for there are only few institutions engaged in teaching science where a supply of electricity could be had and if his method is to be adopted, considerable financial stringency will be experienced by many institutions. Electricity is not so common in India or for that matter anywhere as to allow us to adopt the author's suggestion at an early date. Even if electricity could be had, a too exclusive use of the mains is not without its disadvantages. Pupils who use electric mains are aware only of the two poles (marked + and—).

The secret power within the + and— which produces the desired effect will be unfolded to them only at a rather advanced stage. Students should be thoroughly conversant with the use of the primary battery as its easy portability and other valuable features will always make it an important adjunct though not a substitute to the supply mains. Hence the book would have proved more beneficial if the author had bestowed more importance to the use of primary batteries.

A perusal of the present volume will convince any reader that the author has made out a strong case for the use of the electric mains in the earlier stages of scientific instruction. Besides, the author's method will be of immediate use to those who propose to undergo a technical course. We must also admit that the use of the primary battery is unsatisfactory in many exercises. For example, exercises on water voltameter, Joule's law, magnetic intensity at the centre of a circular coil of a few turns, the lines of force about a wire carrying a current, and in certain electro-magnetic motions, a supply of a strong current is necessary for success, which the primary battery cannot easily yield. The importance of these exercises can be gauged by the fact that many fundamental measurements in electricity are dependant upon them. Though the author has written this book chiefly for the use of beginners, the book with some omissions would be admirably suited as a text-book for the Intermediate standard of our University. The author's method if adopted is pregnant with possibilities. Our students would have a better and more thorough grasp of the subject and the want of co-ordination between the method of the laboratory and that of the technical would disappear. It will give our students a better insight into the manifold commercial applications of electricity and enable them to form a true estimate of its agency in the civilization of mankind. A supply of electricity is indispensable in the author's method. Most of our colleges have no electric installations, the introduction of which should be made a condition for affiliation. Considerations of cost ought not to prevent so much advantage which, as the book points out, accrues to our students.

This cheap publication does much credit to its publishers, who have already issued many other valuable works like A. Smith's *Introduction to Inorganic Chemistry*.

A TEXT-BOOK OF ELEMENTARY CHEMISTRY, BY A. SMITH. (BELL). 5s. net.

This distinguished author has brought out a British edition of this American volume a few months ago. It may be remarked at the very outset that in this treatise little attention has been paid to the conventional order of handling the subject, such as its division into metals and non-metals, where such order has been of no advantage to the student. Practical utility and cogency of treatment have been the tests applied by the author in selecting the subject-matter of this book.

The familiar examples, which the author chooses for consideration and from which he draws his conclusions, are expected to impress on the student the importance of a knowledge of chemistry in daily life and the interest naturally aroused in what has been usually misconstrued as a 'dry' subject. Each chapter ends in a set of exercises treated along with the subject-matter. This practice, unlike that of other authors who separate the contents from the exercises on them, induces the reader to solve the problems in continuation of the descriptive portion, without creating the tendency of postponing such solutions indefinitely. The author has, opportunely, brought into prominence some great continental chemists like Lomonossov whose great share in developing chemistry has been unjustly ignored by many writers. The elaborate precautions in the correct use of chemical terms and the lucidity of the explanations of such terms are characteristic of the author. The brief accounts of the discoveries of the elements with references to the lives of their discoverers must be counted as another feature of the book. The author has not omitted to point out the most modern applications of the many substances discussed in the book. One interesting example is the use of oxygen cylinders in submarine boats. The determination of molecular weights and atomic weights which ordinarily cause some confusion to the beginner has been introduced at a convenient stage. The explanations throughout have been written from the point of view of the novice. The experiments suggested for lecture demonstration or class work are such that they may be performed with the simplest types of apparatus. The use of electric mains in performing experiments has been encouraged wherever advisable. The author seems to be at his best when handling subjects like reversible reactions and hydrolysis. His notes on convenient gas

generators like oxone, hydrolyte, nitrides and carbides deserve special mention.

Though the book aims at being elementary, it does not exclude the ionic theory; for a real appreciation of the behaviour of substances in solution, the activity of metals, the strength of acids and such like, a knowledge of ionic theory is indispensable. The book is replete with warnings to the beginner at points where he is likely to be misled. A rather detailed study of the more important carbon compounds has been attempted so as to furnish the reader with some useful knowledge on petroleum, starch, plants, food, fuel, etc. Besides these, interesting information is imparted at proper stages on the manufacture of soap, glass, paper, on explosives and other substances of practical importance. The study of radium and radio-activity constitutes one of the interesting chapters in the book. The author rightly reserves to the last, the comparatively advanced portions of chemical theory as the Periodic classification. The inspiring portraits of eminent men of science like Ramsay will be an additional attraction.

The chief aim of the book, to put it in the author's own words "has been to provide a text suited to the needs of those who do not later continue the subject. In the minds of such readers, an interest in chemistry is best awakened by calling attention to materials and processes used in the household and in commerce. A purely descriptive treatment, however, is of temporary value only. When, on the other hand, the elements of science are presented in a somewhat rationalised form, they afford a basis for interpreting new phenomena and understanding new applications as they are met with in every day life, and the interest in the subject is thus not only awakened, but becomes permanent and fertile." If this represents the true aim of the School Final Course also, then the book seems to be well adapted for the optional Chemistry branch of the Fifth and Sixth Forms of our High Schools.

A LABORATORY OUTLINE OF ELEMENTARY CHEMISTRY, BY A. SMITH. (BELL). 2s. net.

The object of the author in preparing this outline has been to produce a companion volume to his *Text-book of Elementary Chemistry*. The book is expected to fulfil the purpose of being a genuine help to students in performing the simpler experiments dealt with in the text. The importance of practical work by

the students for a thorough understanding of the subject, has been recognised on all hands. The author's name is a guarantee to the excellence of this volume. Those interested in the progress of scientific education in India will therefore welcome this publication.

A MANUAL OF MECHANICS AND HEAT, BY GREGORY AND HADLEY. (MACMILLAN). 2s.

Prof. R. A. Gregory and Hadley have written this book to suit the standard of certain public examinations for which they find no single text-book really serviceable. The subject-matter is substantially the same as that of Parts I, II and III of their 'Class Books of Physics.' The book is rendered more advanced by the considerable additions to various sections, among which may be specially mentioned a reference to later types of Atwood's machine as the ribbon machine of Cussons. The apparatus manufactured by Messrs. G. Cussons of Manchester such as their Capstan blocks are perhaps not so well-known and the occasional references to them in the book will direct the attention of teachers of science to their utility. In the third part of the book devoted to Heat, the laws of fusion, evaporation, and boiling, the determination of heights by boiling points, the phenomenon of regelation and other useful information have been added. It is in the last chapter of this last Part, viz., on transference of heat that the greatest improvements have been effected. Considering the success already achieved by the authors in the field of book-writing, we may be confident that this volume will eminently satisfy the authors' expectations.

'THE FIRST YEAR OF THE GREAT WAR,' BY RICHARD WILSON, B.A., D.LITT. (W. R. CHAMBERS, LTD.) 1s. 6d.

This is a dainty little book of 256 pages dealing with the first phase of the great world-struggle of to-day, and intended mainly for the use of boys and girls of the British Empire. The story is told clearly and vividly and with no little verve and vivacity. The style of the book is easy, lucid and idiomatic and certainly, not beyond the comprehension of our High School boys. Even more advanced readers cannot, in our opinion, be any the worse for a perusal of the charming little volume.

The book consists of 6 parts. Part I deals with a great many preliminary matters so very essential

for a proper understanding of the war. The historic background of the war has been clearly thrown on the canvas. The marvellous development of Germany in modern times, her lack of suitable colonies and sea-board, her ambition for 'a place in the sun,' her fretfulness and impatience, have all been well explained. Some account has also been given of Belgium as a neutral State and of Prussia's part in her neutralisation. The tragedy of Sarajevo is then dealt with and the fearful train of events following rapidly from it.

Part II deals with the course of events on the Western front during the first year. An interesting account has been given of the muster of the British Empire and of India's magnificent rally. The heroic defence of Liege, the German advance through Belgium, the battles of Mons and Charleroi, the retreat of the English from Mons to the Marne, the advance of the Germans right up to the gates of Paris, their discomfiture at the Marne and retreat to the Aisne, the siege and capture of Antwerp, the furious German 'dash for Calais' repeatedly made, the character and mode of trench-fighting—all these have been beautifully told and read like a romance in the author's little book. Instead of being a merely dry narration of facts, it must be said to the credit of the book, that its pages have frequently been lit up by lively descriptions, fine extracts from reports, thrilling accounts of heroic deeds, etc.

Part III is concerned with the fighting on the sea. The story of the plucky 'Emden' and its raids has not been forgotten. The battle of Heligoland, the battle of Coronel, the battle of the Falkland Isles, the German naval raids on the British coast have all been described. An account has been given too of the manifold services rendered by the British Navy in connection with the war. It must however be observed that the author has generally shown himself somewhat unduly sparing of criticism as regards the extremely savage methods of warfare often followed by the Germans on land and sea and that, what is generally known as German 'fightfulness' ought to have been explained and exposed by him at somewhat greater length and in greater detail.

Part IV is taken up with the events on the Eastern theatre. The flow and ebb of the Russian advance in East Prussia and Galicia and of the German advance in Russian Poland have all been graphically told. The story is continued down to the second attack on Warsaw and its capture, by the Germans.

In Part V an account has been given of the war with Turkey. The author's thrilling descriptions

of English naval operations in the Dardenelles and of the wonderful gallantry and endurance of Australian and other troops in Gallipoli in the face of fearful difficulties make romantic reading.

Part VI mostly deals with theatres other than European. Accounts have been given of the course of the war in South Africa, Asia, etc. The intervention of Italy in the war and the causes of her intervention have also been dealt with.

Three maps and a great many illustrations have been given and they must serve no little to enhance the usefulness of this little book.

READINGS FROM INDIAN HISTORY FOR BOYS AND GIRLS, BY ETHEL R. SYKES, C.L.S.I. : LONDON. 2s. net.

The idea with which this book is written is a commendable one, as it aims at giving the student some notion of the original authorities on which the history of the country is based. The style is charming and attractive and the illustrations very handsome. The present volume is the first part and takes the student from the Vedic times to the coming of the English and is in 33 chapters; of which 16 belong to the Hindu period. The proportion is satisfactory, and the manner of treatment interesting. The Hindu period, however, is full of inaccuracies and ought to be revised. Sanskrit, for example, is said to be derived from Prakrit; Vedangas are called parts of the Vedas; Chanakya helped Asoka to win the throne! Panini was a historian! (The latter is moreover confounded with Patanjali!) The *Gita* contains the life and stories of Krishna! Sankaracharya is not mentioned at all, while Ramanuja wrote the *Ramayana* in Sanskrit!! The most important writings in Telugu were in the 14th century! Kalidasa wrote several stories in prose! Really the author shows a sad ignorance of the history of the Hindu period and makes serious blunders. Still, the book is a highly readable and interesting one and may be placed, after a proper scrutiny on the part of the teacher, in the hands of readers and students.

TAYLOR HIGH SCHOOL MAGAZINE, NARSAPUR. VOL. I, No. 1. ANNUAL SUBSCRIPTION RE. 1.

The 'Old Boys' of this school which has been in existence for the last 63 years ought to be congratulated on their enterprise in starting this Journal. The occasion of the recent Diamond Jubilee of the Institution proved a fitting opportunity for launching it and the editors hope

in it not only to record the doings of the school in all its various phases of activity but also to serve "as a connecting link between the students, past and present, between the parents and the school staff, and between the public and management." The contents of the first number which is before us bears out this ideal. It gives an account of the Diamond Jubilee celebration, including the able speech of Rao Bahadur A. C. Pranatartihara Aiyar on the occasion. One good feature of the Magazine is its Telugu section where a history of the school is given, besides a poem on the happy celebration of the Jubilee Day. We wish the Magazine success.

THE JOURNAL OF THE KUMBakonam COLLEGE LITERARY SOCIETY.

The Literary Society of the Kumbakonam College has shewn a highly commendable spirit in bringing this Journal into existence. It has been started under the best auspices possible, with the best wishes of His Excellency the Governor and the services of three of the College Lecturers as editors, and is therefore bound to be a success. The articles of the first number are of a high order and promise, in case the present enthusiasm of the editorial staff lasts, a good and prosperous future. Among these articles should be noted those on Rabindranath Tagore by A. A., and Thomas Hardy by A. R. A large portion of the Journal is taken up with the College notes, the College athletics, the proceedings of the Old Boys' Association, etc. We sincerely hope that the remarkable energy which the College has displayed last year will continue with time and ensure ever-growing success and prosperity to this Journal.

PUBLICATIONS RECEIVED.

The Story of Lord Roberts, by Arthur O. Cooke. London: Milford. 6d.

Oxford Reformed Readers for India, by R. W. Ross, B. A. Book III. London: Milford. 10 as.

Colloquial English, Part I, by Harold E. Palmer. Cambridge: Heffer. 2s. net.

Discovery of the Spirit and Service of Science, by R. A. Gregory. London: Macmillan. 5s. net.

Picture Composition, by J. Nelson Fraser, M.A.
Pupil's Book, 8 as.; Teachers' Book, 12 as.
Bombay: Cooper.

Helen Keller, The Blind, Deaf and Dumb Student. Madras: C. L. S. 1 anna.

The Story of Stanley, the African Explorer. Madras: C. L. S. 1 anna.

O. L. S. Telugu Second Reader. Madras: C. L. S. 2½ as.

Snakes, Crocodiles and other Reptiles. Madras: C. L. S. 1 anna.

The Prophetic Gospel, by L. P. Larsen. Madras: C. L. S. 3 as.

Tit-Bits of English Poetry for use in Schools, by D. S. Venkataratnam, B.A., Zemindar's High School, Kattupur. Part I, 5 as., Part II, 6 as., Part III, 6 as.

Geographical Exercise Books—V. Asia and Australasia, by B. C. Wallis, B.Sc. London: Macmillan. 7d.

Outlines of Jainism, by Jagminder Lal Jaini, M.A. Cambridge University Press. 4s. net.

Selections from the Poems of William Wordsworth, edited by S. G. Dunn, M.A. Bombay: Oxford University Press. Re. 1.

Selections from the Poems of S. T. Coleridge, edited by S. G. Dunn, M.A. Bombay: Oxford University Press. Re. 1.

Introduction and Notes to Essays on Addison, by W. E. Hoare, M.A. Bombay: Oxford University Press. 9 as.

Matthew Arnold's Sohrab and Rustum, by T. Outtherton Jones, B.A. Bombay: Oxford University Press. 8 as.

Indian Educational Notes.

The Taylor High School Day Celebration.—The Taylor High School Day was celebrated on Saturday, the 1st instant, under the presidency of M.R.Ry. Peddada Sambasiva Rao Pantulu Garu, B.A., B.L., High Court Vakil, Ellore, and a distinguished alumnus of the school. The proceedings commenced at 5.45 A.M. with badminton and football matches in the Basivireddi Playing Fields, and the manner in which students, past and present, freely mixed with one another, spoke highly of their love for their *Alma Mater*. After coffee was served at about 8 A.M., the business commenced with M.R.Ry. A. Jayarama Rao Pantulu Garu, B.A., L.T., the President of the Old Boys' Association, in the chair. At the outset it was unanimously resolved that "this Association places on record its deep sorrow at the untimely death of Lord Kitchener." Certain amendments in the rules of the Old Boys' Association were then proposed and duly carried. The absence of a representative of the old boys of the school on the School Managing Committee was keenly felt by every old boy who considered it his duty and privilege to take part in the affairs of his mother institution. It was also felt in fairness to the members of the staff that their cause be represented by a member elected by themselves. These two resolutions which affect the constitution of the Committee to some extent but are largely conducive to the well-being of the institution were then proposed and duly carried.

The school building requires extension and want of a suitable accommodation is badly felt. The Old Boys present pledged themselves in a way to assist the School Committee in raising funds for the construction of these buildings.

It is gratifying to note that the President of the School Day, M.R.Ry. Peddada Sambasiva Rao Garu offered the award of a gold medal of Rs. 20 annually to the best student of the School Final class in the school, and it is proof positive of his large heartedness to the students and love for his *Alma Mater*. Among other items of the morning's programme may be mentioned conversations and indoor games.

The evening proceedings commenced at 3 o'clock when the gentlemen as well as the students present were treated to refreshments on a lavish scale. The public meeting commenced with prayer and after the President was duly elected, the Secretary read the annual report of the Old Boys' Association for the past year. The following toasts were proposed and duly responded to: "The King-Emperor," "Our Mother Country," "Alma-Mater," "Old Boys," etc.

We are proud to mention that as a result of training pupils in public speaking, we had an excellent speech delivered by Mr. Kompella Venkata Rao, one of our best students, in response to the toast on "Our young friends."

After thanking the old boys for having invited him to preside on the occasion, and after a brief reference to the demise of Mr. Atchanta Subba Ramayya, a distinguished past student of the school, the President spoke as follows:—

This grand old institution has always been in the forefront of the ranks of high schools in the Presidency on account of the success which it has achieved from the very beginning of its career. Our school has been a great factor in moulding the character of its alumni and giving them the necessary training to enable them to become useful citizens of the country. I am glad to learn that Mr. Jayarama Rao, the present Headmaster, is trying to keep up the traditions of the school, has even surpassed his predecessors in instilling into the minds of students noble and lofty principles which stand them in good stead in their after life. It would not be out of place in this connection to allude to the meritorious services rendered to this institution by such distinguished educationists as Mr. A. C. Pranatharthihara Aiyar and others who were among its headmasters. I hope the school will continue to maintain the prestige and the good name which it has won.

I am glad that we had succeeded in starting the Old Boys' Association which gives us all an opportunity of meeting each other at least once a year to exchange our ideas and thereby strengthening the silken bonds of love which knit us together. I hope we will keep up this enthusiasm and fervour even in the future without allowing the Association to wither away and vanish like a mushroom. We must strain every nerve to keep the Association alive and make it a most useful adjunct to the institution. It is only then that we can hope to bring about the consummation of our devout wish that a representative of our Association should sit in the Managing Committee of the school and take part in its deliberations. We must be really

proud that our school is managed on the best lines and the instruction imparted therein is of the best quality and that the facilities afforded for developing the physique of the students deserve all praise.

I understand that the school buildings require considerable extension in view of the innovations that have been recently introduced by the University in the curricula of science studies. I am also told that the present Students' Hostel stands in need of a local habitation. I would therefore exhort one and all of the old students to remove these desiderata by co-operating with each other in making both the objects accomplished facts in the near future.

I feel I will be wanting in my duty if, before winding up my address I do not refer to the unbounded enthusiasm which the present Headmaster is evincing in improving the School Debating Society and making it a good training ground for our young stars to equip themselves with the necessary attainments which will go a long way in making them useful citizens of the country. In conclusion I request all my friends who are guardian students of this school to acquit themselves, in such a manner, in whatever walk of life they chance to be, as would bring credit to the *Alma Mater* to which they owe their present positions in life.

The meeting came to a close with a vote of thanks to the President proposed by the Headmaster of the school.

We are asked to publish the following:—

N. T. P. Union—Andhra Ladies' Competitive Examination.—The following candidates came on successful in the first class:—

1. Srimati Pulavarti Nagaratnamma Gar.
2. " Bhupatiraju Suriah Gar.
3. " Kalidindi Lakshmi Narasiah Gar.
4. " Penumatche Lakshmi Narasiah Gar.
5. " Saji Shanamma Gar.
6. " Mediraju Seshamma Gar.

SOCIAL LEGISLATION UNDER HINDU GOVERNMENTS

BY

PROF. S. KRISHNASWAMI AIYANGAR, M.A.

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The Educational Review.

The subjects that could not be reached at the rather stormy meeting of the Madras University Senate* in March last were taken up for consideration in a more noisy meeting held on the 21st and 22nd of July. The meeting was presided over by the newly-appointed Vice-Chancellor, The Hon'ble Sir P. S. Sivaswami Aiyer. Judging from the report of the meeting, we feel bound to remark that the general behaviour of the Fellows at this first meeting of the new Vice-Chancellor reminds us of that of a class of students when a new master takes charge of the class. The Vice-Chancellor was subjected to a constant fire of technical objections, points of order, verbal amendments, etc., and in this matter the educationists and European Fellows, who generally accuse the Lawyer Fellows of resorting to such expedients, outdid the latter and behaved as if all their lives they lived in an atmosphere of technical objections. To some extent this is inevitable under the circumstances of Sir Sivaswami Iyer's appointment and except in one important matter which will be discussed later, the Vice-Chancellor came through the ordeal very well. He kept his head cool throughout the distractions so sedulously provided for him and guided the deliberations of the Senate very well.

The first resolution taken up was the double-handled one proposed by Mr. A. Subrahmanya Iyer involving the consideration of the question of restoring the

period of the Law Course to the old one of two years and the institution of two Law examinations every year. Mr. Davies, Principal of the Law College, had set his heart on a three years' Law course, and urged all imaginable arguments in its favour. One funny plea he urged was practically to this effect—that a three years' course would make a B.L. a ready-made instrument capable of immediately earning large fees, but a two years' course would not do so. The illusions of teachers with regard to their powers of fattening the young mind with the food of knowledge are hard to beat. It was well brought out in the debate on this question that in the name of legal culture, a number of useless things are taught in the Law College to the legal practitioners in embryo that attend the College. How, in the name of commonsense, we ask, can a few more lectures in these subjects, and for the matter of that, in the few subjects that are of real use to the practitioner, turn a Law student, at one stroke of the magic wand, into an efficient money-making machine! It is high time law-teachers, as well as other teachers, recognized the fact that the object of teaching is not to fill the mind with knowledge common or uncommon, useful or useless but to train the man to be able to know where to get the knowledge relevant to the matter in hand and how to use it in the best possible way. The arguments of the three-year-law-course-wallahs remind us the old world geography teachers who argued

that the more gazetteer and statistical information the boy carried in his small head the more educated he is.

A curious phenomenon was noticed in the course of the debate and the various votings on this question of a two years' Law course. Practically every one in the Senate was for the proposal to hold the Law examinations twice a year. A large majority approved of the proposal to reduce the law course to a two years' one. The Indian Fellows supported the proposal, from the feeling that between two sets of faddists claiming pre-eminence to particular studies, the interests of students were sacrificed. The custodians of the Honours courses as represented by Mr. Mark Hunter preferred the two years' course because "considerable harm might be done to the Arts course by the Law course of three years." When the matter came up for a final vote, Mr. Davies spoke against it and made pointed appeals in which the expressions "European side of the House" and "Indian side of the House" were used freely, and the phrase, specially calculated to secure the votes of the "European side of the House," namely, "lowering the standard" was repeated and the result was the motion was carried by 34 against 33 votes. The Fellows against Mr. Subrahmanya Iyer's proposal rose from 13 at one stage of the discussion to 33 at the final stage. What is the moral of all this?

The next important question that the Senate debated on was the one of increasing the strength of the Syndicate proposed by the Senate. One should think that

the proposal was in itself harmless and one could not, by any conceivable ingenuity, drag "the European side of the House" vs. "the Indian side of the House" into it. But as a matter of fact, it did become a racial question; this we much regret. In our opinion, Mr. Natesan took hold of the wrong end of the stick when he started advocating the increase of the strength of the Syndicate. The question he missed raising was the only one that really mattered, and that is the representation of the mofussil Colleges in the Syndicate. For want of this representation much injury is being dealt to the Colleges outside Madras and much bad blood is being generated. In almost every University question the interests of the Madras Colleges and the mofussil Colleges clash and now as Father Quinn neatly put it "the Madras members in the Syndicate should know that colleges do exist in the mofussil." We hope that at the next meeting of the Senate, some Fellow will propose that one member at least of the Syndicate should be elected from the members of the staff of mofussil First-grade Colleges and one of mofussil Second-grade Colleges that happen to be Fellows. This is a very urgent measure of reform and we hope it will be taken up at the October meeting of the Senate.

The Senate on the 22nd instant proceeded to consider the question of the work done by the Professor of Comparative Philology.

ogy. We regret that the Senate discussed this question at all and that it passed a resolution calling for a report of the work done by him. We agree with Mr. Mark Hunter in thinking that it is "invidious to call for a report from him while it was not so called from others." But the Syndicate has to thank itself for the fact that the Fellows voted for this "unfair" proposition for the Syndicate has shrouded in unnecessary secrecy the work done by the Professor of Comparative Philology and the Readers in Dravidian Philology. Nor has the Professor delivered any striking course of lectures or published original work or translations of other people's investigations in the sphere of work of which he has specialist knowledge. Possibly there is not enough field or facilities for original work in Sanskrit Philology but he can at least give us translations of German and French savants; and even this work will go a long way to justify his appointment.

This very important question came to the Senate in the most unobtrusive way. It started with Mr. Fyson's almost childish proposal to add the words B.Sc. to the word B.A. wherever it occurred in the Regulations. This led to Lieut.-Col. Miller proposing to refer the question of instituting a B.Sc. degree to a committee of scientific men. Mr. Allen then proposed to swamp the Committee with a number of literary men; in doing this, Mr. Allen represent-

ed the tradition of Dr. Bourne's days. When the University was reconstituted in accordance with Lord Curzon's Indian Universities Act, an attempt was made to institute Science degrees in this University as in the University of Calcutta. But Dr. Bourne, though himself a scientific man, set his face against it and even attempted to make the B.A. degree a worthless degree in "general culture." The present B.A. degree with its impossible standard of attainment in English both at the Intermediate stage and at the final B.A. stage is the result of a compromise between the few that wanted Science degrees and the many that followed Dr. Bourne in demanding degrees in nominal culture. We are glad that Lieut.-Col. Miller has succeeded in getting his committee and we hope that at least in the future, the possibility of acquiring real modern culture as opposed to a scrappy knowledge of Gothic, Ancient History, and Metaphysics, will be created in the Madras University. Almost every issue of *Nature*, since the war began, contains a passionate appeal to English people to provide in England widespread scientific education in place of the fashionable literary culture. How much more is scientific training wanted in India, where for thousands of years literary culture and literary culture alone has been available to those that seek education. Though the B.Sc. Degree has come in so unostentatiously, we think it is the most momentous change that the Senate has ever assisted to bring about.

Strange were the methods resorted to by a certain section of the Senate to defeat the proposal to do some measure of justice to the candidates for the late Intermediate Examination, the victims of the prejudices of Examiners and strange was the way in which this attempt succeeded ultimately. We have deliberately used the phrase "prejudices of examiners," for the prejudices are apparent in the Syndicate's apologia circulated* to the Fellows before the meeting. The examiners, as well as members of the Syndicate, it is evident, believe that because the numbers attending college have increased, therefore Principals must have admitted unfit students and therefore they must fail at examinations. They believe that because the classes have swelled in size, Principals cannot have made suitable arrangements for tutorial work. The Principals, themselves, swear that they have been careful in admitting pupils and they have made proper arrangements for tutorial work. But so long as the Syndicate and its examiners are determined not to believe Principals but prefer to believe "other authorities" (God knows who these other authorities are), the present bad results are bound to recur. But whatever be the truth about this question, we cannot commend the action of the Fellows in so distracting the Vice-Chancellor with points of order, amendments, cross-amendments that in desper-

ation he involuntarily helped to kill the Hon'ble Mr. Seshagiri Iyer's proposal by giving contradictory decisions on the question of the effect of Mr. Moffat's Committee. The Committee, we hope, will take up the question in earnest and we propose to help the Committee by giving our own analysis of the causes of the Intermediate failure in our next issue.

The Mysore University Bill has been passed and we wish it a long earnest of usefulness. One special characteristic of the University is that it represents a "new type of University" of which Colleges form an integral part. In the British Indian Universities the Colleges are not directly under the University. The Vice-Chancellor under our scheme will have duties and responsibilities towards the Senate and the Council on the one side and towards Government on the other. It is our opinion that in recent days far too much discussion has taken place on the supposed advantages of the old type of Teaching University. We consider it does not much matter whether the University controls colleges or colleges control Universities. The thing that really matters is that the right kind of men take part in teaching and when this is secured, the University is bound to be a centre of true culture. At present the University begins with two Faculties and it is hoped five more will gradually follow and we echo the wish of the Dewan that his appeal for endow-

* Reprinted in full elsewhere in this issue.

ments and gifts will receive the hearty support of the public and the University will develop its various Faculties as soon as possible.

We congratulate Mr. P. Seshadri, Principal M.A., Principal of Salem P. Seshadri, M.A. College, on his appointment as Vice-Principal of the Central Hindu College, Benares. Mr. Seshadri is one of the most distinguished alumni of the Madras University and an enthusiastic student of English literature and an authority in literary criticism, as our columns for the last many years will testify. We hope the proposed Hindu University of Benares into whose service he will be ultimately drafted will benefit by securing the services of an English scholar of Mr. Seshadri's attainments and culture. He will bring to his work in the proposed denominational University a balance of mind that will be highly valuable in its organization.

PARK TOWN, MADRAS,
10th June 1916.

To
THE HEAD MASTERS OF HIGH SCHOOLS,
SIR,

You are aware that the Council of Indian Education at Madras have been endeavouring during the last ten years to bring about a change in the system of imparting instruction in Secondary Schools by making the Vernaculars the media of instruction in non-language subjects. Public opinion, in favour of this

change has recently increased in volume and intensity to such an extent as to make it imperative for us to approach Government to give immediate effect to the change. The present regulations require that all non-language subjects should be taught in the Vernacular up to the Third Form. It is proposed to ask Government to extend these regulations to the High School classes as well; in other words, Elementary Science, Arithmetic, History and Geography should be taught in the Vernaculars in the 4th, 5th and 6th Forms. Will you kindly state whether in your opinion this reform can be introduced in your school immediately; or, is it your opinion that the change should be first introduced into the 4th Form and then should be gradually extended to the 5th and 6th Forms? It is believed that the non-language subjects mentioned above are already taught in the Vernacular in the 3rd Form of your school. Can your staff undertake to teach them in the Vernacular in the 4th Form immediately without waiting for suitable text-books being published in those subjects?

The Council of Indian Education propose to award an honorarium for the best High School text-book in the Vernacular in each of the non-language subjects. Will you or any of your staff in your school kindly undertake to prepare a suitable text-book in one or more of the non-language subjects?

As it is advisable to be fortified with your valuable support to the scheme before we approach the Government on the subject, I request that you will favour the Council with your opinion as early as possible.

Yours truly,
S. RAJAGOPALACHARI,
Joint Secretary to the Council of
Indian Education, Madras.

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ENGLISH SOUNDS AND SPELLINGS.

I

The following account of English Sounds and Spellings is based upon a course of lectures on English Pronunciation intended merely for the benefit of Secondary School teachers and is therefore subject to many obvious limitations. However important and interesting fulness of technical details may be to the student of language, the ordinary teacher is more frightened than benefited by it. What he wants are a few simple and definite rules to guide him and a broad outline and a workable knowledge of the subject. He does not require a fulsome enumeration of local peculiarities and dialectal varieties, nor is he very much interested in the advanced investigations of Experimental Phonetics. In other words, he does not aim at being an expert either in theory or in practice, but he looks forward to being a practical teacher who can communicate to his pupils the knowledge of the subject he has assimilated. To him the theory of explosives, for instance, or that about the initial or final voiced fricatives are of

minor importance. He does not care very much to trouble himself with experiments like Myer's to find out the lengths of sounds, expressed in hundredths of seconds, nor does he want to overburden himself with a history of the sound developments from the earliest times to the present day. He, therefore, finds books like Jespersen's *Modern English Grammar* (Part I), or Sweet's *History of English Sounds*, practically of no use to him simply because of the mass of details contained in them. There are, of course, more elementary text-books like Mr. Jones's, or Mr. Lloyd's, or Mr. Rippmann's, but since no two doctors generally agree on certain points, a good deal of confusion is caused. The aim in the following account has been to present the minimum amount of information that a teacher will find use for in his classroom. Our consideration, therefore, cannot be free from personal predilections and probably dogmatism in some particulars.

Perhaps a word is necessary with regard to the title that has been chosen for our subject. We commonly speak of teaching and learning the English language as if it were really one, but as a

matter of fact, we have to learn two almost different languages—one of the eye and the other of the ear. English is unique in this respect. We cannot conceive of any other language (not excepting French) where the divergence between spelling and pronunciation is so great—so absurdly great. English Spelling is anything but a guidance to English Pronunciation. It is a bewildering maze without a plan. It is a repository of monstrosities. It is a veritable limb of anomalies, inconsistencies, irregularities and eccentricities. But for us in India who are learning this tongue the danger is not so much in the spelling as in the pronunciation. It is the written word that we come in contact with more often than the spoken word and it is consequently the written word that leaves a more lasting impression in our minds. It is therefore necessary to learn simultaneously the spelling and the pronunciation of every new word. And this is the plan we shall adopt. Under each sound we shall consider the various spellings of the same sound.

II

"Fashion some fantastic letters with grotesque tails or noses; turn some of the existing letters upside down; strew colons up and down among the letters composing a word; and delete the rules about the uses of capital letters. If you have done all these, you have learnt *Phonetics*." This was what an old and extremely conservative teacher said when he came out of the Presidency College after having attended the last of the University lectures delivered by Mr. Daniel Jones in December, 1912. We do not believe that he meant to be taken seriously, for we happen to know that he was one of the most intelligent and earnest of teachers. We refer to it because this is almost exactly the opinion held by our non-phonetic friends. They seem to be afraid of anything that is new for the simple reason that it is new. It is not seldom that these define "Phonetics" as a subject which interests but lunatics—at any rate, a very witty hint at some popular etymology con-

necting "Phonetics" and "Fanatics" is thrown out. Sober critics who are less disposed to be merry at the expense of the phonetician ask this question, "Have I not done without it?" Lawyers, doctors and business-men interrogate with one voice, "Why do you bother us with this new fad?" Teachers urge: "Why do you add to the curriculum which is already overburdened? This may prove to be the proverbial last straw which breaks the camel's back." We shall now answer these questions one by one.

It may appear at first sight that the question, "Have I not done without it?," is very plausible. But we may easily answer it by counter questions. Have not our ancestors done well enough without making use of steam and electricity? Have they not fought their battles without machine guns, submarines, and air ships? Have they not carried on their manufactures without plants and machinery? Have they not observed well enough without microscopes and telescopes? But steam and electricity have been utilized for annulling distances and rendering communication and locomotion easy. The latest inventions have been availed of by the belligerents to fight their battles in air, or on land or sea. The newest types of plants and machinery have been set up by manufacturers and are turning out articles of usefulness with a swiftness and thoroughness which are some of the wonders of the growth of modern science. The bounds of our knowledge of things in, around and about us have been considerably widened by the use of powerful microscopes and telescopes and thousand and one other very delicate instruments. True it is that lawyers, doctors, business-men and teachers have got on well without learning "Phonetics," but they have not got on half so well as they could have done, had they studied the subject. Of special interest is the subject to us teachers and to lawyers who have to do much more talking work than others.

Let us, however, examine the statement a little more closely. It is true that many Indians have

acquired a proficiency in English, which is certainly not to be overlooked or undervalued. But every one of them has been studying the question of pronunciation with as much diligence as, but unfortunately in a less systematic way than, the phonetic student of the present day. Every one of them has made constant use of dictionaries and supplemented it by assiduously attending to the pronunciation of the Englishmen whom they have happened to come in contact with. Perhaps almost at every moment he has had to meet with surprises and consequently to correct himself. It is not every man that can have the time, even if he has the patience and diligence, to learn to forget and re-learn almost every word in English. And very often it happens that the mispronunciation clings to him throughout life, or peeps in now and then in spite of his best efforts. For instance, Tamilians are apt to pronounce unconsciously "louje" and "folouje", instead of "loue" and "foloue" with a j sound between ou and e, in spite of the fact that the correct pronunciation is known. People in the South Canara District invariably say "Shakuntala," "Shiva" and "Shankar," though they may be aware of the fact that the first consonantal sound in each case is not Skt. श, but Skt. श. It is to help every student to learn the right pronunciation once and for all, when the word itself is first introduced, that the study of Phonetics is recommended.

It may be stated here then that "Phonetics" is anything but a "fad." It is a labour-saving instrument in the hands of the learner. It is useful not only to the linguistic student, but to the student of modern languages. It trains the philologist to understand precisely the changes he has to note. It is the foundation of philology. It is equally invaluable to the student of foreign languages, because it enables him to discriminate the various sounds he meets with in the languages he is studying. If it is necessary, as has been well recognised throughout Europe, even in the case of the mother-tongue, much more so is it in the case of foreign languages. We believe that,

if a foreign language is worth learning, it is worth the trouble that has to be taken to talk it correctly. And Phonetic training enables us to obtain maximum result with minimum effort.

Now can we be sure that the ordinary non-phonetic student has learnt the right sounds even with the constant use of dictionaries and assiduously listening to the conversation of Englishmen? Can he learn them by imitation alone? If we study the structure and formation of the vocal organs and the way in which the various sounds are produced, we find that the number of sounds that can be produced is, from the theoretical point of view, unlimited. The vocal organs may be made to assume a countless number of positions, thus giving rise to an equally countless number of sounds. But in practice we find that the number of sounds in any one language ranges between thirty and fifty. It must, however, be noticed that the same sounds need not necessarily be common to any two languages. Some languages, for instance, have a decided partiality for consonants and develop them accordingly. Some other languages, on the other hand, favour the development of a more or less complicated vowel system. The English language, for instance, has developed six different sounds in [or near the open position: æ (in 'cat'), a (in 'kite' or 'cow'), ɑ: (in 'cart') ɔ (in 'cot'), ɔ: (in 'caught' or 'court') and ʌ (in 'cut'). In Tamil, on the other hand, we have only three vowels in that position, *அ* (in 'தாவம்'), *ஆ* (in 'தானம்') and the first element in *ஐ* and *ஓ*. Is it a wonder then that the Tamilian the moment he hears the æ sound in 'cat' associates it with the nearest approach he has in his own mother-tongue and tries to pronounce it as something like kja:t. Many more stumble over the ɑ: and ɔ: sounds, in 'cart' and 'caught' respectively. Very often wa:te is heard pronounced as wɑ:te. The diphthongal sound in 'no' again is frequently pronounced as a long o sound instead of ou. Similarly in other words like 'boat' and 'coach.'

Coming to the consonants, in English we have two sounds, *v* and *w*, which, though quite distinct sounds, have some acoustic resemblance and which therefore give much trouble to some Indian students. It happens in this case also that the correct sounds are not seldom missed. The English *v* is produced by bringing the lower lip in contact with the upper row of teeth, while the *w* sound is produced by rounding the lips very close and raising the back part of the tongue against the soft palate so as to create audible friction. Can imitation alone without instruction do this?

There are again the *θ* and *ð* sounds which often give trouble. In Sanskrit and the Vernaculars we have two series of consonants called "linguals" and "dentals" respectively. The English *θ* sound has nothing to do with these stops or plosives. *θ* in "thing" and *ð* in "thus" are produced by putting the tip of the tongue right between the two rows of teeth and making it vibrate. The only difference between *θ* and *ð* is that the one is voiceless and the other is voiced. They are both not plosives, but fricatives like *s* and *z*. English *t* and *d*, again, are pure dental plosives, being nearer Skt. *त* and *द* than Skt. *ट*, and *ड*.

Once again we have *ρ* and *σ* sounds in Tamil but not in English; *f*, *v* and *z* sounds in English, but not in Tamil. The English *r* is untrilled and is different from Tamil *ρ*, being almost identical with *r* in "arrange." It was, however, at one time nearer to *ρ* than to untrilled *r*. Instances like these go to prove that mere "imitation" cannot do so much as its apologists would make us believe. The sounds will have to be studied carefully and the time spent on such a study is anything but ill-spent. And the subject is anything but a fad.

III

We shall now examine the objection that is raised by teachers who ask, "Why do you add to the already over-burdened curriculum?" We have already partly answered this question by

pointing out that "Phonetics" is a labour-saving instrument in the hands of the learner and helps him to attain maximum efficiency with minimum effort. There is, however, another equally important reason which should convince any thinking man.

Physiology has taught us that, if any of our limbs is left unused for a sufficiently long time, it gets practically out of control and refuses to obey our will afterwards. Exactly the same is the case with our vocal organs. Very often it happens that grown-up people find it difficult to produce particular sounds for the simple reason that the vocal organs, being unaccustomed to move in those directions, refuse to obey them. We have already instanced the case of the pronunciation of *श* (in "शिव") in South Canara. We have also pointed out the special difficulty that there is for Indians who are unacquainted with the *o* sound. Very often the sound is either unrounded or fronted, or both fronted and unrounded. The reason is evident. The tongue and the lips, being unaccustomed to specially co-ordinate for the production of the *o* sound, refuse to act simultaneously. It happened once that a few students could not produce *ʒ* sound in "measure," though they could easily enough say *f*. The only difference between *f* and *ʒ* is that the one is voiceless while the other is voiced. It took these students full well a month to be able to co-ordinate the vocal organs and voice the sound. And it may happen in some cases that the particular sound cannot be produced at all. As the pupil grows older and older, his vocal organs grow less and less pliant. If he outgrows a certain period, he very often finds it difficult to have complete control over his tongue and lips, with the result that he is unable to utter certain sounds or combinations of sounds which he could have easily mastered when he was young enough. It becomes, therefore, necessary to introduce him to the correct sounds when he is young. "Phonetics" is therefore now begun in the third class when the pupil is trying to get himself ac-

quainted with English words and frame simple sentences. The Phonetic symbols alone are used for the first six months, or even one year, as the case may be, until the pupil is able to frame short sentences of his own. Then, of course, comes the inevitable introduction of the current, chaotic spelling. It is idle to say that such a pupil's spelling is always shaky; for, experience proves that his spelling instead of being shaky gets steady because of the very contrast with the simplicity and order of the phonetic spelling. The gain is, therefore, found to be on the side of phonetic training, because it results in better writing and clearer and purer speech.

IV

Not the least important of the advantages of phonetic training is that it enables us to have a truer and finer appreciation of English rhythm. It is a commonplace to observe that we study poetry for something more than the "matter" it deals with. It happens in the case of the master-poets and prose-writers that the sound and sense are so inextricably bound up together that, if our ears are not trained to appreciate the music of words, we must inevitably fail to comprehend the full lesson that is intended to be conveyed, or derive the full enjoyment that is offered. There are scores, again, of lesser writers whose power over words invests their not perhaps very extraordinary matter with a beauty all their own. Is it possible that a man who has not known the value of sounds can truly appreciate the "organ music" of Milton, the sensuous melody of Keats or the masterly word-music of Tennyson or Swinburne? Can he have any real idea of the glory of words? Can he, for instance, value as he should the beauty of phrase and fancy in the lines which speak of Madeline's trembling hopes?—

"But to her heart her heart was voluble,
Paining with eloquence her balmy side."—KEATS
or in the lines:

"We are such stuff
As dreams are made on, and our little life
Is rounded with a sleep."—SHAKESPEARE

or, once again, in the lines:

Life, like a dome of many coloured glass,
Stains the white radiance of Eternity,
Until Death tramples it into fragments."—SHELLEY

or lastly, in the lines:

"A border fantasy of branch and flower,
And fellow-throated nestling in the nest."—TENNYSON.

It will be seen from the examples quoted above that in the case of Shakespeare and Shelley the difficulty of appreciation is not so great and the keenness of enjoyment is not so much lessened, as in the case of Keats and Tennyson. With regard to the greater poets, we are so much carried away by the mighty tide of their "matter" that we are apt to forget all about the other aspect—viz., the "form"—of their poetry. The case is, however, different with the lesser poets. They lose more than half their value if their "technique" is not appreciated. Though it may sound paradoxical, we may, in this sense, talk of the two races of poets as the "masters of form" and the "slaves of form" respectively, without, however meaning any disparagement to the latter. The former whose number is very small may some times in their own generations be accused, as in the case of Browning, of not having the "glory of words," but the verdict of later generations may be that what they have said could not have been said otherwise. The latter constitute the greater number and are of great importance as being faithful reflection of the different ages. It is these poets who are truly national because of their very restricted range of imagination. We may, therefore, say that Tennyson is more truly an English poet than Browning who is, so to speak, universal. Shakespeare and Browning, like Homer and Virgil, may lose much in a translation, but still enough will be left to make them immortal. Keats, Tennyson and Swinburne, on the other hand, will hardly be worth reading in any language but English. The question then is this: Are we to shut out our Indian students from a true appreciation and enjoyment of truly English poets like Keats and Tennyson and thousand and one other, but lesser, luminaries?

To our mind there can be but one answer. It is our duty as teachers to spare no pains in this matter.

We have heard it said of Spenser that those who are not introduced to him in their school days can never completely enjoy his poems. We may perhaps restate it as follows: Those who have not in their school-days been enabled to appreciate word music can never after travel in the 'realms of gold.'

We believe that the value of English literature lies, far more than a half, in English Poetry, for it is at once the embodiment and expression of the finer part of English spirit. It has inspired the noblest efforts in England's later history and it has come to the East with all the force of a revelation. It has, to speak for ourselves, brought about the Indian Renaissance. It is a rich treasure-house of which the world may be really proud and it is destined, we feel sure, to link tighter and draw the bonds closer round the British Empire—closer than any other tie can. To create in us a love for English poetry and make it easy for us to enjoy its noble works is no small achievement. This can phonetic training do.

(To be continued.)

T. A. RAMAIAH.

Just Ready.

MILTON'S PARADISE LOST BOOK I

WITH NOTES AND INTRODUCTION
REVISED BY

Mr. E. H. ELLIOT, B.A.

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PUNISHMENT IN SCHOOLS.

OF late there has been a great stir in the world of boys. Pupils in schools and students of colleges think more of their rights and privileges than before. The good old days when boys knew nothing of the world outside school, when newspapers could not be had or were taboo, are fast disappearing, and boys have come to take an intelligent interest in the concerns of politics and sociology, and in the discussions in the press and on the platform bearing on them. The spirit of democracy is in the air, and boys too are getting to be more and more imbued with it. Hootings, strikes and rebellions amongst students are on the increase and a readjustment of the relations between the teacher and the taught in our educational institutions has become necessary.

The issue is further complicated by certain new educational theories and ideals that are fast getting hold of men's minds. We have now come a very long way indeed from the mediæval notion that all flesh is evil, that child nature is essentially vicious, and that the best a teacher can do for a child is to thrash him into rectitude. We all know the common saying in this country that 'even brothers may not be of so much help to a child as beating,' and as a counterpart to it we have heard it said that in Europe the young monk who became teacher was on the first day of his initiation into his art made to flog a boy in the presence of his brother monks. The stronger the blows he laid on, the more promising as teacher was he considered to be! All this is old story now, and we have come to perceive that child-nature is divine, that the development of that nature can only be through love and sympathy, and that education consists in providing the proper environment for the unfolding of his faculties. Following out this principle in practice would mean the banishment of all forms of punishment from schools, and any lack or breach of discipline at school would be taken to imply imperfection of organisation and igno-

rance of the workings of the child mind. It is said that in the Theosophical School and College at Madanapalli, the principle is actually worked out, 'rule by love' has come to be established, and so far no serious consequences have resulted.

There is yet another matter also that deserves consideration in this context. The old world notion is fast disappearing that schools exist only for the passing of examinations and that boys have nothing to do but to cram up for them. And in its place is being substituted the theory that since education is to prepare the child for the battle of life, the school itself should be a world in *petto* to him, that 'the best discipline at school is that which is exercised by children over children,' and that they should be taught therein to learn by practice the elements of civic life and self-government, the usefulness of corporate action, the wisdom of rule by the majority and such other things. Experiments in this regard are being conducted in many of the schools in the United States of America, and I give below an account of a system 'by which the public school-boys of the city of New York are allowed to manage the department of their schools':

"The School Court."

"An able boy is appointed by the Principal as Commissioner of Police, and he chooses minor officers who, in their turn, select the policemen. The Commissioner also appoints a Jury, he himself being the Judge.

Now a set of rules is formed either by the Principals and teachers or by the School Court. If a pupil is caught by a policeman disobeying these rules, the latter asks the offender his name and grade or class, which he writes down on a slip of paper and hands in to the Commissioner. That official notifies the offender of the time fixed for the trial, so that he can secure a boy to act as his lawyer. The policeman who arrested him must also secure a lawyer, and be present at the trial,

When the time for the trial arrives, and the Magistrate, Jury, lawyers, witnesses (if there are any), the policemen, the offender, and the spectators are present, the trial begins as in a real Court—the lawyers pleading their cause or cross-examining the witnesses, the Jury deciding whether the offender is 'guilty' or 'not guilty,' and the spectators appreciating a good speech by the lawyers. If the offender is found guilty, he is punished according to his offence; but if he is found innocent, the policeman is 'put off his beat,' and his position is given to another.

This system is good and useful for many reasons, the principal of which are first, that it gives the Magistrate a clear head and a fair sense of judgment, which will help him in the future; second, it teaches the boys who are policemen that, even if they are officers, they cannot do as they please; and, third, it saves the teachers the trouble of punishing unruly pupils."

We have an echo of this system in India also, as, for example, in the Presidency College, Calcutta where, we are told, a Students' Consultative Committee on an *executive* basis existed till the recent trouble now known as 'Professor Oaten incident' arose. In this presidency also, there are in one or two schools run by American Missionary gentlemen what are known as 'Students' Senates.' These consist of pupil representatives elected by boys of their respective classes from the lowest to the highest, and are entrusted with certain matters pertaining to internal discipline. Sports committees and literary or other associations managed and run by the boys themselves with some sort of nominal control and supervision by the masters, are common in all schools, and no boy, however low or unintelligent, but feels that he is a factor in the economy of the school."

Over and above all these, and having special reference to conditions in India is the fact that in a fairly large number of cases here the education of the young is left in the hands of

teachers who are not natives of the soil, and who cannot therefore be expected fully to enter into, understand and sympathise with the difficulties and susceptibilities of Indian students. For various reasons which it is unnecessary to go into here there has of late come to exist "what may be called a spirit of excessive touchiness among students of the rising generation." The recent resolution of the inmates of the Cfithness Hall, and of Students' assemblies elsewhere protesting against the insult, real or fancied, offered to Intermediate students in general by the Rev. Mr. Macphail is a case in point. Personally I do not think that that gentleman intended any insult at all. All the same, it has evoked bitterness in certain quarters, and prudence and wisdom should suggest that those who have boys in their keeping should take note of it.

Under circumstances like these he would be a bold man indeed who would say that the problem of punishment in schools is easily solved. For one thing, it may be said that the rule of the rod has come to an end, and the expression 'to take up the ferule' connotes nothing and has lost its original significance. It has ceased to be a corrective even in jails and prison-houses. Public opinion in all countries is entirely against it, and any wholesale resort to it in schools without consideration of the party to whom it is administered should be condemned as a grievous mistake. More often than not, corporal punishment produces an effect the very reverse of what we should like it or intend it to produce. The object of all punishment is to induce sincere regret for the past, and a firm resolve to do better in the future. If instead of this it provokes feelings of hostility, engenders perpetual resentment or sours the spirit, as corporal punishment frequently does, the teacher should have considered to have missed his aim, and even to be responsible for any aberrations of temper or character which may result from the wrong bent given to the pupil's nature by this ill-considered punishment. I do not

mean, however, that the cane should never be resorted to at all. I can well imagine cases when a sharp thrashing will do good. But such cases come very rarely, perhaps twice or thrice in the year, and then the teacher should take advantage of them, and make the administration of the punishment such a serious and solemn matter as to create in the minds of all the boys of the school the wholesome fear that they should never render themselves liable to such punishment. As for the guilty boy, it is not enough that he is left to his own devices. immediately after the punishment is over. At best, the punishment and the disgrace can only create loathing for the crime, but the desire to do well and rise again in the estimation of his masters and fellow students will only come through love. It is the bounden duty of the master concerned therefore immediately to take the boy under his special care, and by his words and actions make him feel that his master was not influenced in the least by any revengeful spirit or hate, and that the hand that strikes can also bless. It is only when this is made quite clear beyond all doubt that reformation sets in, and the boy improves.

If then corporal punishment should be banished from school very largely, if not wholly, it may well be asked what other resources are left to the teacher for the maintenance and enforcement of discipline at school. A sharp look or word, persuasion, an appeal to the better sense of the boy, threat or temporary withdrawal of favour—all or any of these will do. But more than all these is the need for the teacher clearly to recognise that in this as in other matters prevention is better than cure, and that if a few general precautions are taken and principles observed, he will have minimised to a very large extent the opportunities to pupils of going wrong, and so the necessity of having to inflict punishment.

In the first place, masters have to a very large extent to get over the notion that they are very 'superior persons,' and that in all their dealings

with boys they should display the true spirit of comradeship. This consists in genuine sympathy without any notion of superiority, genuine kindness without condescension, and a sincere desire 'to give and take' on terms of equality. I must confess I have seen this spirit displayed only by a few amongst Indian teachers, though amongst European Missionary teachers there are many whom it is a sincere pleasure to see moving on terms of perfect intimacy and frankness with boys. To a certain extent, it is not the Indian teacher's fault that he does not cultivate such intimate relationships with his boys. The fact is that whereas with European teachers our boys know how to behave without descending into vulgar familiarity, they are too often apt to mistake the Indian teacher's attempt to make friendship with them for weakness, and forget that, however much his teacher might be his friend, some consideration and regard are yet due to him. All the same, in the altered conditions of the present the teacher who is too sensitive about his dignity and over-anxious to maintain it will often find himself uncomfortably situated, and it is the part of wisdom therefore that he should shed some of his pet notions about himself and move on as familiar terms with his boys as circumstances would permit.

Another circumstance that will tend to the diminution of opportunities of mischief-making or law-breaking is for the teacher to have all his rules of conduct clearly and unmistakably understood by his boys. If along with this, there is the consciousness that the master's eye is on them and that no transgression of the rules will go unchecked, the boys are likely to be very cautious, and not expose themselves to the risk of being found fault with and punished. To this end, the meeting of all the boys of the school every day just before the morning session is most useful and desirable. And every school that has any pretensions to efficiency ought to give facilities for this purpose.

XXII

A third point that the teacher ought to bear in mind is that he should not confound offences due to the boy's lack of power to control himself and his impulses with acts of deliberate wrongdoing. It is always a sound rule to let first or second offences, however serious in their nature, go unpunished but with a warning, and in many cases it happens the same boys are not again brought before the teacher for breach of discipline or misconduct. Some, however, that have a taint in the blood, that are naturally perverse and intent on mischief, do come again and again, and have to be dealt with in every school, and in such cases, the teacher has to be stern and severe, and not shrink from the task of administering the needed punishment, however unpleasant it may be. Even then, the teacher should not be content with merely punishing. As has already been said, he should never be tired of appealing to the boy's higher nature, should somehow or other get at the divine spark in him and fan it into a glowing flame, so that step by step and by slow degrees, all the dross in his nature is burnt away and only the pure gold remains.

P. A. SUBRAMANIAN.

In Active Preparation.

COLLEGE ALGEBRA

*A Text-book for the Intermediate and
B.A. Classes*

BY

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AN INTRODUCTION TO THE STUDY OF 'FORMATION OF CHARACTER.'

"SO also with character, without which learning is of no avail to secure success in life..... It is character in combination with learning that makes a man, the man of whom the State needs so many and for whom the demand is unfortunately so much greater than its supply."—LORD HARDINGE.

Perhaps, the Sanskrit equivalent of the word 'character' takes us to the very root of what we mean by it. 'Charitha' means literally that which pertains to motion. In the restricted sense, in which it is taken as equivalent to character, it means that which pertains to the motion of an individual in his life.

Without questioning why, it is sufficient to assume that there is a desire in humanity, in the flower of humanity at any rate, to attain perfection in this motion in life, i. e. in charitha or character. It may also be assumed that the perfection is believed to consist in spending the life-time, in a manner that does not jar with the sense of morality and the sense of beauty which are almost instinctive to mankind and in a manner that would make life as far as possible useful in the service of humanity. Beauty and utility, in other words, are the two main features that pertain to good motion in life, i. e. of character.

Granting, then, that there is need for good character, let us examine how and when it assumes a definite form in individuals and how far it is amenable to artificial formation. From the point of view of character-formation, the life of an individual may be, speaking roughly, divided into two parts, the first part extending over the first twenty years, and the second, over the rest of it. In the first period, the individual is in a nascent and plastic condition and the forces that determine the "motion" are those of his instinct and of his environment. By the end of

this period, in most cases, an individual's character takes a definite shape; and, in the second part, except in very rare cases, it is next to impossible to change its shape to anything like a marked degree. Although, of course, there may be some conformable improvement or degeneracy as the case may be, in after-life, the mould is formed once for all in the first and first part only.

*Next, as to the extent of permissible and desirable interference of man in the formation of character. There is, first, the naturalist school of thinkers, who, in their usual way, would leave everything to nature. But, leaving to nature will not always produce the desired result. It is especially so in the case of character-formation.

For, it may be stated with some confidence, that, among the forces that go to the formation of character, the second, namely that of environment, is apt, if left to itself to become untrustworthy and mischief-making. And, if anything like good result is aimed at, it is imperative to take the environment from the hands of nature and transform it, in other words, prepare and maintain it in a condition which is calculated to have the best effect in the direction of what the experience of ages has taught the humanity to be good character. It is a thing which is possible and necessary.

But, it is not sufficient. However good the environment, it will fail to turn an ape into a man, a fool into a seer, a brute into a poet. In fact, we must take into consideration the nature—the heredity—of the man, which determines his instinct. In the case of this force, it is not possible to be equally assertive. However, although it is not amenable to the immediate interference by man, it is not impossible to develop and improve it. Here, again, there is occasion for the service of human agency. Nay, it is almost essential. Even if we regard natural instinct to be always righteous in the case of all individuals, human agency is essential to safe-guard

it. If, on the other hand, natural instinct is admitted to be capable of being questionable, human effort is needed to strain it to the proper condition.

Thus, then, it is necessary and essential to have under human control the dynamical force of instinct and the attractive force of environment, which determine the "motion in life," charitha or character and this especially in the earlier years of life when it tends to take a definite and permanent shape.

Next arises the consideration of the practical steps that must be taken, the methods that must be adopted, to maintain purity of instinct, to secure purity of environment and to adapt the latter to the needs of the former. The former belongs to the sphere of Practical Eugenics and the latter, to that of Practical Pedagogics. It may be remarked at the outset that, as yet, no definite and uniform conclusion has been come to on these points nor is it possible to do so. For, as Mr. Whetham observes, "the various actions of a community differ inherently among themselves and to make the most of their opportunities require methods differing profoundly among each other in scope, aim and direction." This is a problem, however, that has been and is engaging the closest attention of every society and of every government, of the past and of the present. From the time of Plato downwards, it has been studied and meditated upon; and in the recent years, after the rise of the socialistic school, inaugurated by the immortal 'Utopia' of Sir Thomas More, many an experiment is being performed in some of the foremost countries such as France, Germany and the United States, with the usual successes and failures, but destined to lead, in the long run, to the best of results.

Mention may be made also of the solution which the Ancient Hindus had in practice, namely that of subjecting the boys or 'Bramhacharyas,' as they were called, to the strictest imaginable discipline. Traditional stories are but

too numerous to illustrate how the ancient 'Gurus' stripped off their 'Sishyas' from amidst their parents and injected into their minds a desire for truth, a desire for righteousness, a desire for goodness and a desire, in short, for everything that goes to the best character, by personal example and by the idealised pictures such as those of Sri Rama and Lakshmana and drilled them in the practice of the same and put them now and again to the hardest tests possible. Although the results were very satisfactory in many outstanding cases, it has to be reflected if the same results could not be achieved by allaying the severity of the discipline, which was the invariable tool they had recourse to.

The ancient Greeks and Romans had certain methods, each of which had defects of its own. One defect, at any rate, is obvious; namely, that their methods were not enduring enough, were not stable, but, began to fail them in times of prosperity and betrayed them to certain degeneracy.

In more recent times, the Americans and the Germans seem to be studying the problem, with the greatest care, by means of elaborate socialistic experiments. They are examining the validity of the assumptions we have started with, especially those of a doubtful nature regarding instinct; they are investigating the relation of heredity, social position, &c., to the formation of character; they are working out how far environmental adjustments could modify the defects by nature and all such knotty points in sociology by subjecting boys of different strata of society to different circumstances, noting and co-ordinating the observed results and arriving therefrom, by the strictest scientific method possible, generalisations, such as were touched upon, three years ago, by Dr. Henderson of Harvard University, in his lectures, in Madras, on 'The Socialistic Programme of the West.' It is possible that there will be much for us to learn from their researches in this department of knowledge.

SAIDAPET.

S. R. RANGANATHAN.

TRAINING FOR COLLEGE LECTURERS.

VERY little machinery has been provided by the University or the Government to train Bachelors of Arts or Masters of Arts for an efficient discharge of their duties as College lecturers. This does not evidently mean that the instruction given at present in the various training colleges and the several opportunities for picking up experience by handling for some time the University classes are totally left out of account. But what is sought to be insisted upon, is that the existing facilities for training are too inadequate to meet the real needs of the college lecturers. A careful and an unbiassed analysis of the true nature of the present opportunities of graduates getting themselves trained to teach the college classes satisfactorily, reveals in unmistakable terms, not only the insufficiency but also the danger of perpetuating the existing media for training. Hence it is absolutely necessary that educationists should seriously think of a practicable and really useful constructive programme to institute an adequate training ground for the graduates to whom the destinies of large numbers of students of the University classes are entrusted.

At present, it appears there are only three courses that can be resorted to by a graduate to qualify himself for the post of a college lecturer. He might seek admission into some training college and after undergoing for one year some practical training and sitting up later for a University examination, he might get an L. T. diploma. This is generally recognised, though perhaps on a slender basis of wisdom, to be a passport for a successful college lecturer. The second course open for the raw graduate is to somehow get himself entertained as a tutor under some able professor or professors in a premier institution of the type of a Christian College or a Presidency College and thus have all the advantages of a real training college. Sometimes, graduates who neither care to take up the L. T. course nor can secure the benefit of a tutor-

ship in a first-rate college are driven to have recourse to a third avenue. This is nothing short of the experience they can pick up after lecturing to the college classes for some time.

At the outset, it may seem that the three foregoing agencies of training are admirably adapted to meet the requirements of a college lecturer. However, a moment's careful consideration is enough to show the inexpediency of these being regarded as effective preparatory stages in the career of a successful professor of the University classes. The reasons are not far to seek. But they require perhaps some explanation for purposes of clearness.

It is sometimes maintained with some cogency and force of argument that an L. T. diploma is perfectly useless, helpless, may even misleading for a college lecturer in discharging his duties in an ideal way. This extreme school of thought cannot for a moment be tolerated since it pays no attention even to the laudable principles of educational psychology that really constitute the dominant keynote of the curricula of studies for licentiates in teaching. Whatever this may be, the L. T. course as at present constituted ought not to have been held up as an ideal course of training a teacher for work in the college classes. There can, of course, be no two opinions on the point that both the theoretical and the practical aspects of the L. T. course are admirably suited to satisfy the requirements of a model High School teacher; for in the present training colleges, provision is made for the praiseworthy model lessons and criticism lessons only in the primary, lower-secondary and upper-secondary classes. If a like provision is made for practical instruction in dealing with the University classes as well, training colleges, one can be perfectly sure, do not deserve a particle of the blame sometimes levelled against them.

Sometimes the Government is blamed for insisting upon the L. T. qualification even for the college lecturers in the various Government

colleges of the Presidency. But a close study of the Government policy reveals their real motives in compelling all their inspecting officers and teachers in the Educational Department to possess the L. T. diploma. The Government often appoint their college lecturers as inspecting officers, and their inspecting officers as college lecturers. Further, headmasters and assistants of the model High Schools maintained by the Government are often selected from either the inspectorate or the professorial staff of the colleges. This expedient of a continual interchange of officers which the Government is often obliged to resort to (for reasons unnecessary to be detailed here), becomes an impossibility if, for college lecturers alone in the Government colleges, the L. T. qualification is declared unnecessary. So the insistence on the L. T. qualification appears to be a political necessity in the case of the Government.

In spite of the formal stress laid on the L. T. qualification, even the Government do not seem to regard the L. T. diploma as constituting the be-all and end-all of the qualifications necessary for a college lecturer. This statement is borne out by the fact that the Government do not generally import into the professorial staff of the colleges men fresh from their L. T. class, though they come out creditably successful in the L. T. Examination. Some capacity to handle the college classes and real merit seem to be the true criteria of the selection of candidates for college lectureships, though for reasons already stated, the formal L. T. degree is outwardly made much of.

When such is the underlying meaning of the value attached to the unfortunate L. T. course, even in the Government colleges, it is nothing short of a meaningless and an extravagantly luxurious imitation on the part of some proprietors and principals of some 1st and 2nd grade colleges if they require that their college lecturers also should be able to wield the acknowledgedly effete weapon of the L. T. diploma. If

at all there is any real benefit in their college lecturers getting themselves dubbed as L. T.s, it is only some smattering of educational psychology and pedagogics, not to speak of an ever welcome extra-tail to the suffix indices of their college professors. So far as the theory portion of the L. T. course is concerned, the college lecturers may by their own individual exertions equip themselves with far more knowledge than an average L. T. may be supposed to have gathered in the L. T. class. Further since the practical training these L. T.s receive is strictly confined to the various teaching gymnastics and methodical sleights of hand indispensable perhaps in dealing with young high-school students, there is sometimes a danger of *high-schoolising* the University classes if raw and inexperienced L. T.s are appointed as college lecturers for the simple reason they are L. T.s. Again even an experienced L. T. that may be an adept in successfully employing the various methodological tricks of legerdemain before High-school students finds it not a little difficult in employing the same methods before Intermediate and B.A. students. The manner of dealing with the University classes is *specifically* different from (though it may be the same *generically*) the manner of teaching the high-school classes. The training colleges as at present constituted have practically done nothing by way of ministering to the real needs of a college lecturer. It may therefore be emphatically asserted that for the college lecturer, the work-a-day L. T. course is quite useless for practical purposes, though volumes can be written on the *theoretic* importance thereof.

Tutorship in a first-rate college is the second alternative which a graduate may resort to so as to receive some good training as a college lecturer. Tutorship under some able professor or professors in a premier institution is perhaps one of the best pass-ports for a graduate becoming an efficient teacher of the University classes. Tutors in a decidedly model first-grade college may in a sense be looked upon as undergoing an excellent ap-

prentice course preparatory to their occupying the professorial chair some day. This is quite possible, since in the period of the apprentice course, the tutor gets himself initiated into the trade-tricks of the master-craftsman, the elderly professor under whom he has the proud privilege of serving. But alas! howsoever an ideal agency of collegiate training this may be, impartial replies to the following delicate queries negative the possibility of exploiting in a large measure this really useful and resourceful agency of training: How many institutions deserving the epithets, "Premier and First-rate" are there in the Presidency? How many really capable professors in the various Faculties are there in the Presidency? And above all what is the measure of the normal demand for tutorships in those premier colleges whatsoever their number may be? It can be readily seen that statistics prove beyond the least shadow of doubt that the number in the foregoing three cases is too meagre to be of any real moment and import for the large numbers of graduates desiring to qualify themselves as efficient college lecturers.

Coming now to the third alternative, one can very easily see that the various graduates who neither condescend to become L. T.s nor are fortunate enough to be employed as apprentices under able professors are driven to rely on their own individual resources to qualify themselves for ideal work in the University classes. Much is said in support of this alternative which for exigencies of exposition may perhaps be called "the individualistic method." The psychological proposition that every one can best take care of his own interests may be cited in favour of each college lecturer chalking out his own lines of procedure. Though this may in the long run turn to be a commendable ideal, it must nevertheless be said that the individualistic method is bound to be at least a partial failure in its initial stages. The indefiniteness of the University ideals, the ever-fluctuating standards expected of the unfortunate students by vacillating boards of ex-

aminers, a constantly revolving series of newer and newer innovations that the University authorities often contemplate,—these and many more such causes which cannot perhaps be safely committed to writing are mainly responsible for the failure of the individualistic method.

It may further be contended on behalf of this alternative that the success according to this individualistic method is far surer than any other, though of course slower. As against this view, one should simply ask: Are the unfortunate students to be the unfortunate victims of these individualists in their period of experimentation? It may again be said in support of this individualistic method that any training for college lecturers may be held to be unnecessary and superfluous on the plea that these lecturers must have studied the manner aspect of their own professors when they were students. The absurdity of this contention is too plain to deserve any special comment.

Since the commendatory as well as the condemnatory aspects of the present agencies of training college lecturers have received some of our attention and since the preponderance of the latter aspect is found to nullify the little that is really commendable, some constructive programme of a practical nature may now be suggested to reform and enhance our facilities for training college lecturers. The various possibilities of introducing adequate media of training for college lecturers may in the opinion of the present writer be divided under three heads; for some provision may be made by (1) the Government or (2) the University or (3) some first and second-grade colleges in the presidency.

WHAT THE GOVERNMENT MAY BE EXPECTED TO DO. Let the machinery, staff, the number and nature of classes maintained in the training colleges under the Government management be thoroughly reformed so as to make it possible for B. A.'s and M. A.'s seeking for collegiate training to realise their requirements on a more practical and ideal basis. The object can be achieved by introducing

the Intermediate and B. A. classes also into the present training colleges and by also making provision for Observation, Model and Criticism lessons in the University classes. The syllabus of the Theory course for the L. T. Examination may be slightly altered so as to fit in with our notions of educational psychology of an advanced character.

If this programme is found to be too much to be satisfactorily run in the course of one year, let two years' course be insisted upon and let the present L. T. constitute the first year's course. The 2nd year may be exclusively set apart for training teachers to handle the College classes.

If two years' L. T. course is found to be hard, all the graduates need not be compelled to undergo such a long course of training. Only those of the graduates who desire to enter the Government service or get themselves qualified to handle the High School as well as the College classes may be required to be in the training college for four terms; the rest whose tastes lead them to specialise in the methods of efficiently handling either the High School or the College classes may be allowed to undergo training only for one year.

A business statesman may say that, though all these suggestions may look very nice on paper, financial difficulties especially in these days of crippled finance may prove to be an insurmountable objection. Even taking it for granted that financial difficulties do arise, the following scheme may with much advantage and less cost be tried:—Let provision be made in the training colleges for special lectures on the higher principles of educational methodology useful for college lecturers. No separate and costly machinery is required to make this arrangement. And let candidates of the second year L. T. course be asked to go to the Presidency College or the Christian College to study the manner aspect of the model and ideal lectures delivered by the able professors there to their University classes. If special lectures on methodology as well can be arranged in these very

colleges and if experienced professors like Mr. Mark Hunter, Mr. Allen, Dr. Skinner and Mr. Mapphail can be requested to deliver those special lectures, candidates of the second year L. T. class can boycott the unhealthy Saidapet and breathe the enlightened metropolitan atmosphere during their apprentice course.

This is what the Government may reasonably be requested to do in the matter of enhancing the facilities for training college lecturers. The professors of the Government colleges may perhaps devise far more practical schemes in this connection.

WHAT THE UNIVERSITY MAY BE EXPECTED TO DO.

The well-trying and able professors of the various premier colleges affiliated to the Madras University may be requested, without of course any hindrance to their daily routine, to set apart some of their specially ideal class lectures for the benefit of apprentice college lecturers. Some qualified University professors may be appointed to deliver useful lectures on the higher tenets of advanced pedagogics. Any amount of money that the University may be pleased to spend in remunerating such professors will be money usefully spent. Such professors, in case they are not pinned to Madras in the holy name of special research work, may be empowered to inspect the various colleges in the presidency from time to time and deliver model lectures also without being satisfied with an exercise of the dictatorial knack of fault-finding. The details connected with these various proposals may be worked out by special Committees that the University may be pleased to form.

WHAT SOME INDIVIDUAL COLLEGES THEMSELVES MAY BE EXPECTED TO DO.

If neither the Government nor the University condescends to consider the suggested proposals and if the proprietors and principals of the various first and second-grade colleges really feel that the L. T. qualification does not go a long way in providing an adequate training for their



college lecturers, they may be requested to adopt the following scheme :—

Let the various private colleges send their *raw lecturers* to some premier institutions in the presidency—say St. Joseph's College, Trichinopoly, and Pachaiyappa's College, Madras—so that the said lecturers may get themselves initiated into the manner aspect of at least a few select and ideal lectures which the learned professors there always deliver to their own students. One can be confident that the principals or the professors of these or other first-rate institutions may possibly give the required permission to this arrangement if only the authorities of the private colleges approach them with a request.

Again let the various private colleges of the presidency (especially those unrepresented in the oligarchic executive bodies of the University) unite and organise a number of periodical College Lecturers' Conferences where several problems of theoretic as well as practical interest may be well discussed.

All this scheme may to some extent touch the pockets of the proprietors of private colleges. Still any money spent in this way will perhaps be a good investment and above all will do something in enhancing the facilities for training raw college lecturers.

It must in conclusion be observed that it is not at all the aim of the writer of this article to set up his own views as so many ideals; he expects a healthy discussion of his various proposals before any schemes are finally adopted.

G. SATYANARAYANA MURTI.

PROGRESS OF ENGLISH INSTRUCTION IN THE MADRAS PRESIDENCY—1901—1915.

I
THE importance of the first fifteen years of the present century, so far as educational progress in Madras is concerned, consists in the fact that the period can be divided into three fairly marked quinquenniums, each possessing distinct characteristics. The first (1901—1905) belongs to the old school of instruction. The second (1906—1910) covers the period when educational reform was set on foot; and granting some time for the complete assimilation and adoption of the reform principles, it may be assumed that by the close of 1910, the reform movement in its entirety must have been in full swing in the schools. This quinquennium, therefore, may be styled the transition period. During the third period (1911—1915), the schools can be expected to have worked on the reform lines. Evidently the year 1910 saw the termination of the old system, and early in 1911 began the new system in the matter of both Government and University examinations.

Early in the second quinquennium, we found a revolt against everything old, from the pattern of benches, class arrangement, and the system of marks of the methods of teaching and system of examinations. A new combined bench-and-desk was introduced the parallel row arrangement took the place of the old hollow rectangle arrangement of the class. The old place-taking method for giving marks was dispensed with; and new methods of teaching were introduced for every subject, for instance, the Direct Method for teaching English. The change was so thorough going that to a student of the eighties and nineties of the last century the present class and its working must seem a mystery, at least a metamorphosis. In the eyes of many experts the reform is all beneficial. But there are many who seem to think that the new system is barren of good results, and that the so-called reform has only made the way smooth for the deterioration of education. Whatever be the truth, let us for

a moment to take stock of the past and ascertain which way the balance swings.

There are indeed many ways to ascertain progress in general, but what appears to be the most tangible of them all is the statistics of results at public examinations. Opinions of experts are liable to be one-sided, prejudiced and so forth, but facts and figures, I believe, cannot mislead us. It is for this reason that I have chosen this particular method to show how educational matters have progressed during the period under review.

In presenting the accompanying tables of statistics, the attention of the public is invited to the following points :—

(1) The period covered by the statistics comes up to thirty-five years, of which two decades belong to the last century, and the remaining fifteen years to the present. Though this article is meant to furnish details relating to the last fifteen years, two corresponding quinquenniums of the last century are also taken up in order to afford facilities for comparing the results of the reformed schools with those of some corresponding periods of the old school. Totals of the three old school quinquenniums are furnished side by side, along with the corresponding percentages.

(2) The horizontal lines numbered as (a) give the total figures, and those numbered as (b) fur-

nish the corresponding percentages. Those in the lines under III (a) are the totals and percentages for the three old school quinquenniums.

(3) Columns 6, 7, 8 are meant to indicate distinctly how many failed in English only, having passed in knowledge subjects involving the command of English; then how many, having passed in English, failed in knowledge subjects involving the command of English; and lastly the number of those that failed in both, for which defective English is mainly responsible.

(4) Tables I and II are meant to indicate the immediate and remote results of the reformed system.

(5) The low figures for the Matriculation examination during the quinquennium (1911—1915) are due to the fact that the examination is practically defunct. Though the two examinations are existing side by side, they do not generally go up for the Matriculation, for the simple reason that the S. S. L. C. examination is a comparatively easy test, since there is no failing in it. They need not pass in all subjects; they may fail in many subjects and yet secure admission into the College classes. A few students, however, are selected here and there from among the brightest and sent up for the Matriculation examination.

Statistics of results of the Matriculation and S. S. L. C. Examinations of Madras for three quinquenniums 1901—1915, with special reference to English instruction.

Period.		Number sent up.	Number passed.	Number failed on the whole.	Total failures in English.	Failures in English only.	Failures in knowledge subjects only.	Failures in both.
I	2	3	4	5	6	7	8	9
Matriculation I.								
1881—1885.	Figures (a)	24,642	8,002	16,640	10,981	2,618	4,248	3,818
	Percentages (b)	...	32	88	45	11	17	69
II.								
1891—1895.	Figures (a)	28,821	6,285	17,086	11,597	2,284	5,238	2,368
	Percentages (b)	...	27	78	50	10	28	40
III.								
1901—1905.	Figures (a)	41,275	11,699	30,276	19,156	8,047	10,637	16,118
	Percentages (b)	...	27	73	46	7	26	89
III (a)								
Three old school quinquenniums taken together.	Figures (a)	89,858	25,886	63,952	41,734	7,899	20,128	34,299
	Percentages (b)	...	28	72	47	9	28	88
IV.								
1906—1910.	Figures (a)	35,785	8,518	27,272	20,857	3,985	7,681	14,478
	Percentages (b)	...	24	76	58	11	21	40
V.								
1911—1915.	Figures (a)	1,820	390	1,236	972	176	227	708
	Percentages (b)	...	24	76	60	11	16	48
V (a)								
S. S. L. C. Examination, 1911—1915.	Figures (a)	17,644	1,897	8,998	6,047	1,131	3,508	4,589
	Percentages (b)	...	28	72	47	9	28	88

(1) The figures for the Matriculation examination are taken from the reports of the Syndicate of the Madras University.

(2) The figures for the S. S. L. C. examination are those relating to some twenty high schools, ten larger high schools and ten high schools attached to Colleges. These are chosen for the

reason that they may be expected to work under specially favourable conditions, such as better supervision and guidance.

(3) Passes and failures at the S. S. L. C. examination are calculated according to the minima prescribed for the Matriculation examination.

Statistics of Results of the F. A. and Intermediate Examinations of Madras for three quinquenniums 1901—1915, with special reference to English instruction.

Period,		Number sent up	Number passed.	Number failed on the whole.	Total failures in English.	Failures in English only.	Failures in knowledge subjects only.	Failures in both.
1	2	3	4	5	6	7	8	9
F. A.								
I.								
1881—1885.	Figures (a)	4,988	2,027	2,961	1,485	258	1,428	1,177
	Percentages (b)	...	41	59	29	5	29	24
II.								
1891—1895.	Figures (a)	9,926	3,502	6,424	4,008	786	2,056	3,267
	Percentages (b)	...	35	65	40	7	21	33
III.								
1901—1905.	Figures (a)	10,759	4,161	6,598	3,888	631	2,186	3,251
	Percentages (b)	...	39	61	36	6	20	30
III (a).								
Three old school quinquenniums taken together.	Figures (a)	25,673	9,690	15,983	9,321	1,625	5,665	7,695
	Percentages (b)	...	38	62	36	6	22	30
IV.								
1906—1912.	Figures (a)	10,200	3,777	6,423	4,099	888	2,032	3,018
	Percentages (b)	...	37	63	40	9	20	30
V.								
Intermediate Examination.	Figures (a)	12,146	4,279	7,867	5,692	1,841	1,638	4,136
1911—1915.	Percentages (b)	...	35	65	49	15	13	34

The figures of the Intermediate examination are taken from the reports of the Syndicate of the Madras University.

Some generalisations that can be formed from the tables:—

(1) Column (4) shows that the percentages of passes continued to fall during the reformed period. Column (5) likewise points to the gradual increase in the number of failures.

(2) Failures in English (col. 6) and failures

in both (col. 9) are on the increase in spite of the reformed system.

By way of summarisation, it may be said that the educational reform effected during the second quinquennium of the present century is not found, if the criterion of statistics can be relied upon, to have done any good, at least so far as statistics have revealed to us; and while the continued fall bespeaks the progress in the other direction, the evil remains unmitigated and the downward course unarrested by the reform.

CH. V. JOGARAU.

THE SCHOOL FINAL SCHEME AND HIGH SCHOOL TEACHERS.

THE S. S. L. C. Scheme has been attacked in all its aspects. It has been condemned for the early specialization of subjects, for the omission and inclusion of certain subjects in the necessary course, for the wide range of studies expected of young pupils and for its want of a detailed syllabus of studies. The parents condemn it as giving undue authority to teachers. The managers attack it for the great expenditure involved in the payment and maintenance of the school staff and establishment. In fact the scheme has been subjected to all kinds of adverse scrutiny with which any new scheme is treated at its inception.

It is not my object in this article to take up each one of these points and to support or contest them. I shall only take up the effects of the scheme in general and upon the teaching profession in particular.

There can be no two opinions about the fact that the scheme is a considerable improvement upon the old Matriculation not only in respect of lightening the burden of examination the passing of which was the only passport to success in life, but also in the wide range of opportunities that it affords to the pupils who may resort to different professions according to their acquired or inherited aptitudes. At the same time it embodies in its course all the fundamental elements of a liberal education. The Matriculation course, while attempting to give a liberal education, expected too much from the pupils. It refused to take into consideration the average mental attainment of the pupils, and imposed upon the young minds a heavy strain in the shape of abstract rules and examples of Grammar, of the propositions of Euclid with their hard, rigorous though logical, proofs and of a mechanical memory of the towns, cities and products of the world-regions. Mechanical association of isolated facts became the order of the day. Consequently there was not the mental development in its true psychological sense. The

pupils' entire attention was taken away by cramming. There was no time for them to attend to their health. There were no games, no sports. Physical deterioration followed. Even at this distant date one is struck with horror at the very thought of the Matriculation examination even though one might have passed it at the very first attempt.

When such was the case, is not the S. S. L. C. Scheme a decidedly considerable improvement upon the Matriculation? Without making comparison, we can safely say that the scheme has its own intrinsic merits. It marks a right step in the progress of education in this presidency. It throws the doors of secondary education widely open to the people. It pays attention to the mental, moral and physical development of the pupils. It has as its ultimate aim the development of the pupils' character and the equipment of pupils in effectively performing "all the offices of peace and war, both public and private." More than all, the advent of the scheme brings with it many blessings—blessings which can be realised only by strenuous efforts on the part of the teachers and not by simply sitting in the chair with crossed legs and folded hands, commanding the pupils to do this and that.

The scheme brings dignity to the profession. It has come to be recognised that the teacher's work is the noblest work done in any profession. Can any work be called noble which does not call forth the energy, the capacity and the intelligence of those engaged in it? In a scheme where a dominant place is given to examinations, where the candidates are supposed to be capable of assimilating any and every idea irrespective of the stage of their mental development, there are bound to be excessive cramming and mechanical associations of facts. Teachers handling the details of the scheme were merely the driving force setting in motion the machinery of cramming. There was no exercise of original thinking either on the part of the pupils or of the teachers. Whole text-

books were rigidly followed by teachers and pupils mugged up whatever portions were pointed out as being important for the purposes of examination.

The School Final Scheme, on the other hand, has brought in a new syllabus and a rational method of teaching subjects. Teachers, under the scheme, have to face a more responsible situation. They have to bring to bear upon their work energy, originality and intelligence of a high order. The teachers' work is not now an easy one as it was once supposed to be. Even now it is a common belief among the people (why, even among some teachers) that the task of teaching is a very easy one and that it can be done without any special preparation. That this belief is entirely wrong must be quite evident to those who are engaged in teaching by the new methods. In presenting a subject to his pupils, the teacher has to take into consideration the mental stage of the boys and girls and develop the subject step by step, the pupils themselves discovering almost all the points. This method requires considerable thought and previous preparation on the part of the teacher. He has also to frame a complete detailed syllabus of his work. While going through the June number of this review, I came across an article where a complaint is made that the syllabus framed by the S. S. L. C. Board is rather general and that more details are wanted. This complaint, I think, must come only from those who are in the habit of getting every thing ready-made so that it can be put to use at once without the slightest exertion. The S. S. L. C. Board does not want to give a detailed syllabus. Taking the general standard expected, it is the duty of earnest, enthusiastic teachers to frame the details for themselves in accordance with the needs of liberal education. It may be argued that such a state of things would create a difference in the attainments of pupils of different schools according to the presence or absence in these institutions of earnest and labour-loving teachers. But we do not want teachers who cannot take to their work with sincere love and earnestness. We want those

who will not confine themselves to their classroom, who will look about themselves in the outside world and who will bring into harmonious relationship the school syllabus with the requirements of the community to which the pupils belong. Such a class of teachers will bring due credit to the profession and will clear the general illusion that teachers as a whole are unpractical and do not understand the outside world.

In consequence of the exceptional qualities of head and heart which are required of teachers working under the scheme, there arises a status for the teaching profession. There is no doubt as to the fact that for the last five or six years with the birth of the School Final Scheme teachers have come to possess a status in society. Their work has come to be recognised as being in no way inferior to the work of their brethren in other departments.

The need for experts in special subjects has increased the emoluments of teachers. Teachers under the Matriculation scheme were very much underpaid. Of course even now their salary is not very encouraging and the prospects of the profession are also dull and unattractive. Betterment of the prospects of teachers lies partly at the hands of the Government, and partly at the hands of teachers who must all co-operate and agitate for the same. Purely pecuniary considerations should not blind one to the nobility of the profession. That a large number of graduates of ability and high University distinctions have been, of late, taking to the profession with cheer and contentment is a clear testimony to the value, dignity and importance of it. May we hope that such young men work with vigour and energy and bring additional support to the prestige of the profession!

C. RANGANATHAN.

THE SCHOOL FINAL COMPOSITION.

Scope:—The pupils should be trained to convey their thoughts in correct, clear, and pleasant language. All attempts at fine writing should be discouraged and purism is too high to be aimed at. All that is expected of the High School pupils is a logical, mutually consistent and connected treatment of the subject in clear, correct and concise language without needless repetition and the confused mingling of different views.

Difficulties:—English composition in India is not the exotic of an hour; it is a plant of slow and gradual growth. The errors in composition are hydra-headed. Even the advanced student mars his composition by little errors of idiom which are said to jar upon the ear of the native Englishman.

The teaching of composition is a matter of labour and difficulty. Teaching a large class to write a respectable essay is not an easy task. The defects of structure and style are sown broadcast over the pages of every essay written by a High School pupil. These defects have to be repeatedly corrected. The difficulty that attends an exercise of this kind is the chief reason why composition is neglected both by teachers and pupils.

Method:—"Follow Nature" is a law equally applicable to the teaching of composition as to every other branch of instruction. The earlier evolved faculties should be trained earlier, and the later evolved ones, later. Memory is the earliest developed of powers, while judgment and reasoning are evolved much later. Following the natural order of development, we should adapt the initial stages of composition to the training of memory.

Thus the composition of the *Fourth Form* should mainly consist of exercises in the reproduction of fables and stories once read out to the

class. The exercises should be carefully corrected and the boys led to discover their own mistakes and correct them. If time permits, the pupils may be asked to rewrite their exercises.

The above method may be prescribed for the *First Term* course of the *Fourth Form*. The exercises should occasionally be varied by reproduction, in the pupils' own words, of the substance of the lessons in their text-books, and short accounts of historical personages.

Continued exercise in reproduction tends to the one-sided development of memory and enables the pupils to reproduce word for word the original story read out to them. The very object of composition fails of its end, if the memory is abnormally developed at the expense of the other powers.

With a view to remedy the possible evil just pointed out, exercises in reproduction, in simple prose, of stories written in verse, and in the elaboration, or writing in an enlarged and readable form, of stories given in outline, may be prescribed towards the latter part of the *Fourth Form* course.

The most common errors should be explained in the open class. Geographical subjects and familiar objects in nature may occasionally be introduced to vary the dull routine of reproduction and elaboration.

Objects may with advantage be presented to view in the open class and each boy be asked to frame a sentence or two describing some features of the object presented. The sentences should be corrected and written by the teacher on the B. B. The teacher should group them under paragraphs with due regard to the rules of selection, unity, and logical arrangement. The same processes may be repeated in a fairly large number of exercises to serve as models. Later on, the teacher should suggest new themes upon which the pupils should work independently in accordance with the rules above-mentioned. These exercises should be revised by the teacher and rewritten by the pupils.

A thorough drill in the portions done in the Fourth Form may be given to Form V for the First Term of the course. More complex exercises should be given in the reproduction of stories in prose, verse, and outline, in the writing of extracts from the text-books and in the elaboration of hints into continued narratives. Historical and Geographical subjects should alternate with reproduction; and symbols may be used to expedite correction.

Exercises for the Second Term of the Fifth Form course have to be gradually modified. Pupils now reach the stage where judgment and invention or constructive thought appear by degrees. The pupils may now be given a definite idea of the method to be employed in essay-writing. Let them once master the principles of essay-construction; they will find it far easier to write their essays afterwards.

With this object in view all essays may be roughly grouped under three heads; viz., the Descriptive, the Narrative and the Reflective; and a common and definite plan may be laid down for the treatment of essays coming under each group. An outline thus drawn up is a necessary preliminary to ensure a logical and connected treatment of the subject. The outline fixes the main divisions of the subject, and the general facts appropriate to each division will suggest themselves readily. When the facts are thus collected, illustrations will be comparatively easier.

I. The common outline of a Descriptive Essay.

(a) Where the theme is a town or village.

- (1) Name and meaning.
- (2) Situation.
- (3) Natural features, climate, soil, scenery, etc.
- (4) Dimensions, area and the like.
- (5) Special characteristics—public offices, schools, etc.
- (6) Nature of the people—occupation, etc.
- (7) History.

(b) Where the theme is an animal.

- (1) Family and order.
- (2) Physical qualities.
- (3) Where found.
- (4) Habits.
- (5) How captured.
- (6) Usefulness to man.

(a) Where the theme is a ceremony.

- (1) Preparations.
- (2) Descriptions of parties and their dress.
- (3) Ceremony proper.
- (4) Number assembled.
- (5) Entertainments.

II. A common outline for "Narrative Essays."

(a) Where the theme is an event.

- (1) Cause.
- (2) Connected incidents.
- (3) Result.
- (4) Reflections.

(b) Where the theme is a person.

- (1) Date and place of birth.
- (2) Parentage.
- (3) Education and early signs of future greatness.
- (4) Career.
- (5) Death.
- (6) Estimate of character.

III. A common outline for an essay in which the Descriptive is combined with the Narrative; e.g., a journey.

- (1) Purpose.
- (2) Preparation.
- (3) Means of transit.
- (4) Length of the journey.
- (5) Views seen.
- (6) Arrival at the destination.
- (7) Friends, amusements, and so on.

IV. A common outline for "Speculative Essays."

(a) Theme—abstract subjects.

- (1) Definition.
- (2) Origin and growth.

(3) Varieties

(4) Advantages and disadvantages.

(5) Conclusions.

(b) Where the theme is the expansion of a maxim or proverb.

(1) Meaning.

(2) Illustration.

(3) Exhortation.

A thorough revision of the Fifth Form course may be recommended for Form Six together with themes selected from the English Texts prescribed for the School-Final. It has to be borne in mind that the questions for the School Final are so shaped as to test the power of the candidates to write respectable essays.

AIDS TO COMPOSITION.

1. *Grammar*:—Just as the art of Education is based on the science of Psychology, the art of Surgery on the science of Anatomy, Medicine on Physiology, and Photography on Optics, so is the art of Composition based on the science of Grammar. Corrections in composition cannot be made without reference to the principles of structure dealt with in Grammar. Thus grammatical principles have to be well impressed upon the pupils as an auxiliary to English composition. It is regrettable that Grammar is not now receiving that degree of attention which it ought. The educative value of Grammar cannot be overestimated. The neglect of Grammar may not seriously affect the composition of English boys; but an Indian boy absolutely innocent of a knowledge of Grammar has to grope in the dark when he is called upon to write a piece of composition. Grammar is a spot out of composition where should rest the lever that moves or advances composition.

2. *Text-Books*:—It has already been pointed out that questions in the text-books are so set as to test the power of composition. The text-books add to the vocabulary of the pupils and give them a greater command of language and

greater facility of expression, if properly taught but the present tendency of teachers is to exert themselves only so far as to make pupils understand the books. It is, however, the power of expression that is tested at the examination and few teachers take pains to improve this power. As a result pupils, as a last resource, get up their texts by heart and reproduce them *verbatim* in their answer papers. How can this defect be best remedied?

The boys should be trained to express their ideas in a variety of forms. Transformation of sentences, expansion of phrases, contraction of clauses, substitution of words and phrases, a study of synonyms and idioms, the paraphrasing of passages and writing out summaries are helpful exercises.

Oral exercises may be given to the pupils in explaining in a variety of ways the idioms and phrases that occur in the text and these different forms of explanation may be entered in the note-books of the pupils, *subject to revision* by the teacher. The pupils cannot be expected to remember all that is done in the class and the note-books are intended to serve the purpose of after-revision. The explanations should be elicited from the pupils and improved and amplified by the teacher before they are written down in their note-books. Exercises of the kind will by degrees enable the pupils to acquire a facility for independent explanation which is the chief purpose to be served in composition lessons. They reduce to a minimum the tendency to cram and to reproduce the texts *verbatim* in the answer books. The teaching of text-books as an aid to composition on the lines herein suggested, though prolific of incalculable advantages, involves tremendous labour and difficulty; and many teachers lose heart over the business, and seek consolation in condemning the method outright.

Two possible criticisms which I anticipate may be easily rebutted. It may be urged that too many notes lead to cramming and that the

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teacher does everything himself leaving nothing to be done by the boys.

The first objection may be answered thus:—The notes referred to are not manufactured in, and imported from, the alien territory of the teacher's intellect; but they are the indigenous product of the pupil's own brain-work under the guidance and supervision of the teacher who is guilty at most of a finishing touch.

Notes cannot lead to cramming. The notes or explanations are presumably much simpler than their original in the text-books. The notes elicited from the pupils are the product of their own intelligence which the pupils understand much better than the more difficult originals found in the text-books. Withhold the notes; the originals must inevitably run the risk of being crammed up.

The second objection may be met as follows:—In the process of eliciting explanations from the pupils much is done by the pupils and little by the teacher who only leads them to self-help. The teacher is only the superintendent of the workshop of which the pupils form the artisans.

Extra reading.—Unless extra-reading is conducted under the guidance and supervision of the teacher, the pupils are likely to misconstrue phrases and passages and to freely import into their composition irrelevant and unsuitable phrases tending to render the composition absurd. Extra-reading should be controlled by the teacher; he should ask the pupils questions on passages likely to be misunderstood by them. He should at times require the boys to make the abstract of the books they have read.

Other aids to composition are the following:—

1. A literary union under the control of the teacher.
2. A dictionary of idioms, distinguishing those suited to serious composition, those used in polite conversation, familiar phrases, slang,

Americanisms, Scotticisms, obsolete phrases, and the like.

3. A glossary of appropriate prepositions and common English verbs with idiomatic prepositions or adverbs or both.

4. A book of idioms special to the various branches of administration, special departments of study, special trades or vocations in life, old manners and customs, the learned professions, social and domestic circles, games and other amusements, etc.

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THE SCIENTIFIC MIND—ITS NATURE AND PREPARATION.

THOSE good old days are gone when the knowledge of Science in its various branches was the absolute privilege of a highly-equipped few who had, either the natural gift or the exceptionally good fortune to come across great world-teachers, whom, they tried their level best to please, in more ways than one: by living with the Gurus in the Gurukulavasam, by implicitly obeying their ever-so many errands and attending to their domestic needs until the ripe time came when it pleased the Gurus to condescend, after trying the discipline-pupils in all desirable conditions, to teach them as much as they could grasp in the best manner suited to their acquirements. Such a system had advantages of its own and disadvantages too, judged from the modern stand-point of educational theory and practice.

In the past, in this land as well as in the Continent of Europe when classics and theology formed the staple of a liberal education the science-master of a good school might be represented by a writing and a cipher master. The parents did little towards the children's education, entrusting the whole responsibility to the teacher to whose lodgings pupils from different places flocked viewing with each other as to who arrived first at the school. These teachers paid very little attention to the shaping of the æsthetic sentiments of the children, leaving them, in their turn, to the charge of the so-called monitor whose word was law. But now-a-days the teacher is no longer dreaded but he is a friend, playmate and father. At school and in the play-ground, at work and at play, he is loved by the children and they approach him, not with any fear of punishment but as naturally as they would to their parents confident of his love. Accustomed as they are to the free kind of intercourse which prevails between teacher and pupil at school or in excursions they do not quite get back even during the most uninteresting class, into the attitude in which our grand-fathers

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stood as boys to the autocratic classicist; for good or for evil the Omniscient Dominie is fast disappearing from our civilization. Dogmatism and iron rule are words of a bygone age.

THE AGE OF NURSERY DISCIPLINE.

Next we have the stage of nursery discipline of the old school, wherein the children are "to be seen" and "not heard." About this ideal nothing need be said now except that it is inadequate to prepare children for entering into the right relation with science teachers. The old rule to the boys "*speak when you are spoken to; do what you are bid and you will never be chid,*" is of no use now. Experienced Science teachers of the foreign lands whose opinions alone we are able to gather (from their writings) are of opinion that this old sort of nursery discipline, i.e., what may be called the speak-when-you-are-spoken-to training, sent up children to their classes unable to enter thoroughly into the relation which they wished to enter into and establish which, is found to afford the best condition for imparting and imbibing a conception of the scientific method.

If science is making children too wide awake to think that there is any merit in *believing* what they are told and in *doing* as they are bid, as it most assuredly is doing, then it is bound to set about helping parents to organise such discipline as shall prepare children, to judge what is worth believing and to obey their own higher selves: two things which the undisciplined careless can never do. Science teachers will be guilty of grave neglect if they allow any slipping between two stools to take sanction from our supposed example. There comes a stage in the second or third year of every child's life when he is anxious to carry verbal messages; this phase can be taken much advantage of, to train him in one or two habits, which it is difficult to acquire at a later stage and the lack of which hampers the development of the scientific faculty. How are such habits to be formed and what are they at different stages?

All of us are familiar with the daily phenomenon how young children are eager to carry simple messages to their mothers or brothers. As soon as the child brings the clear and crisp report of having given his message properly after correction by us we may at once restore whatever he may have had in his hands—a toy—before you sent him on this or that commission; this habit of withdrawing all possible sources of distraction before business begins and restoring whatever you deprived him of, directly the business is completed is of importance. "This," says Miss Bobb, "answers the same purpose as is fulfilled later by making a child put, for instance, a big A opposite the final answer to a sum. All these precautions help to induce the habit of knowing when a mental cycle is completed, a duty fulfilled and an incident closed." Next day the message may be varied in the material of the lesson to keep the routine exactly until it becomes quite easy and mechanical, until mere fact of being called to a lesson at once throws the child bodily and mentally into the attitude of stand-at-attention; after that we may tell the child to say 'thank you' to the person who gives anything to him and so on. In this way the ethical and the logical side of the child's mind may be developed with this caution that the habit of alternation of attitude is the important one to set up with a view to a scientific comprehension of things, and it will be evident from the above that the parents can, if educated, exert the right sort of influence in preparing the young minds and paving their way to the goal. Hence the first desideratum is that parents-teachers should form a clear idea of the scientific mind and know in what consists the preparation for it.

What is the scientific mind? The typically scientific mind may be described in the words of an eminent author as "one which stands in a definite relation to the 'As-yet-unknown-truth' especially to that portion of it which is just below the horizon of knowledge." In

proportion as a mind is non-scientific the occurrence of an unfamiliar phenomenon stimulates it to form some immediate classification or judgment and in proportion as a mind is scientific, the occurrence of a new phenomenon tends to set it vibrating with a consciousness of coming revelation and to start a certain cycle of mental attitudes which varies in duration; each phase of the cycle may occupy a few seconds, nay months, or even years but the tendency to fall into some such sequence at the touch of a new fact or a new phenomenon is what constitutes the essentially scientific condition.

A study of the psychology of the child's mind tells us that the mental attitudes of the mind which are brought into play are homage, attention, observation, analysis, antithesis, synthesis, contemplation, effacement, repose, judgment or classification. It might be, of course, impossible to direct the studies of a child strictly in accordance with any such sequence as the above, exercising each of these; yet a good deal may be done towards scientific elasticity by setting up the habit of rhythmic alternation of attitude. And if a child is to be prepared for science, says a practical teacher, something of reverence should always accompany the impact of the As-yet-unknown."

There is a principle which has been formulated in scientific treatises on the art of study, such as that of Grady, and which is so recognised in circles where science is being evolved as to be held a matter of course, and that what is most necessary for children to learn is not what is the last new theory about any phenomenon but how to extract the truth from a series of impressions and statements each of which is only partially true. This principle is the key to the most essential element in a truly scientific method of study; and the case is worth analysing for it illustrates the grave error into which the advanced section of the profession fell in passing from the ancient ideal of an education based on

classics to the modern ideal of education based on science. The advanced section of educationalists when they discovered that fixed rules of grammar are not, as used to be thought, sufficient mind-food, substituted not the eternal truth of mental passion but up-to-dateness.

In classical learning it is eminently desirable to secure that the right impression shall be made from the first and wrong impressions shall have as little time as possible to deepen themselves. We wish the child's eye and ear to become accustomed from the first to welcome the right and reject the wrong; we do not wish him to gain any habit of tolerating wrong impressions. But in science there are and there can be no absolutely right impressions; our minds are not big enough to grasp any natural fact as a whole; everything depends upon drawing right conclusions from combinations of impressions, each of which is in itself inadequate and partially misleading and if the pupil is got into scientific methods, that is what he must be trained to do. And in order that he may learn to do it, it is sometimes necessary that each of a succession of wrong impressions should have time to register itself on the brain and become part of its available stock.

Some of us may be tempted to think that in mathematics there are no tolerated and mutually corrective errors. The space at my disposal does not admit of my entering fully into that question but I can confidently say that mathematical method is the typically and perfect scientific method in which the warp and woof of polar partial apprehensions are so fine and so perfectly woven that the texture is, so to speak, hardly visible to the naked eye; but it reveals itself on close analysis of the procedure and indeed it was by means of the mathematical investigation that the principle underlying all true scientific mental action was brought to formulation. The difference between teaching science and training in scientific methods is well illustrated in the teaching of Botany and Biology which involves destruction by dissection

as experiment. Children inherit from their monkey ancestors an abundant supply of inquisitive destructiveness; the quality which needs educating, i.e., educating is revered patience to stand still and watch other creatures living their lives. Science has been evolved by the balanced action of these two faculties or powers: the natural monkey inquisitiveness and the educated spiritual reverence. To over-cultivate the destructive curiosity is a cheap way of enabling children to make a show in science experiment but that sort of thing has no tendency to induce the habit of true scientific method which depends on alternation of opposition. If a child is to be initiated into scientific method its early studies must go in the direction of balancing its natural destructiveness by learning to foster life and to study patiently the development of living things. Of course this ideal is very difficult to be followed in towns where the study of Botany can be carried on only by means of cut-flowers. But a good deal might be done by teaching children when they see a flower either growing or in water, not to touch it till they have learnt all they can of its poise and mode of growth so as to be able after dissecting it to reconstruct in their minds an accurate picture of how it looked before they disturbed it.

Next let us proceed to examine the theory that the children shall be told nothing but be made to find out things for themselves. What scientific habit does claim in this matter is that a clear line of demarcation shall be preserved between what the individual has observed and what he has learnt at second hand. The claim that the children shall be told nothing but find out everything is obviously absurd. No man can find out for himself all he wants to know; for instance how could any individual find out by himself the earth's movement round the sun?

What the scientific method does claim is that no child shall be told anything about the motion of the earth till he has observed many sunrises

and sunsets, till a clear sense impression of the earth standing still and the sun moving east to west has become organic with him. This registering of a wrong impression is what, in science, we have to secure at first before we can build it up, whereas in the study of language we have to prevent it even at the outset. It is the teacher's business to ensure that his pupil's mind shall register that impression before being disturbed by the intrusion of one derived from more recalcitrant investigations. If indeed the child were to make blunder from mere carelessness, he would immediately lead him by questions to see the error. Scientific education, says a writer, is not arrived at and can never be arrived at by young pupils being crammed at schools and colleges with ready-made knowledge and left to find out after adult life and its duties have come upon them, that they are still ignorant of how to learn what they now need to know.

An individual gets his information about any external object from a variety of sources: his own observations on facts; what he learns on more or less reliable testimony as to what others have observed; theories, some true, some false, which have been held by human beings to account for the facts; and his own thinking about the facts. The essence of the scientific method consists in keeping the produce of the three external sources of information apart in the mind till the lid is shut down, so to speak, on the outer world and the process of thinking has begun. Not till he has thought in silence, not till the different kinds of knowledge derived from various sources combine to form a mental impression, can true scientific action be said to have taken place. Taking a concrete example, suppose a youth gazes at the starry heavens till he gets himself absorbed in an impression of their varying aspects; that is instructive but not scientific. But when, as aforesaid, the child has registered and formed for himself a clear undisturbed impression of the earth's unmoveableness and the apparent motion of the sun and then has read that astronomers believe that the earth goes round the sun and the sun does not go round the earth; if he then puts together in his mind the two apparently conflict-

ing statements—that made by his senses and that, made by his book and lets them combined to create in him an impression which shall embrace both, then the scientific act has taken place in his mind and he has readily done a bit of true scientific work.

It is on this basis that practical work has been made compulsory in our High Schools. In the Laboratory the youth is helped on to observe for himself. In private study he reads or has read text-books in which are recorded the observations made by others and in the demonstration classes the teacher or the lecturer narrates the history of the successive stages of development in the explanation of those phenomena either before or after the practical work. Of course every student worth the name, takes time occasionally to think on the ideas conveyed to him from various sources.

Next comes the question of the special difficulties which lie in the way of introducing true scientific method into elementary teaching. The foremost of such difficulties is the fact that the faculties of a child are easily fatigued and the nature of his work must be constantly varied. We cannot give him an afternoon in the laboratory, a whole hour talking about any subject or a long walk, or mental thinking: the attitude, the mode of thinking, the mode of study, the subject and all must vary every few minutes. Children must be drilled into the power of learning exactly what it is that other people have said; for those who lack this power lack the continuity which is the cause of human progress and the condition of truly human thought.

It is not claimed that, by instituting such methods, the cultivation of the scientific habit makes pupils specially learned people, nor that it makes them specially pious or specially good citizens, it is simply the condition of the scientific discoverer. It may be that man becomes more erudite even about the subjects commonly known as scientific by learning what has already been discovered by others, than by trying himself in habits favourable to discovery. All that such methods can claim is that the most likely man to discover the unknown truth is that one, whose

mind falls spontaneously into the scientific rhythm at the touch of a strange phenomenon, an unknown fact, or a new emotion. To achieve all the aforesaid objects, the chief necessity is to get the best teacher "the best teacher being one who is usually a thorough-going enthusiast in the science itself and who in the intervals of regular teaching gets his pupils to assist him in his own investigations or pursuits."

We come now to the preparation for physical science: for instance in hydrostatics "the child may be made to dabble in water with hands and feet, in warm water and cold, in salt water and fresh, as much as is safe from the health point of view. Let the baby have things to float in his bath, sticks, shells, toys, of wood and so on; what is wanted is to get his finger tips, so to speak, quivering in response to the tremor of water at various temperatures and densities and moving in various ways. All these physical expressions pass up to the brain and produce some impression there. They do not constitute knowledge but form what scientists call the *unconscious material* which, when he comes to study Hydrostatics later on, will make his knowledge living and real, not shadowy.

Then comes the training of what is called mathematical imagination. It has been well said that the teacher who would educate the mathematical imagination of pupils must begin by cultivating his own. This as well as the other training of the child's mind depends mainly on Nature-study and sequence of development in the various stages. Especially the cultivation of this kind of imagination depends chiefly, upon the child being put into the right attitude towards mathematical conception in his earliest years; after that on the right use being made of certain nodes or critical points, which occur here and there in each branch of mathematics and which should be dealt with in a quite different manner from the rest of the course.

THE "MORAL SENTIMENT."

Then comes the cultivation of moral sentiments in pupils. This is the most essential training which every branch of science in the

High School or College Curricula of Studies should give and give effectively too. What we mean by the phrase moral sentiment is but "a sense of duty or that desirable mental attitude of an individual towards one whom he regards as a high authority and whose influence he feels binding upon him and to whom therefore he yields his willing obedience." This description of moral sentiment applies to it in the developed form and in developing it from the earliest beginnings, the influence of the whole should play a very important part and then there should be a hearty co-operation between the school and home.

Children are by nature swayed in their actions by purely chance impulses. This is the starting point for developing their sentiments. They, however, soon find that while some of their actions are approved by their parents, others are condemned by them. The natural love which children bear for their parents' commands and their restrictions is indispensable, that their wayward impulses may receive an effective check. This is the first step in the advance. The second step is gained by them to a high degree when they realise the unpleasant consequences which they bring upon themselves when they participate in forbidden actions. A third step is gained when the child finds the wishes of the parents being respected and obeyed by other members of the family and a good check is thus put upon the child's impulses and he comes to learn that the only way of eliciting the parent's sympathy or favour is to adopt mannerly conduct. From this it easily follows that the teacher's authority at school should be founded upon love and sympathy and the pupil should be made to feel that they should by no means displease the teacher for whom they should ever entertain an affectionate regard. Again at school the pupils should realize to a greater extent that they are all members of a well-ordered community and as such they have all to conform to certain rules of discipline and they have all to co-operate together in the best interest of the school as a whole; for what is co-operation but a synonym for a determination to control one's own impulses for the sake of a common good. Lastly the development of sympathy for which social life at school affords ample opportunities leads further to the whole sacrifice of personal impulses and the exhibition of disinterestedness and when the power of intelligence and reflection is developed a good deal, the sense of moral obligation becomes most refined and the individual becomes a very useful member to the society at large.

V. R. SANTANAM,

THE FUNCTION OF FREE PLAY IN THE KINDERGARTEN.

THE literal meaning of the term 'Kindergarten' is the garden of children; it is so called because those who want to educate children according to this method allow the children free scope for their natural development by not interfering too often with their world of work and play, joy and sorrow, freedom and activity. Just as the gardener is sure that by sowing a certain seed, he can get a certain plant and no other, so also the teacher here is sure that by those mild and gentle methods at his disposal, the child must grow into a robust and healthy being, having an optimistic view of the world and filled with energy enough to combat the hardships of later life.

The watchwords by which the teacher here is to guide himself are those of Froebel, the founder of the Kindergarten—self-activity, creativeness and continuity. Though at first sight these terms sound high and pompous, on analysis we find that they mean nothing more than the following few directions:—Arrange your education in such a manner that without your goading, the child may be active from its own inward impulse. Do not give directions to the child at every step of its procedure. Allow its own creative faculty to come into play: and only when you think that it is liable to injure himself or others should you interpose with your direct commands. Thirdly, never be under the impression that childhood is something different from boyhood and boyhood something different from manhood. The development of man is one continuous process, and if at all we have divided it into different stages, it is merely for the sake of convenience; as a matter of fact, there are no such sharply divided stages to be easily distinguished, one from the other.

If we just ponder for some time over these directions of Froebel in the Education of Man we think that he has expanded only the root meaning of the term 'Education' itself. Education is derived from the Latin *e*, out and *duco*, to lead; in other words, the chief aim of edu-

cation is to lead out the innate faculties of a person and this happily for us coincides with the noble definition of Swami Vivekananda that 'Education is but the manifestation of the knowledge already in man.'

Granted so far, it readily follows that free play is almost a necessity in the education of the child; for, it is but the outward symbol of the buoyant life within. In this connection, it is well to bear in mind that play in the case of infants is something different from play in the case of adults. Men and women have a set purpose, that is, they either give rest to their tired brains or otherwise consciously regard it as a pastime merely. But in the case of children, free play is the very life of their being. While in the case of grown-up persons, it is only a means to an end, this is not so with children: they have no further purpose in view than to be purposelessly active.

Such being the inherent necessity for free play in the case of children, he acts very unwisely who forbids them from their play. Such reprimands would eventually lead to the stifling up of the mental powers of the child and stunting its faculties throughout life. On the other hand, infuse it with a purpose and you may lead him on by gradual steps to the loftiest and noblest of human virtues. In this, as in other cases, freedom is by far better than repression.

Some people are at a loss as regards the methods of encouraging free play. Although no definite plans can be laid down for this purpose, a general outline may be given of the salient points to be noted by the teacher. The child may be engaged in forming fresh and ever-new objects from heaps of sand, in imitation of temple-towers, or deep and dark caves: it may be asked to model a cube or other simple figure out of wet clay; or it may be given a piece of paper and some coloured pieces of chalk so that it may be drawing what it will on the piece of paper. Naturally it will try to draw the figures of the concrete things in the rooms where it

lives; and however remote may be the likeness between the drawing and the actual figure, this method is bound to make him something of an artist. Plants and flowers, as well as the household pets are also useful things to play with: and in such cases besides the ordinary benefits, it can learn something of sympathy and love for the animal and vegetable world. Threading beads or arranging them in fancy forms is another important way; for this calls forth the imagination and if we watch the babies at these occupations we may be surprised at the ingenuity displayed in some cases. 'Froebel's Gifts' are specially meant for children and for those who can get them, it would be an excellent suggestion.

Benefits apart from delight are also accruing to the child in such free play. Unconsciously, it gathers a good deal of knowledge by the way: especially in the richness of its imitative faculty, it has learnt the difficult processes of keen observation, using every one of its senses. What is more, the knowledge thus gained is the more lasting and the more valuable owing to its pleasant association of ideas, and the joyous vista of memories it calls forth.

In many cases, free play involves the company of several other children (as in the familiar games 'Hide and Seek' or 'Dancing Round the Pole' etc.) and this is its initiation into the etiquette of society and the unwritten laws of good behaviour and good manners. The child learns how to move among its equals, asserting its own rights without at the same time interfering with those of others.

We all know that our life is not a path strewn with roses; there are many hardships to be encountered in later life, however fortunate and well-placed one may be. And so, it is better for us to start children on their race of life provided with an unfailing fountain of joy and happiness and this cannot better be secured than by the abundance of free play provided for them.

While thus it is beyond doubt that free play

affords delight and instruction to children, it is no less true that it is of even greater benefit to the teacher. The first proviso for becoming a good educator is that one should love children and learn to play with them. If this intellectual and emotional sympathy is once secured, the teacher may well add to his store of knowledge by observation from the ways of children. Child Psychology is a vast and unexplored field yet and many of the mistakes in the treatment of children are to be attributed to ignorance rather than wanton cruelty. And so, any little light thrown on this all-important field would be a boon conferred on humanity.

Secondly, if there is any one in the world who more than any other is fitted for leading a pure and innocent life, devoted to the realisation of the noblest ideals, it is the Teacher. Far from the madding crowd's ignoble strife he can lead a life of serenity and sanity: and being in daily contact with the latest born of God's creatures he has an opportunity of daily improving his code of Ethics with this perpetual reminder in the beaming little faces of the youngsters before him. Regarding himself as a providence on a smaller scale for the lives of the children entrusted to his care, he may well have the approbation of his conscience which comes from all true and noble work nobly done; and with the perfect certainty that he has contributed his mite to the progress of the world, he may leave a model for imitation enshrined in the grateful hearts of thousands of the younger generation.

N. R. KEDARI RAO.

COLLOQUIAL ENGLISH*—A Review.

Mr. P. T. Srinivas Iyengar, M.A., L.T., Principal of the Mrs. A. V. Narasinga Rao College, Vizagapatam, writes to us:—Will you kindly allow me to use your columns to draw the attention of those teachers who are disposed to make experiments in new methods of teaching English to a book recently published by Messrs. W. Heffer and Sons of Cambridge. The book is called *Colloquial English: Part I, 100 Substitution Tables*, and is by Harold E. Palmer, author of *Manuel d'anglais parlé*, etc., and joint author of *French Substitution Tables*. The author defines 'substitution' as "the process by which any authentic [as opposed to constructed, perhaps faultily, by the student himself] sentence may be multiplied indefinitely by substituting any of its words or word-groups by others of the same grammatical family and within certain semantic limits." For instance take the type sentence ("authentic," as the author would say), "I saw two books here yesterday." "It is evident that the word *two* may be replaced by any plural numeral adjective; that *I* may be replaced by any noun or pronoun designating a person or animal capable of seeing; that *here* may be replaced by any appropriate adverbs of place; that *yesterday* may be replaced by any appropriate adverb of times; that *books* may be replaced by any plural noun representing any person or object capable of being seen in a particular place." One to whom English is a foreign language, once he has successfully memorized the above sentence, can convert this sentence into hundreds of others by memorizing a few "substitutive elements" and ring the various

* *Colloquial English, Part I*, by Harold E. Palmer, (W. Heffer and Sons, Cambridge). 2s. net.

changes possible on the type sentence. It is claimed by the author, not without truth, that even English people learn at an early age the intricacies of their own language by some such process of unconscious substitution, and thus gradually master nine-tenths of the grammatical material of their own tongue before even knowing the meaning of the term *grammar*. The same thing consciously done, is held up by the author, as the easiest method by which a foreigner can learn English rapidly and accurately. For this purpose, Mr. Palmer has constructed a series of tables capable of being used for this kind of substitution-work. The number of sentences that can be evolved out of a few original ones is remarkable indeed. Thus from the four sentences, "I saw two books here yesterday," "You put three letters there last week," "We left a few keys on the table on Sunday," "They found some good ones in this box this morning," can be framed by substitution of appropriate words or phrases so many as 4096 "perfectly rational sentences." The construction of a series of tables of sentences like the above without "any important omissions or transgressions against the principle of frequency," requires considerable skill and the author claims the present books to be "the outcome of a long period of work and of tentative experiments. The infinite choice of words and of group-words and the infinite possibilities of their distribution and combination, together with the problems attendant upon their co-ordination and compression into a book of digestible proportions, can only result in a work which, although complete enough for all practical purposes, must from its very nature be infinitely completable and perfectible." The author has with much skill and ingenuity gathered the

most frequently used English words and word-groups and provided for a really useful course of what is for all practical purpose, a real grammatical drill, which will enable the student to avoid the importation of the idiom of his own mother-tongue into his English. The author has printed his tables in the phonetic spelling and has also given an "orthographic text." I think that teachers who may be inclined to use this book in their schools may best begin with the phonetic text and go on in proper season to the orthographic one; as the author says, "Differences of opinion exist as to the right moment to introduce the orthographic form. Some teachers would work exclusively with phonetic script for a year, and then, considering that it has duly played its part, would henceforth make exclusive use of traditional orthography. Others would use both forms simultaneously. Neither of these extremes give the impression of soundness; probably the ideal course lies somewhere between the two. A safe principle to adopt is to withhold the orthographic form of any given table until it has been thoroughly memorized and concretized. When the pupil can reel off a few dozens of the combinations fluently, and has learnt their meaning, no harm can be

done in introducing the traditional spelling of that particular table; the good habit will have been formed and the orthographic burlesque will be powerless to undo it." But I do not see there is any harm in teachers who are not acquainted with the phonetic script working with the orthographic text in the IV Standard or I Form after the pupils have had one year's course of English. The great defect of our school work is that it does not provide ample opportunities of drill in grammatical forms and sentence-structure, a judicious course of substitution-exercises, will just provide that want; I say judicious, because, after all, the substitution-exercises savour something of the deadly dull exercises which an older generation—though of adult students—wrestled with in a painful attempt to acquire foreign languages under the guidance of Ollendorg and Prendergast and a fanatical adherence to the substitution drill may drill all intelligence out of pupils. The substitution exercises are not foreign to the reformed methods of teaching English advocated in the "Reformed series of English schools for Indian schools," now pretty largely used in the Madras Presidency; and Mr. Palmer's Tables can be used as a supplement to the first or second book of that series.

SOCIAL LEGISLATION UNDER HINDU GOVERNMENTS

BY

PROF. S. KRISHNASWAMI AYYANGAR, M.A.

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Triplicane, Madras.

LORD HALDANE ON THE TRAINING OF THE NATION.

AN IMMEDIATE TASK.

Viscount Haldane turning to the notice on the paper, said the country was engaged in a tremendous struggle in which our life and freedom were at stake. But the war which was going on was not the only struggle in which the country was engaged. There was a larger rivalry, a rivalry, more peaceful, less obvious, less rapid in its progress, but not less decisive, if we were to hold our own and maintain our place. In that rivalry knowledge, skill, and foresight were as much required as they were in the war. We must turn to that task now, because we dare not be caught unprepared. Although the struggle might not in the main rest on the shoulders of those who were growing old, still they not the less had a tremendous responsibility and a great duty. They had to do their utmost to prepare the future generation, intellectually, morally, and physically, to endure the strain they would have to face. We had done a great deal in the past, we were doing a great deal in the present, but other nations had been coming up and devoting themselves with an assiduity and a science which were in excess in some respects of our own. It was in that excess of assiduity on their part that the danger to us lies.

SCIENTIFIC DIRECTION OF OUR ENERGY.

He held his countrymen in some respects higher than the people of any nation he knew, but where we had been lacking was in the scientific direction of our abundant energy, and in order to obtain that scientific direction training and education were necessary of a kind which we had not yet known, which other nations were putting in practice, and which, if we did not learn and apply we should find ourselves inevitably left behind. The real difficulty that we had to face was that we had never been ready to take up new ideas. A great teacher and preacher, to whom this country owed more than to any other man,

Matthew Arnold, told us some 50 years ago that our inaptitude for taking up new ideas was a danger which we must train our minds to overcome if we were not to fall behind in the rivalry of nations. For 20 years he had been himself interested in education, and had done all he could, both in and out of office, to advance that cause, often with very indifferent success. It was a matter of satisfaction to him that so much progress had been made since the beginning of the present century, but if we had been making progress other countries had been making progress also and more rapidly than we had.

He was not talking of any particular nation. It was sufficient for him to take two neutral nations—Switzerland and the United States of America. Switzerland put us to shame in respect of her national system of education, and in the United States there was a keenness and activity about the whole subject which we would do well to take note of. Our problem was to make education interesting by showing the great need there was for it and by showing what it meant, not only theoretically but practically. It meant not mere examination, but the training of the mind in the widest and most comprehensive sense, so that the youth of the country might be able when the time came to turn, it might be to science, it might be to the humanities, or to any of the thousand and one subjects which were covered by the field of knowledge in the 20th century. Lord Cromer was keenly interested in the preservation of the position of the humanities, and he agreed with him about that. But some aptitudes lay in realm of science, and it was necessary to take account of different aptitudes and train men according to their aptitudes.

IT WILL COST MORE.

It would cost a good deal of money, but it was an expenditure on which they dare not economise. It was an appalling fact that in this country 90 per cent. of our young persons got no further education after 14. What chance had they? Take

the most formidable enemy country with which this country would have to enter into acute rivalry after the war was over,—Germany. He was not taking Germany because he had any special admiration for the German system. On the contrary, it had several great defects, but it had also some great virtues, and he did not wonder at the German government of to-day for keeping up its expenditure on education in view of the tremendous effort she was going to make to wrest the markets of the world from us as soon as the war was over.

SECONDARY SCHOOLS.

There was a great difference between this country and Germany in the matter of secondary schools. In Germany they were the strongest point in the educational movement. They were thoroughly organized and virtually, though not nominally, compulsory. The preliminary studies, which encroached upon the time of our Universities, were completed in Germany in the secondary schools. It was, however, a defect in the German system that a hard-and-fast line was drawn between various classes of the nation—the aristocratic class, the middle class and the democracy. We were more fortunate in this country. We did provide means for not merely the small 10 per cent. getting up the educational ladder, but the children of the working classes, if they had exceptional aptitude, could obtain by bursaries and scholarships the benefit of secondary education. As secondary education was the strongest point in the German system, it was the weakest point in ours. The problem of the secondary school was one of the most pressing we had in this country. Our public schools were in some respects remarkable institutions. They had the power to train boys to be rulers of men. But increasingly science and the application of science were becoming a necessity for the training of a very large number of our people. But they were discouraged because nearly all the scholarships in the Univer-

sities were allocated to the professions. It was not enough to do anything short of reforms which would improve our training system itself—the quantity and quality of the teachers—and make education more interesting and comprehensive, so that when boys wished to go forward to a particular industry and science, they might go with their minds so trained that they might be able to take up and absorb the scientific ideas which they were to put in practice.

LACK OF EXPERTS.

We suffered in this country from want of experts. It was no use telling manufacturers to employ more chemists; we were not training them. Our training machine was not adequate to produce the supply we required at this moment. There were only 1,500 trained chemists in this country, although, on the other hand, four German chemical firms who simply played havoc with our trade employed 1,000 chemists. To take another instance, an expert calculation showed that by proper means we could produce in this country the whole of the motor power which we used from one-third of the coal we actually consumed in doing so. Another calculation was that in the various stages of consumption and of the making of by-products we wasted as much coal as would pay the interest on 500 millions after the war. It was not that we had not got experts; for it was a great mistake to suppose that we had not got men of the highest science and knowledge, but we had not enough individuals possessing that science and knowledge to go round.

He had spoken apparently somewhat gloomily of the situation, and he would turn for a moment to the great progress that had been made. Since the beginning of the century ten new teaching Universities had been called into existence. London had become a teaching University, but much remained to be done there, though it was not for the want of trying that they had not got further. The others were Birmingham, Liverpool, Manchester, Leeds, Sheffield, Bristol, the

Armstrong College at Durham, and two teaching Universities in Ireland. That was a great step forward, and, given time, and above all, some improvement in the system of secondary schools, so that they might send up pupils prepared to benefit by University training, we should get an immense deal out of it.

HAMPERED BY RELIGIOUS CONTROVERSY.

A good deal had been accomplished by the Education Act of 1902 and previous Acts, and we should have accomplished more had we not had the religious controversy mixed up with education. He had always felt that if we had been sufficiently keen about education we should not have had any religious controversy. In Scotland, where people were keen about education, very little was heard about the religious controversy. He could not help thinking that here there was a load of educational sin on the backs of some right rev. prelates and also on some Non-conformists; but the real sin educationally had been the indifference of the average Englishman who did not care much about education and was very much bored with it and left the matter to be turned into a controversy. We had now reached a period when the nation was taking a far larger view of the matter. One striking thing which filled him with hope was that we were now thoroughly awakened to the necessity of action. Everywhere we saw the most magnificent public spirit. People were ready only not to contribute their money and pay taxes, but the sons and daughters of all classes were ready to throw their energies and abilities into the production of things necessary to ensure victory. That spirit was going to stay and was going to influence us profoundly, and we should be influenced still more profoundly, by those who came back from the war. If that were the national spirit, then he thought it might be possible to do justice to both sides of the education question. The interest in the continuation-school system was growing, and people were becoming aware of the peril to which we were exposed from the

want of a system for training the son of the workman in the expert knowledge he required if he was to attain a high place in his industry.

APPALLING FIGURES.

Our present position was really appalling in regard to the waste of talent, owing to the denial of the opportunity of development and training. He had got some instructive figures from a high authority. In England out of 2,750,000 boys and girls between the age of 12 and 16, only 1,100,000 got any further education after 13. Of the remaining 1,650,000, the great bulk were educated only for a very short time, mostly in elementary schools up to the age of 14. Only 250,000 went to proper secondary schools, and they were there only for a short period in most cases. Thus quantity as well as quality was deficient. Between the ages of 16 and 25 there were in England and Wales 5,350,000 who got no education at all; 93,000 only had a full time course for a period which was generally very short and 390,000 had a part-time course in evening schools. Those were appalling figures. What chance had we against other nations which go on a different plan, and thereby had the power and knowledge to stimulate industrial capacity and activity? In England each year 18,000, and in Scotland, which did much better, 7,770, entered University institutions. That was a deplorable stage of things. A great responsibility would rest on our rulers if they did not take the lead in availing of that vast reservoir of undiscovered talent, which might contain men and women who would raise the genius of the country in every walk of life.

PHYSICAL AND RELIGIOUS TRAINING.

It was impossible to speculate as to what would be the organization of the future Army of this country. But whatever system was adopted, whether it was a purely voluntary system or some compulsory form, we should be much the better if we attended to the physical side. It was essential, if we were to have a complete system of elementary education, that physical

training should be looked to. He should like to see the Boy Scouts made an integral part of the training of the elementary schools. This country owed far more than it knew to Sir R. Baden-Powell in his great discovery of the Boy Scout system. Then, coming to the secondary schools, we should like to see Cadet Corps training made compulsory up to 17 by 18. When they came to the University they had the work of the Officers' Training Corps, which afforded an opportunity to every man of talent to qualify himself to become an officer. He was quite sure also that there could be no comprehensive system of national training which would fit the rising generation to bear the burden that would fall upon them, if ethical and religious training were left out of the school.

In conclusion, he deprecated any dilatory action and said we had to act at once. We in this country disliked thought before action. When we had no competitors we made our position by energy. What was necessary now was energy directed by high science.

PRACTICAL SUGGESTIONS.

If he were asked what could be done practically, he would suggest that a Minister should devote his whole attention to certain things. The last year as the elementary schools should be improved, continuation schools developed, and the teaching of the secondary schools improved. Then there was the question of freeing the University from preliminary studies, which ought to be carried out in the secondary schools. Lastly, there was physical training in the schools, which he thought might be introduced without friction and without delay. If money was spent on these things it would come back a thousandfold. We were face to face with a new order, and our old methods would avail no longer. The sands were sinking in the glass. When the war was over the struggle would be on us almost immediately, and at present we had taken no adequate steps to prepare for it. He recalled to the House the

lines of Shakespeare beginning "There is a tide in the affairs of men," and concluded:—Let us not lose the tide!

THE CLAIMS OF THE HUMANITIES.

The Earl of Cromer said it would be deplorable if the result of the interest now being taken in educational subjects was that the discussion degenerated into an undignified wrangle between the advocates of science and the humanities. To the best of his belief the highest and best authorities both on the humanities and on science were fully agreed that they should arrive at some fair compromise which would conciliate the claims of the rival schools. He would be the last person to underrate the value of science and scientific training. But they must never forget that there was a vast difference between instruction and education. Instruction furnished the intellect with knowledge; education, properly so called, trained character. He had no wish to put the claims of the humanities too high. He agreed with Professor Freeman that the classics should be the objects of a reasonable homage and not of an exclusive superstition. But when he observed, as happened at a meeting the other day, that some of the extreme advocates of science were prepared to deny the classics any claim to be formative of character, he must enter an earnest protest. The classicists were under a great disadvantage in dealing with this question. They were often asked what was the good of reading the Odes of Pindar or the Ethics of Aristotle—what use it would be to a young man in after life. Unless an answer was given which proved the case as a proposition was proved in Euclid, the classicists were considered to have incurred a direct defeat. He could conceive nothing more disastrous than place the whole education of the country on a strictly utilitarian basis.

THE TRAGIC MISTAKE OF GERMANY.

The total moral collapse of Germany was one of the most extraordinary, and he thought, rightly

considered, most tragic events recorded in history. Side by side with a great advance in material prosperity and scientific knowledge there had been a vast deterioration of character. He could not help feeling that one of the causes of that deterioration was that the atmosphere created by humanistic study had lost its hold upon German public opinion. The whole national mind of Germany had apparently become materialized. That was what he would fear if not sufficient attention was paid to humanistic, particularly classical education in this country.

WHAT GERMANY CANNOT DO.

The real value of classical and humanistic education was not so much to turn out a few men of deep learning as to create a certain atmosphere of thought and to give the whole upper educated mind of the country a certain direction and tendency. It was frequently stated that the educational system of this country had been almost a complete failure. He would not say it did not require very great revision, but he could not admit that it had been so great a failure as some people seemed to think. He had seen young men from our Universities at work in the Nile delta, in the sands of the Sudan, and in Bengal and Burma and in the remote portions of the Himalayas and it was very rare to come across any one of them who was not "capax imperii" in the very best sense of the term. He could not convict our education system of failure. Could Germany produce anything of that sort? Could Germany produce the incomparable Imperial agents which were to be found all over the British Empire? He replied most emphatically, she could do nothing of the kind. A distinguished German had admitted sorrowfully before the war that although their Universities turned out men of very varied accomplishments they were quite incapable of producing that invaluable product of this country, an English gentleman. A humanistic training and study was by no means inconsistent with

the pursuit of more practical employments in life. A great many instances might be quoted of distinguished military men who in the exercise of their professions obtained much advantage from their classical studies.

CHANGE IN AMERICAN THOUGHT.

Nothing struck him so forcibly when he was in America some years ago as that the education of the women was vastly superior to that of the men. All the young American men from 16 and 17 upwards seemed to be thinking of nothing but of turning "the almighty dollar." Since that time he believed a considerable change had come over American thought. The greatest thinkers in America had become alive to the danger of materializing the minds of the nation, and the result was that Harvard and other Universities were year by year turning out an increasing store of invaluable works on classical literature.

Referring to the examinations, he said it had been often said that the arrangements unduly favoured the humanities and disparaged the sciences. He was not prepared to deny or confirm that, because it was not a matter that could be judged from the examination papers. It was by no means a simple thing to form an opinion. It required an expert fully to understand what conclusions could be drawn from the actual number of marks assigned. He thought it would be a good thing if a small departmental Committee were appointed to examine this question and bring out the facts.

UNIVERSITY REFORM.

On the question of University reform he spoke with some hesitation. He had not the advantage of a University education in early life, a fact which he had always regretted, and he felt that it would be impossible to deal with this subject thoroughly unless it were taken up seriously. He thought the present moment was singularly opportune for taking it up. In normal times it excited much party feeling, but in the present circumstances,

with a Coalition Government, the question might be gone into on its merits without raising the party storm which it would probably have raised in other times. He was told that the governing bodies of the older Universities would be inclined to adopt reasonable and liberal reforms but that they would object to drastic changes. He hoped the Government would introduce legislation on the subject.

Then there was the further question of compulsory Greek. He thought it was admitted by almost all who had gone into the question seriously that compulsory Greek would have to go; but he believed there would always be a sufficient number of young men in this country who, partly from literary taste and partly from a wish to ponder over the deeper problems of life when they came to years of discretion, would turn to the literature of ancient Greece for advice. He suggested 16 as the proper age at which to begin learning Greek. Personally he did not begin the study till he had long passed the schoolboy age, but his advice would be, "Do not begin too late." As to the method of teaching dead languages, his view had been that they should be taught as living languages. That was already done in some schools and might well be adopted in others.

As to financial considerations, he held that it would be false economy to stint education, but he was bound to confess that he very much feared that our financial situation at the end of the war would be such as would render it impossible for us to spend as much money on education as many of them would certainly like.

THE POLICY OF DRIFT.

The Bishop of Winchester said the House was indebted to Lord Haldane for a comprehensive and stimulating speech, and no one could doubt that it was most timely. We were beginning to hope that the time might not be so very far distant when we could turn our backs on these dark and lurid years of war and look to the future. But the future would not be less difficult than the

past had been. It would soon begin to challenge us in the most peremptory manner. He thought the objective upon which they ought to concentrate almost all their thoughts was the case of young people between the ages of 13 and 18. There was the key of the question. If that point were carried other things might be left to follow. If such a thing could be conceived as the members of the House forming themselves into an association there would be none more practical or beneficent than a "13 to 18" association. Our failure to deal adequately with the case of those young people was to a significant degree part of the policy of drift to which we had been so much addicted. We were now disposed to accuse ourselves as a nation of not having thought as we should have done in many things. Certainly thinking had not been one of our strong points. That want of thought was to blame for the numbers of those young people who had gone on the downward grade, to the wasting of the good and moral worth that was in them to the country and themselves.

Speaking as one who had been a Bishop in South London, he was speaking against himself in regretting that they had not compelled the country to deal with this question before. It was one of his duties in those days to visit the reformatory camp at Redhill. He saw there boys recruited from the Police Courts who in their athletic games were as fine specimens of young Englishmen as the public schools could have produced, and he wished that some of those boys who had not been convicted of offences were there to benefit by the admirable training. Their aim should be to do for the young of other classes what they should resent not being done for the young of their own class.

GERMANY PAINFULLY EFFICIENT.

Whatever else Germany had been, they would all agree she had been painfully and frightfully efficient. No doubt she would be talked of a good deal in the future, by some as an example

and by some as a bogey. Probably it might be said to the noble Viscount who opened the debate "You have been trained in ideas from Germany; we want no German ideas; and by supporting your argument by German examples you only discredit them in our eyes." The answer of the noble Viscount very likely would be that his critic was content with things British and wanted nothing else, just as the Germans were content with things German and wanted nothing else. At any rate, it was improbable that we should not welcome efficiency in the future. He thought they might take it for granted that in the future there would be larger place for scientific teaching, and a larger place also for physical training not merely for the greater development of the body but because of its value from the point of view of discipline. He believed that the State and the State alone could adequately deal with the problem.

GERMANY AND SPIRITUAL LIFE.

The noble Viscount reminded them that they must not only train youth on the practical side, but also attend to his moral and spiritual life. They were apt to distinguish between the material side of human things and what they called the spiritual side. Looking at the type of German education one could not say that Germany had neglected the spiritual side. Was there ever a nation more sentimental than Germany? And yet when the test came German sentiment had proved the most fragile of all influences for restraining the policy of the nation from things which had shocked the world. It might almost be said that German sentiment had culminated in an awful climax in the "Hymn of Hate." Again, with reference to the ideals with which philosophy dealt, was it not true that the German professional mind had proved equally powerless to hold Germany back from the paths which she had followed? What was wanted was something of sovereign power, something which claimed to control and guide the ideas and sentiments of men as much as it claimed to control their passions or their material aims.

To conform to that description there could be only one thing, and that was religion—faith in a Fatherhood which gave value to every individual life and a Providence which shapes the career both of nation and of men.

LORD BRYCE'S VIEWS.

Viscount Bryce agreed that this was the time when, if ever, we must consider what should be done to see our house in order in every way. In his view Lord Haldane had drawn too dark a picture of our system of education. He believed that the English Universities performed the function of teaching people to think as well as any Universities in the world, though he did not deny that they were capable of improvement in some ways. The extraordinary efficiency which Germany had shown was largely due to causes which could not be reproduced in this country. It was largely due to the German habit of obedience, in learning which the German lost a great deal of that initiative, independence of spirit, and free individuality which belonged to the people of this country. He did not deny that we might combine a much better organization with the retention of our individuality and initiative. That was a great problem for us to consider. But if we were to sacrifice our independence and individuality for the sake of attaining a more perfect and efficient organization and acquire the habits of submission and obedience which were ground deeply into the German nature, we should make a bad exchange. At present money was not so much wanted in education as its proper application. We were spending an immense sum on education, and a good deal of it was not well spent. What did need improving was the teaching; and that could not be done without making the teacher's career more attractive. The Germans did not make the mistake of excluding literature in favour of science in their educational system; indeed, he had often heard it stated that German experience had been that boys who had gone through the classical side of their schools did better in after-life than those who had received direct scientific instruction in the schools. He did not share the view that there was a lack

of scientific experts in this country. There would be more experts if there were more demand for them but the business community in Great Britain unlike the business communities in America and Germany, did not appreciate sufficiently the important effects which scientific discovery and the application of science to their industries might have upon their business, enabling them to increase their output and their profits. One cause of the deficiency of our educational system was the lack of interest on the part of parents in the progress of their boys' studies. No doubt a great deal of the boys' interest which might be given to study was diverted to athletic sports. This was the case in England more than in the other parts of the United Kingdom, for Scottish, Welsh, and Irish boys generally showed a greater desire for knowledge than did the average English boy.

He hoped that the crisis through which we were passing would rouse us to set our educational house in order, and that the sense which we had obtained of some of our deficiencies and a knowledge of the efforts which we should have to put forth, after the enormous expenditure of money and the great loss of life in the war, would rouse the nation to do more for education, to think more about it and to set greater value upon it. This was essential if we were to retain our position in the world.

சாணக்ய சாகஸம்

அல்லது

சந்திரகுப்த சரித்திரம்.

ஸ்ரீமதி வி. பாலமணி அவர்களால் இயற்றப் பட்டது. விலை ரூ 1, தபால்சாரி பித்திரியேகம். வேண்டுவோர் அடியில்கண்ட விலாசத்துக்கு எழுதி பெற்றுக்கொள்ளலாம்.

ஸ்ரீமதி வி. பாலமணி,

"விவேகோதயம்" பத்திராதிபர்,

85, பெல்ஸ் ரோட், திருவல்லிக்கேணி.

XXII

CALCUTTA UNIVERSITY.

SENATE MEETING.

A meeting of the Senate was held at the Senate House, College Square, on Saturday the 19th instant. The Hon. Dr. Dava Prosad Sarbadhikari, Vice-Chancellor, presided and there was a large attendance of Fellows. The meeting lasted for four hours and a quarter.

TAGORE PROFESSOR OF LAW.

The Registrar placed before the Senate, for adoption, the following recommendation of the Faculty of Law, dated the 14th June, 1916: "That Mr. Kashi Prasad Jayaswal, M.A. (Oxon), be appointed Tagore Professor of Law for the year 1917, and that the subject of his lecture be "Manu and Yajnavalka—a comparison and a contrast."

The Hon. Mr. Mohendra Nath Roy moved and Sir Asutosh Mookherjee seconded that the recommendation of the Faculty of Law be adopted.

Mr. Archbold said that he understood that the Government had some objection against Mr. Jayaswal. Was that objection still in existence? Before they voted on the subject they were entitled to know whether the Government of India had expressed any opinion on the subject. Had that objection against him been withdrawn or not?

The Hon. the Vice-Chancellor said that they had no information on the subject before them.

Mr. Archbold: Then we cannot vote.

The Hon. the Vice-Chancellor: No one is called upon to vote if he has any objection.

Mr. Archbold: Then I oppose the motion.

The motion was then put to the vote and carried.

UNIVERSITY BUDGET.

Sir Asutosh Mookherjee moved that the Budget estimate for the year 1916-17 be adopted. He said that in rising to move for the adoption of the Budget, which had been framed by the Board of Accounts and approved by the Syndicate, he was obliged to ask the Senate to relax the provisions of Section 4 R, Chapter 1, of the Regulations, which restricted the mover of a motion to speak for fifteen minutes only.

The permission having been granted Sir Asutosh said that that was the second occasion in the history of the University when the Budget came before

them for sanction. On the last occasion they directed that the Board of Accounts should frame rules for the preparation, presentation and observance of the Budget. Those rules had been drafted, but they were not yet ready for submission to them. On the present occasion they would see that the Budget was much fuller and more elaborate than that of the last year. He was convinced that more elaboration was necessary and the Board of Accounts was taking steps to present before them even fuller accounts than that. On the present occasion the Board asked the different Departments of the University to prepare their Budget and each Department looked into the matter from their own point of view. The Board of Accounts considered those Departmental Budgets and had submitted them for their approval. They would see that the Budget was divided into two divisions, namely, the University as the teaching institution and the University as the examining institution. Then there were private funds for carrying out the work of each institution. Sir Asutosh then explained in details the expenditures and incomes under the various heads and said that they would probably ask him how they really stood. He was sorry to tell them that he could not present to them what could be called a prosperity Budget. But he thought that that was enough to meet their immediate needs. There was a closing balance, as they would see, of Rs. 17,916. He did not think that there would be any real difficulty in the next twelve months. He had, however, two observations to make and would appeal to the Syndicate, who were their executives and were charged with the administration of those funds. He hoped that they would not take it in any different spirit from that in which that appeal was made to them. During the next twelve months their funds would have to be very cautiously administered and not new projects would be undertaken which involved financial responsibility. If however, any new scheme came up the money would have to be raised either from the Government or from the general public. More than that the Syndicate would have to be very cautious till the 31st of January next year. Their main source of revenue was the fees derived from their students. It was very uncertain and the expenditure for which provisions had been made, had been made on the

assumption that there would be a specified number of candidates at various examinations. He appealed to them to be very cautious till all those monies had got into the coffers of the University. Whatever could be till the beginning of February next should be deferred. He made those observations because during the last twelve months, although the funds had been very carefully administered, one or two things had happened which made them very anxious. If they followed his advice and were careful, speaking for himself he would say that there was no cause of anxiety.

Mr. Archbold in seconding the motion said that they should observe economy, because after the war they would have a tremendous depression. Under the present financial condition of the University they should be friendly with the Government of India because they depended a great deal on the Government of India. That was the reason when the motion regarding appointment of the Tagore Professor of Law was proposed, he said that they should have consulted the Government of India. It did not seem to him the exactly right thing to do.

The Hon. the Vice-Chancellor said that the Budget was now open for debate.

Mr. Turner said that he did not think that the Government of Bengal would pay Rs. 10,110, which showed a closing debit balance in the Students' Mess Fund.

Mr. Hamilton said that there was no doubt that they needed economy, but he thought it was unwise to seek economy in every direction such as in the equipment of their library.

Mr. Mitchell confined his remarks to the college of science. There he saw opportunities for waste and it needed a business man at the head of it to see that that money was properly spent.

Mr. J. R. Banerjee said that it was very well to say "appoint a Principal for the College of Science." But where was the money to come from? So far as matters stood now every details were minutely looked after and there was not the least chance of any waste.

Mr. Kumudini Kanto Banerjee said that they had been getting grants from the Government of India for the last five years for Professorships. He wanted to know as to whether any publication of lectures had been made out of that fund.

Dr. Watts said that no money was more profitably spent than the expenditure on the students' messes.

Dr. Howells referred to the non-appointment of the Principal of the Science College and said that the University was not setting a very high standard for the colleges. He regretted that things were permitted to happen in the University which were not allowed to be permitted in the Colleges. It was stated that they were in need of funds. He suggested that the students' fees should be raised. Referring to the appointment of the Tagore Professor of Law he said that an appointment like this should not have been made without any reference to the Government of India.

Sir Gooroodass Banerjee referring to the remarks made by the last speaker regarding the raising of the students' fees enquired did Dr. Howells know how the students paid their fees.

Dr. Howells: Yes.

Sir Gooroodass Banerjee: I am not presenting an exaggerated picture. They really go from door to door begging. It is a fact. Are we to raise the examination fees in order to have the luxury—the dignity of having a Principal? If there are good Professors, who can co-operate and co-ordinate this work, there is no need of a Principal.

Mr. Mahalanobis said that at present they were not in the least in need of a Principal for the College of Science, because they had a Director at their head and he was no less a person than Sir Asutosh Mookherjee, regarding whose business capacities there could not be any question.

Dr. Dwarka Nath Mitter protested against the suggestion made by Dr. Howells to raise the students' fees.

Sir Asutosh Mookherjee in reply referred very briefly to the points of importance raised by various speakers. Referring to the remarks of Mr. Archbold, he said that he agreed with Mr. Archbold so far as the observance of economy was concerned. As regards the remarks made by Mr. Archbold and Dr. Howells regarding their relations with the Government of India, Sir Asutosh said that he entirely agreed with the former that their relations with the Government of India ought to be friendly. They had a duty to discharge and if they did it manfully, he did not think that any superior authority should take any offence. Regarding what Mr. Turner

said he hoped that the Vice-Chancellor would be able to persuade the Government of Bengal to give them the Students' Mess Fund if not now, at least when the financial condition of the Government was better. He entirely agreed with Mr. Hamilton's remarks. Regarding the enquiry made by Mr. Kumudini Kanto Banerjee he said that the Government of India had not been giving them grants for the last five years, but only for the last three years. So far as the publication of the lectures was concerned he informed the enquirer that some of the lecturers had published their lectures not at the cost of the University but at individual costs. As regards the appointment of a Principal for the College of Science he informed them that two University Professors, whom they had secured, namely Dr. P. C. Ray and Mr. Raman, in the Department of Chemistry and Physics were very good practical business men. Over and above that it was very difficult to get a competent man to act as Principal to supervise the works of the best men they had obtained. It was useless to get an ordinary man and the appointment of an ordinary man would make matters very difficult. There again they had no funds. If they had funds, instead of appointing a Principal he would have spent that sum in appointing two more Professors.

The Hon'ble the Vice-Chancellor in summing up the debate referred to Dr. Howells' remarks regarding the raising of the students' fees and said that considering the conditions of the students it was practically a useless suggestion. As regards the relations between the University and the Government of India, he informed them that there never were relations between them and the Government of India more cordial than at present. Only the other day the Educational Member was present in Calcutta and he was surprised at the amount of their success with such a limited resource.

The motion was then put to vote and carried unanimously.

UNIVERSITY COLLEGE OF SCIENCE.

The next important item was to resume the postponed debate on the following motion of Professor C. J. Hamilton, M.A.:—"That for better provision of Scientific and Technical Education, it is desirable that in connection with the Calcutta University, a University College of Science should be founded

upon lines similar to those adopted in the case of the University Law College and that the Senate appoint a Sub-Committee to draw up a scheme for its constitution."

The Hon'ble the Vice-Chancellor said that Mr. Hamilton had authorised him to ask permission of the Senate to withdraw that motion at that meeting so that he might bring it in at the next meeting of the Senate.

Sir Asutosh Mookherjee: The withdrawal cannot be permitted without the sanction of the Senate.

Mr. Heramba Chandra Moitra moved that Mr. Hamilton be permitted to withdraw his motion.

The motion was carried.

Some formal items of business having been gone into, the meeting separated.

Reviews and Notices.

OUTLINES OF JAINISM, by JAGMANDERLAL JAIN, M.A. (CAMBRIDGE UNIVERSITY PRESS,) pp. 156. 4s. net.

This book which has been issued by the Jain Literature Society is, in the author's own language, a brief but accurate and authoritative sketch of Jainism, a thorough exposition, as Mr. F. W. Thomas says in the preface, of the system and its terminology in a moderate compass. Based on the author's exposition of the subject to Brother H. Warren in England, it is a very valuable and practical manual which gives us a good idea of the religion in the four-fold aspects of *theology*, *metaphysics*, *ethics* and *rituals*. Before the actual analysis of the system under these heads, however, the author gives a short but valuable *history* of the creed and its fundamental doctrines. In the chapter on *theology* (I), Mr. Jagmenderlal sketches the fundamental principles of Jainism,—the dual personality of man, his imperfection, his capacity to control material nature. Incidentally the various types of the free souls are described. The Jain ideas regarding *Jivajiva* (soul and non-soul), the six substances, the five magnitudes, the seven kinds of Karma, the seven principles, the nine padārthas, are stated and explained. In Chapter III which is devoted to *ethics*, he enumerates the 12 duties of the Jain, the eleven *pratimas*, and the important underlying principle of *Ahimsa*. The Chapter (IV) on *ritual* is the smallest in the book and barely mentions the four-fold sources of knowledge, *Nāma*, *Dravya*, *Sihāpana* and *Bhāva*. From page 38 to 143 the book is devoted to extracts and transla-

tions of passages from the Jain scriptures to illustrate the author's analysis in the first part. There are five appendices,—the 1st on Jain logic, the 2nd on Jain cosmogony and cosmology; the 3rd on the 63 celebrities of Jainism; the 4th on the qualities of the five grades of saintly souls; and the 5th on Jain canonical literature. The last of these is of high value; and indeed the whole book is well calculated to serve the purpose for which it has been designed, namely, to serve as the introduction of a series of translations and authoritative texts to be issued by the Jain Literature Society. The index, the analytical tables and illustrative diagrams enhance the value of the treatise, while the binding and print are neat and attractive.

SANSKRIT RESEARCH. (JANUARY & APRIL 1916).

The double number of this excellent and scholarly magazine is the source of a regular intellectual treat. Its appearance has been rather tardy, but the delay has been more than made up for by the quality of the contributions. The place of honour is given to a long and erudite dissertation on the evolution of the conception of *Pranava* or *Om* in Sanskrit Literature by Mr. N. D. Mehta. The author takes us through the realms of comparative theology, the Vedic rituals, the Brāhmanic sacrifices, the Upanishadic metaphysics and mythological philosophy, and traces the theological and spiritual significance of the word in each. He concludes the article with the expounding of *Om* as a means of contemplating on the Supreme Being and as a means of knowing the identity of the individual soul with that Being. The second article is that of Mr. K. B. Deval on the *theory of Indian music* as expounded by Sōmanātha, a learned scholar and musician of the 16th century. On the basis of the *Rāga-vibhāṭa* of that writer, Mr. Deval makes a detailed study of two questions which form the basis of Hindu musical theory and which "have until now been misinterpreted and misunderstood,"—namely the recognition of harmonics by ancient Sanskrit writers and the relation of a 'Sruti to the musical scale. The treatment is highly technical and covers 68 pages. The able paper on *Ayurvēda* which Kavirāja Gnanatha Sen read on the occasion of the foundation-stone-laying of the Benares University is then reproduced. The scope of the *Ayurvēda*, its history, its lost literature, its achievements, its present conditions and necessities are set forth in an appealing manner. The *Pursuit of Chemistry in Bengal*

PUBLICATIONS RECEIVED.

Reformed Series of English Books for Indian Schools, by J. A. Yates, M.A. and P. T. Srinivas Iyengar, M.A., L.T. Bombay: Longmans. Re-1-8-0.

The Elements of Geometry in Theory and Practice, by A. E. Pierpoint, B.Sc. Bombay: Longmans. Re. 1-4-0.

A First History of India, by J. Nelson Fraser, M.A. Bombay: Cooper. 12 as.

Bible Lessons for use in Zenānas and Women's Classes, by Edith M. Annett. Madras: C. L. S. 5 as.

The Qur'anic Doctrine of God, by Rev. W. R. W. Gardiner. Madras: C. L. S. 5 as.

The Experiences of the War, by Mrs. Moffat. Madras: C. L. S. 1 1/2.

Macmillan's New Senior Class Readers. Book I, 1s. 4d.; Book II, 1s. 6d.; Book III, 1s. 6d.; Book IV, 1s. 6d. London: Macmillan.

Progress to History Series, edited by Richard Wilson, B.A., D. Litt. Stage I. Pictures of Long Ago, 1s.; Stage II. Peeps into Old Books, 1s. 2d.; Stage III. Desisive Days in British History, 1s. 4d.; Stage IV. The Story of the United Kingdom, 1s. 6d.; Stage V. Children of the Seven Seas, 1s. 9d.; Stage VI. Britain and European Liberty, 2s. London: Macmillan.

A Short History of the English People, by John Richard Green. London: Macmillan. 5s. net.

Test Questions in Junior Algebra, by F. Rosenberg, M.A., B.Sc. London: Clive. 1s. 3d.

Scott's Lady of the Lake, by A. R. Weakes, M.A. London: Clive. 1s. 6d.

The Essentials of Teaching, by T. J. Burnett, M.A. London: Longmans. 3s. 6d. net.

Books Received from the P. T. I. Book Depot, Bangalore.

The Golden Age of Myth and Legend, by T. Bulfinch. London: Harrap. 7s. 6d. net.

Tell Me Why Stories about Animals, by G. H. Clandy. London: Harrap. 3s. 6d. net.

Stories for the Story Hour, by Ada M. Marziale. London: Harrap. 2s. 6d. net.

Toy-Making in School and Home, by R. K. and M. I. R. Polkingorne. London: Harrap. 7s. 6d. net.

The Jolly Book of Box-Craft, by Patten Beard. London: Harrap. 8s. 6d. net.

School Hygiene, by Leo Burgerstein, Ph.D., LL.D. London: Harrap. 8s. net.

by Dr. P. C. Ray and the *Scope of Architecture as a Fine Art* are the themes of the next two articles. Mr. P. K. Gode's article on the art, style and versification of the *Mahabharata* is a work of patient research and well deserves the prize to be afforded to its author. There is no article in this number in the Sanskrit section, but in place of it there has been issued, as a supplement, the text (with notes and commentaries) of 'the inspiring Pāli work,' the *Dhammapada*. All antiquarians and scholars will welcome it.

HOW TO TELL STORIES TO CHILDREN, BY SARA C. BRYANT. (HARRAP & COMPANY) 2s. 6d. net.

This is quite a timely publication. Story-telling has recently been made to serve such a variety of at best secondary uses—most stories are of the science-made-easy kind—that there is real need for stress being laid upon its true and proper function.

The story-teller, it must be understood, is an artist at his work; it is the function of the story to give joy and through it to stir and feed the life of the spirit. After a clear exposition of this main purpose of a story, the authoress sets forth the virtues of the different types of stories, and the influences, that, by their means may be brought to bear upon children. Three stories, specially chosen for consideration, as being admittedly the most favourite, reveal the main qualities, characteristic of stories that can be most satisfying and appealing to the child mind. A great deal, however, of the actual success in telling a story will depend upon the resourcefulness of the teacher, her ability to suit the details to the varying needs of the audience of the moment, and more than all, upon her being in tune, so to speak, with the essential emotion of the story.

A chapter is added on the specific school room uses of story-telling, and there is a goodly collection of stories at the end.

The book affords delightful reading; the writer would seem to be a gifted individual, and one is struck with the ease with which she is able to see the secret workings of the child mind and heart.

Indian Educational Notes.

We are requested to publish the following:—
RESOLUTIONS PASSED AT THE TRICHINOPOLY DISTRICT
EDUCATIONAL CONFERENCE HELD IN MARCH 1916.

Resolution I.—This Conference respectfully recommends that, with a view to make education really efficient in this country, provision be made for raising the status of the teaching profession by adopting the following recommendations among other means:—(a) provision for a Pension, Provident and Insurance Fund managed or controlled by Government for the benefit of teachers in all recognised institutions; (b) increase of the teachers' pay on fixed and ear marked salary grant systems and by the introduction of a fixed scale of salary in all recognised schools; (c) special privileges be conferred on teachers such as exemption from profession tax, formation of electorates composed of teachers within the respective areas to return a member to a Municipal Council, to the District and Taluk Boards; (d) conferring by Government of titles of honour and distinctions on teachers or grant of jaghirs to the same for long and meritorious services.

Resolution II.—This Conference is of opinion that the use of English as the medium of imparting instruction in Indian schools is a great disadvantage in the matter of the acquisition of real and useful knowledge and retards the diffusion of the same among the people at large; and that therefore the vernaculars should be gradually made the media of instruction in non-language subjects in Secondary Schools, English continuing to be taught as a compulsory subject. That this resolution be communicated to the Director of Public Instruction and also to the Headmasters and Managers of all Secondary Schools.

Resolution III.—That in the opinion of this Conference it is high time for Government to appoint Medical Inspectors who will periodically visit schools with a view to examine the sanitary and hygienic conditions of schools and to advise as to how the children receiving instruction be made physically fit to do so.

Resolution IV.—That in the opinion of this Conference, the results of the Ootacamund Conference convened by Government to fix the maximum of salary for clerks in the different branches of the Public Service should be extended to the Urban and Rural Primary Teachers.

Resolution V.—This Conference requests the Director of Public Instruction and the University of Madras to allow *bona fide* teachers to apply in private for all the University Examinations as in Bengal, the United Provinces, the Punjab and other provinces and thus gradually to increase their general educational qualifications.

- General Chemistry, Part I, Principles and Applications, by Lyman C. Newell, PH.D. Boston: Heath. 5s.
William the Conqueror, by Rene Francis, B.A. London: Harrap. 1s. 3d.
Oliver Cromwell, by Estelle Ross. London: Harrap. 1s. 3d.
Sir Walter Scott, by Amy Cruse. London: Harrap. 1s. 3d.
English Literature in Prose and Verse from Cowper to Lander, by Edith L. Elias. London: Harrap. 1s.
Selections from Carlyle, by Samuel B. Henningway, PH.D. and Charles Seymour, PH.D., Boston: Heath. 2s. 6d.
More Picture Stories, by Constance Foxley. London: Harrap. 6d.
Advanced Texts in French Composition and Grammar, by J. M. Milne, M.A. D.Litt. London: Harrap. 1s.
Fighting Girt, by Ernest Hood. London: Harrap. 1s. 8d.
Harrap's Readers Beautiful, by Constance and Katharine Johnston: Primer I, 3d.; Primer II, 4d.; Infant Reader, 4d. London: Harrap.

Books from Messrs. George Bell & Sons, London.

- Bell's Simplified German Texts: Deutscher Sagenschatz, by F. W. Wilson, PH.D. 1s.
A Concentric Grammar Course, by Dulcie E. Haas. 1s. 6d.
Recits Heroiques, by M. Charles Guyon. 1s. 6d. net.
Revision Papers in Arithmetic, by C. Pendlebury, M.A. 1s.
A Shilling Arithmetic, by J. W. Robertson, M.A., B.Sc. 1s. 4d. net.
Commercial Arithmetic and Accounts, by A. R. Palmer, B.Sc., B.A., and J. Stephenson, M.A. M.COM., B.A. 5s. net.
L' Histoire de Peter Pan, by Daniel O'Connor 1s. 6d. net.
Bell's Shakespeare for Schools, edited by S. P. B. Mais, M.A. Romeo and Juliet, 1s.; King Richard III, 1s.; King Henry V, 1s.
Bell's Six Penny English Texts, edited by S. E. Winbolt, M.A. Poems of John Dryden, 6d. Prose Selections from the Works of John Dryden, 6d. Spenser's Faerie Queene, Book V, 6d.

RECOMMENDATIONS OF THE TRICHINOPOLY TEACHERS' CONFERENCE OF APRIL 1915 IN REGARD TO THE SECONDARY SCHOOL LEAVING CERTIFICATE SCHEME.

At the Educational Conference held on the 24th April 1915, in Trichinopoly, under the auspices of the Trichinopoly Teachers' Association, a paper on the "School Final Scheme in Secondary Schools" was read by Mr. M. M. Balakrishna Aiyar of the Board High School, Kulitalai, and in the discussion which followed the reading of the paper, it was generally agreed that the School Final Scheme as worked at present, was not quite satisfactory for the following reasons:—1. The subjects of the B Group were neglected. 2. Sufficient importance was not attached to the study of vernacular. 3. The grouping of subjects required a rearrangement. 4. Specialisation began too early. 5. Marking took up much of the teachers' time, which was, after all, neither uniform nor quite reliable. 6. The season at which the examination was held was unsuitable for intellectual work, the weather being very hot at that part of the year.

The Conference, therefore, felt that some recommendations should be sent to the Government as well as to the S. S. L. C. Board, and passed the following resolution:—

Resolved that the following gentlemen do form themselves into a Committee to consider the working of the S. S. L. C. Scheme and submit proposals to Government and the Department re the rearrangement of subjects in the three groups, the adequate representation of experienced Headmasters and Assistant Masters in the controlling and examining boards, the relaxations of the rules of admissions to Colleges for average students by alternative percentages and total number of marks, the desirability of maintaining the supplementary course as it is and the change of the dates of examination:—

Messrs. S. K. Devasikhamani, B.A., L.T. (Convener), G. Sessa Aiyangar, B.A., M. C. Rajagopala Naidu, B.A., L.T., G. Vaidyanatha Aiyer, B.A., L.T., T. V. Swaminatha Aiyer, B.A., L.T., S. S. Vyasa Rao, B.A., L.T., M. N. Balakrishna Iyer.

The Sub-Committee met in the afternoon of the following day in the National High School, Trichinopoly with Mr. S. K. Devasikhamani in the chair and resolved unanimously on the following recommendations:—

I. (a) That, in the IV and V Forms, the following five subjects be taught according to the outlines of a syllabus drawn up by the S. S. L. C. Board to be worked in detail by the Headmasters of High Schools to suit local conditions and requirements:—

1. English. 2. A Second Language—Vernacular or Classical. 3. Elementary Mathematics. 4. History (England and India) and Geography. 5. Elementary Science.

(b) That, in the VI Form, subjects 3, 4 and 5 be dropped and in their place any one of the following

groups of optional subjects be studied along with English and a Second Language:—

1. (a) Algebra and Geometry. (b) Physics and Chemistry. 2. (a) Botany. (b) Physics and Chemistry. 3. (a) History of England. (b) History of India. 4. Any two of the following groups of Commercial subjects, i.e., (a) & (b) or (a) & (c), and so on. (a) Book-keeping and Commercial Arithmetic. (b) Commercial Practice and Geography. (c) Typewriting and Shorthand. (d) Indexing and Precising.

N.B.—1. The above arrangement of optional groups is intended to suit the grouping of subjects in the Intermediate and it is expected that there should be a considerable reduction in the extent and intensity of the present syllabus so that students in the Intermediate course may begin where they had stopped in the Sixth Form.

2. It also provides for a student who wants to enter life after the school course is over.

3. It also allows specialisation to begin in the VI Form which may in a way be regarded as a preparatory class for the Junior Intermediate.

4. It of course implies that satisfactory progress in subjects 3, 4 and 5 in the IV and V Forms is insisted on before granting promotions to boys.

II. That a public examination be held only in the following subjects once a year at the end of the VI Form course:—

1. English. 2. Second Language (Text, Translation and Composition). 3. Subjects in any one of the Groups mentioned in I (b).

III. (a) That the strength of the S. S. L. C. Board be increased to twelve and (b) that not less than a third of the strength of the Board be chosen from among experienced Headmasters of the High Schools in the Presidency. (c) That the selection of Assistant Examiners be confined only to those who are actually engaged in teaching High School Classes.

VI. That the Public Examination be held, not in March as at present, which is most unsuitable by reason of its heat, but in the month of November beginning on the last Monday of that month.

T. V. SWAMINATHA IYER.

G. SETHA IYENGAR.

G. VAIDYANATHA IYER.

M. C. RAJAGOPALA NAIDU.

M. N. BALAKRISHNA IYER.

S. S. VYASA RAO.

S. K. DEVASIKHAMANI (Chairman).

26th April 1915.

The Annual Sports in the Municipal High School, Walajapet.—The sports were conducted recently in the newly-acquired playground under the patronage of Mr. Richards, M.A., I.C.S., Collector of North Arcot. Mrs. Richards distributed the prizes. The occasion was grand, the weather fine and the audience large. The ground was beautiful with seasonal grass, leaves, and flowers for the occasion. The specially-erected pandal was decorated with Japanese artistic festoons, and flags were put up to mark the different plots for different games. Mr. Richards, requested by the Headmaster, made some remarks to the attentive audience in the course of which he said he was satisfied with some success in his attempt to develop the athletic side of education in schools. A sound body is not only valuable in every-day life but essential in standing the strain of responsibilities in after life. He impressed on the minds of the boys that taking part in sports creates a spirit of fairplay and self-effacement as boys will learn to care more for the honour of the school. He was glad to see boys tumbling in a race getting up with a smiling face and thereby making their parents love these sports and not dread them. He wished to see ere long boys in Indian schools winning and wearing colours like the Eleven and Eight of Oxford and Cambridge. It was evident from the earnestness and clearness of his remarks what a keen and model boy he was in his early days. He referred to the interest of the Municipal Chairman, and his colleagues and the gentlemen of the place, and complimented the Headmaster on his organising power and clear head and patience to make the function a success during the short interval. The Headmaster took this opportunity

for thanking all the gentlemen present for their uniform sympathy with the school. With the singing of the National Anthem and cheers to Mr. and Mrs. Richards and the King and Queen, the function came to a close.

The Madras Teachers' Guild.—A meeting of the Mathematics and Science Section of the Madras Teachers' Guild was held in the Hindu High School, Triplicane, on Wednesday, the 28th instant, with Prof. P. Lakshminarasu in the chair. The meeting was attended mostly by Science teachers and the gathering was fairly representative. Mr. P. A. Subramanya Aiyar, B.A., L.T., Head Master, Hindu High School, Triplicane, opened a discussion on 'The Combination of Chemistry and Physics into one subject in the C group of the S.S.L.C. Scheme.' The discussion was long and arguments were advanced both for and against the combination. Among others Messrs. S. Krishnamacharyar of the H. H. School, Triplicane, P. V. Seshu Aiyar of the Presidency College, M. O. S. Anantanadmanaba Rao of the Teachers' College and V. Vaidyanatha Aiyar of the Muthyalpet High School, took an active part in the discussion. At the end of the discussion the following resolution was carried by a majority:—'That this meeting of the Mathematics and Science Section of the Madras Teachers' Guild is of opinion that with a view to give greater facilities to students who take Group I or II of the University Intermediate Course, Physics and Chemistry be combined into one subject under Group C of the S. S. L. C. scheme and that such changes in the course of studies as are necessary to this end, be made.'

In the Press. Will be Ready shortly.

NANDANAR CHARITRAM.

IN EASY TAMIL PROSE

BY

MR. T. G. ARAVAMUTHA IYENGAR, M.A.,

Pachaiyappa's College, Madras.

SRINIVASA VARADACHARI & CO.

Triplicane, Madras.

The Educational Review.

Lord Haldane spoke in the House of Lords on July 12, on the future of education. "the training of the nation and the necessity of preparing for the future" in Great Britain and more especially in England. Lord Haldane finds the weak point of the English educational system in the state of secondary education. It is undeveloped and unorganized as regards number, accessibility, staff and equipment; most of the pupils leave secondary schools at about fifteen years age—more than 90 per cent. of the country's young men, i.e. about 6 millions out of a population of 38 millions. On these figures English critics ask what chances English people have "against other nations who go on a different plan"? The moral pointed out is that England cannot compete with Germany or France in industrial activity unless secondary education is reorganized on sound lines. To the Indian educationist reading Lord Haldane's speech, it will come as a revelation that the object of secondary education is to acquire "the knowledge and power to stimulate industrial capacity and activity." On the contrary the only aim the secondary school teacher in India has before him is to train his pupils to acquire a mastery of accurate English idiom—an aim in which he miserably fails, the net result being the average secondary school pupil closes his school-life branded with failure, proclaimed as unfit for benefiting by a course of English edu-

cation, and, of course, unfit for entering colleges. The aims of secondary school education, according to Lord Haldane, are quite different from those prescribed for Indian schools. "What does education mean but the training of the whole mind in the widest and most comprehensive sense, so that the youth of the nation may be able when the time comes, to turn, it might be to science, it might be to the humanities, or to any of the thousand and one subjects which are covered by the field of knowledge of the twentieth century?" Is it not then the duty of our educationists to thoroughly overhaul their programme of work in the light of Lord Haldane's pronouncement, if secondary school education is not to continue to be an unreal sham? "The ideal of a national educational system" is "an organization giving every single individual a chance to attain a maximum of personal culture and social efficiency according to his natural gifts and the strength of his will." How can this be attained, we ask, if all the time of the student is spent in struggling with the mastery of English idiom in the effort to secure an impossible standard of accuracy and if no time or energy can be spared for a real knowledge of the history and geography of the land, the facts of nature and the laws of their working? Mere linguistic study will never develop in a young man all that is best in him and it behoves our teachers to cast about for ways in which real culture can be imparted to their students." We close

these remarks with some sentences from the review by *Nature* of Lord Haldane's speech, which aptly apply to the state of education in India. "The time is ripe for a great and fundamental change in our methods and means of education. Modern needs demand... that science and scientific training should be given their rightful and due place in the curricula of all grades of schools and in the Universities... The status and rewards of the teacher should be raised and made more attractive... It lies with our statesmen to give effect to these imperative claims and so provide for the best development of the Empire."

For the second time in its history, the Senate of the Calcutta University met on August 20, to debate on the annual budget. The meeting lasted for four hours and a quarter; apparently the Calcutta Senators do not get restive after two-hours' discussion as certain other Senators do and do not believe in disposing of important questions by a snatch vote taken in indecent haste and more indecent clamour. Sir Asutosh Mukherjee in introducing the budget, pointed out that it was divided into two divisions, namely, the University as the teaching institution, and the University as the examining institution, there being "private funds for carrying out the work of each institution." The budget could not, under present circumstances be a prosperity budget and some urgent needs could not be met, like

the appointment of a Principal of the Science College. Dr. Howells severely criticized this omission; while he was quite right in regretting this, we cannot approve of his proposal to find money for this and other exigencies by the raising of students' fees. This proposal naturally raised a storm of protest. Sir Gooroodas Banerji pointed out how students now "really go from door to door begging" for their fees. The Vice-Chancellor remarked that the suggestion was a "useless suggestion," and the idea was given up. A similar motion to increase fees made in the Madras University two years ago met with a similar fate. We regret that in the Indian Senates there are a number of Fellows who wield large influence but who, yet, are singularly indifferent to the conditions of life led by our students, their difficulties and struggles, financial, intellectual, and moral; this is why, perhaps, that, now and then, regrettable incidents crop up.

Judging from the report in the daily press of the speech of the Hon'ble Mr. Srinivasa Sastri to Madura students delivered on August 12, we gather that he was anxious to speak from a lofty platform whence examiners, teachers and students could be seen in their proper small proportions. Spying from this supreme point of vantage students appeared to him to be "ill-prepared material," of vile handwriting, spelling and paragraphing propensities. Teachers and students

ought to feel flattered that a gentleman of Mr. Srinivasa Sastri's exalted position took notice of their existence at least by referring to their prevalent sins and will, no doubt, take to heart his advice not to "misjudge and misunderstand" their examiners and will cherish the admonition conveyed in supreme poetic imagery, not to "use harsh expressions which took longer to forget and which struck deeper and wounded far more lastingly than the proverbial arrow." Mr. Srinivasa Sastri took examiners also under his protective wings and assured his audience that examiners were well-wishers of the students, and had great regard for the educational progress of the country. Only it so happens that no one doubted these statements. The only charge the average teacher brings against the examiner is that he does not realize the difficulties of the Indian student, especially in trying to master English idiom, and the teacher wishes that in appraising the students' work, the examiner will give greater credit for the honest efforts put forth by the students and not merely estimate the worth of their performance with reference to a *pre-conceived* ideal of accuracy; in other words a sympathetic insight into the difficulties of students derived from an intimate intercourse with students and acquaintance with their daily work is the great desideratum and surely it is not wrong even for students to demand such sympathy—it may be in "organized public meetings."

It is most regrettable that the Madras Syndicate figured as a "party" (which, I suppose, is legal slang) in the Madras High Court. Things are badly mismanaged when a University Syndicate, consisting of men who are the flower of culture—of Judges of the High Court, grave and reverend Professors, should become a prey to the passions of the common people, such as drive them to figure in Law-reports. The whole trouble, we fear, is due to the want, on the part of the Syndicate, of a clear perception of its relation to the Senate. The Syndicate is not an inner cabal of the Senate, controlling its decisions and driving it where the Syndicate will. As Sir Asutosh Mukherjee put it in the last meeting of the Calcutta Senate: the members of the Syndicate are the executors of the Senate, giving effect to the wishes of the Senate, in the best manner possible. Mr. Justice Coutts-Trotter has in the following very lucid manner defined the functions of these two bodies:—"The Senate should be the legislative and the Syndicate the executive government of the University, the powers of the Senate being subject in certain matters to the control of the Government; that the Senate should pass general rules in the form of Regulations under Section 25 of the Act and that the Syndicate should deal with the administration of specific matters and the application of Regulations to them. It is, I think, further clearly involved that the Syndicate

should exercise its functions subject to and in conformity with the Regulations." After this clear pronouncement, it is hoped that there will not recur any unseen clashes between the Senate and the Syndicate such as have been rather common recently. The Syndicate has, some-

times, to decide urgent minor questions on behalf of the Senate, but if on all such occasions the Syndicate realizes the spirit of the wishes of the majority of the Senate, there is no reason why any similar incident should take place.

EXTRACTS FROM THE EXAMINERS' REPORTS ON THE SCHOOL LEAVING CERTIFICATE EXAMINATION, 1916.*

FROM THE REPORT ON ENGLISH.

1. *Oral Examination.*—The special features which distinguish the examination in English of the School Leaving Certificate from that of the Matriculation are the oral tests in conversation, reading, and dictation. The great majority of examiners' reports show that these are supplying a stimulus to the study of the language as a living tongue. Headmasters are realizing the importance of these aims in language teaching and are doing what they can to achieve them. Some restrict reforms in method to special devices in the IXth and Xth classes; the results are then disappointing. A minority—their number is increasing—are facing the fact that bad habits of speech once formed cannot be thus easily eradicated: that the use of English as a spoken language must commence in class III and continue throughout the school if satisfactory results are to be obtained in the final examination.

Reading is an art which can be more easily acquired than conversation and it has considerably improved in the past few years. The sing-song intonation is not nearly so much in evidence and the expression is less artificial; but "it is rarely one finds a boy who reads as though he takes an intelligent interest in the subject matter"—he "either declaims or recites in a low monotone," and "his pronunciation is often much at fault." The majority of the candidates spoil their reading by thinking of the process instead of the sense. Thus pauses are made mechanically at punctuation marks, whereas the secret of correct phrasing is to pause briefly after each group of words which convey a clear picture to the mind; e.g., in the sentence, "They buried him at dead of night," there should be a brief pause

after the word "him" although there is no punctuation mark there.

Examiners report that some teachers have improved the pronunciation by special drill in words which previous reports had quoted as commonly mispronounced. The following list culled from the reports of the present year, may be helpful as further examples; it will be noticed that the chief difficulties are with vowel sounds; by for boy, harses for horses, leetle for little, famen for famine, qhooked for choked, aus for us, enimal for animal, boit for height, vater or wäter for water, marning for morning, Fronce for France. In addition to these, initial s, sh, w, f, and v were often mispronounced, and the indefinite article is very commonly given the sound of the letter 'a,' i.e., as in the vowel sound of the word 'day.' There were also frequent mistakes in accentuation, e.g., however, injüre, contingencies, considerable.

A small but important point worth attention is the posture of the reader: "candidates held the book so low that they compressed their throats and read to the floor."

Conversation was much as in previous years. In this part of the work especially we cannot expect much improvement without reform in the junior classes. To quote an examiner: "Some of the boys had to watch their tenses more than should have been necessary, although I must say that most of them when they went wrong corrected themselves at once without any suggestion from me. This seems to me to show that there is too much mental translation going on, and too little thinking in English. This ability to think in English cannot, of course, be properly acquired in the two years of the school leaving certificate course, and can only be attained by steady practice on direct method lines from the lowest class."

Grammar is the chief stumbling-block; the following comment is typical of the reports: "Most of the boys understood what was said to them, and were able to answer with fair intelligence, but many of the most common mistakes in grammar prevailed, e.g., 'I am passed,' 'I am reading since five years,' 'He said that I am in need of money,' 'He didn't found.'" On the other hand a number of examiners report that candidates show some improvement in ability to follow the spoken language: Thus an examiner who revisited a school after an interval of two years says, "Where I was met before with frequent 'Beg pardon, Sirs,' practically all my questions were readily understood."

The main difficulty in conversing with candidates is their poverty of ideas. The average Indian school-boy seems singularly ignorant of even his immediate surroundings. "Practically no boy," says an examiner, "could give me the most elementary word picture of his village, or knew anything about the animals, trees, or plants of his district; and I did not come across a single individual, Hindu or Muhammadan, who really knew anything about the chief religious festivals." "The war," says another examiner, "was naturally our favourite topic, but the conversation revealed the fact that both boys and teachers are profoundly indifferent to it."

The following quotation from a report refers to a matter which although not in the syllabus is relevant to this part of the report: "Boys should stand or sit in respectful attitudes, not lounging lazily or yawning, or scratching themselves." The great majority of candidates do not deserve these remarks; but there are a few schools which might well give more attention to "good breeding, which manifests itself in these numerous things big and little which go to form 'good manners.'"

According to instructions examiners included in the oral test questions on the books read as class texts. The reports reveal an unsatisfactory state of affairs. Some Headmasters prescribe an adequate amount and insist on thorough study: but in the majority of schools the amount attempted is too small. Thus, "The diary shows one period per week to this subject;" "Only six stories from 'Lamb's Tales' had been read," are comments which show how the study of text is being neglected.

A few schools have adopted a valuable type of notebook in connection with the study of text. The pupils enter in this book all new phrases which they encounter in their study of the text,

and also write down in a context all new words; frequently they write the meanings of the phrases in simple English. The work is done at home, and is periodically supervised by the class teacher. This 'word and phrase book' is great improvement on the lists of so-called synonyms. These unfortunately are still to be found, e.g., 'fatigue' = 'a thing causing trouble,' 'venerable' = 'respectable,' 'scroll' = 'parchment' (sic).

Rapid reading is an important feature of the school leaving certificate course. It is done well in some schools, but these are in the minority. The complaints of examiners are that too little is attempted, and that the prescribed matter is treated as rigidly as 'text,' or teachers go to the opposite extreme and leave the boys entirely to themselves. To quote from reports "It is very evident that the idea held of the word 'rapid' is at variance with the accepted meaning; during the year only 55 pages were read." "The rapid reading books are treated as text books: students do not get enough practice in following the language, and the *raison d'être* of this portion of the course is lost." "Very little has been done, and hardly a boy could give me any satisfactory account of what he had read outside the text during the year." As a guide to schools it may be mentioned that for 'rapid reading' schools should aim at a minimum of about 300 pages of prose in two years; the books selected should be easy enough for the pupils to follow them unaided with the help of a dictionary, and the work should be tested by conversation once a week and by questions in the terminal examinations.

Dictation is receiving careful attention in most schools. The results in the examination were on the whole fair, but in about a dozen schools were extremely poor. "Commas," says an examiner, "are scattered broadcast, often separating subject from verb by their insertion after and not before a relative sentence or some extension of the subject which lies between. If commas are to be used with relative sentences they must be placed both before and after, but I would recommend their omission when they are unnecessary for a proper understanding of the sentence." "In many schools boys were so intent on listening to individual words that they lost the meaning of the passage and wrote nonsense, e.g., 'found of garden in' for 'fond of gardening,' 'was often hurt shouting' for 'was often heard shouting.'" "A certain number of boys wrote 'cot' for 'cart' which is typical of the common Indian mispronunciation of the letter 'o' in such words as 'cot'; the 'r' in 'cart' and similar words is not pronounced by Englishmen but is

* Reprinted from the United Provinces Gazette, August 12, 1916.

only used to lengthen the a." "Failure to grasp the sense of the passage is due in some cases to the fact that in some schools the dictation lesson is regarded merely as a spelling lesson; teachers select passages with as many difficult words as possible, quite regardless of the difficulty of the context: boys are thus disheartened and get into the habit of listening for words instead of trying to grasp the sense of the passage. Dictation is more important as a test of comprehension of the language than as a test of spelling. Many schools suffer from lack of practice in hearing an Englishman. In some schools the Joint Magistrate or a local Missionary has come occasionally to give dictation. This is a valuable help. The visitor has to come for only half an hour a week as the correction of such dictation is left to the teachers.

Writing is on the whole good, but the letters b, d, h, and the letters u, n, v, w, are often indistinguishable.

Some schools show an improvement in the work done by way of written composition in school: but, generally speaking, there is considerable room for improvement both in the nature of the exercises and in the methods of correction. In some schools too little is attempted. In one school only one exercise was done in the course of the year, in another only three, and in several schools there was only one a month. Teachers should aim at one independent exercise a week. Suggestions made in previous reports regarding corrections have been fairly widely adopted, but it should be noted that the pupils' correction should be put in a context which makes it self-explanatory. Thus the correction of the mistake in the phrase 'in exchange of some corn' should be not simply the word 'for' on the left-hand page but the whole phrase 'in exchange for some corn.' The subjects 'A letter to a Belgian boy,' 'Punkah coolies,' 'My chief troubles' are a great improvement on 'Thrift' or 'Female Education.'

Translation as a class exercise has in many schools an undue share of the class time-table, at the expense of free composition, and the oral exercise which is "the combined work of teachers and class" should give way to more independent work corrected by the teachers. 'The class' in an oral lesson usually means only a few of the best boys. Valuable time in the translation lesson is lost in dictating the vernacular passage: this might be cyclostyled and pasted in the boy's note-book opposite his translation.

Mark registers and diaries were in most schools maintained in a satisfactory manner. There are, however, some Headmasters who regard the diary

as an examination record merely, and make no use of it for supervising the staff. The purpose of the diary is to show briefly the teacher's method, to give in outline his syllabus of work for the year and in detail for the term, to record definitely from week to week how much he has accomplished. It is extraordinary how difficult some teachers find it to keep a record which satisfies these simple requirements. The Headmasters' recommendations are this year more to the point than last year, but there are still cases of ill-considered remarks by Headmasters who cannot see that recommendations which are all on a dead level must be discredited by the examiner. Thus one report says, "The Headmaster recommended every student to pass, and the two most derogatory statements he made were 'a little lazy' and 'a little careless.' As a matter of fact nothing was more obvious than that there were some particularly bad as well as some particularly good boys."

The reports of sub-examiners were carefully prepared and in the majority of cases contained criticisms and suggestions which will prove very helpful to the schools concerned.

2. *First written paper.*—The papers were fair, but noticeable differences were observed between school and school. Large cities where English-speaking people abound produced worse essays and general English than smaller stations. The reason is probably laxity in promotion in places where there are several schools. If a boy does not get promoted he takes his name off the register and gets admitted to another school, where he hopes to receive 'kinder' treatment. This practice tends to make Headmasters in the larger towns more lenient.

In the first translation common errors were 'muel' for 'mule,' 'treasury' for 'treasure,' 'robbed' or 'plundered' applied to the money instead of the mule. The association between certain verbs and prepositions was not known. One met 'he had pride for,' 'turn attention at,' 'look toward.' The clauses were clumsily constructed; candidates wrote 'bell in his neck,' 'purses' for 'bags,' 'corns' for 'corn.' The second translation was the weakest part of the paper. Not more than 5 per cent. of the candidates got the idea of 'bad taste,' they wrote, 'out of etiquette,' 'out of manners,' 'out of civilisation.' 'Modest' was rendered by 'shameful,' 'careful of his honour' by 'of no regard,' etc. The pronouns 'he,' 'we,' 'it,' were used as though they were interchangeable; so also the verbs 'will' and 'would.' Great difficulty was found in expressing 'so far as to say,' 'it was

usually rendered 'out of limits,' 'exceed limits,' 'got beyond himself.'

The favourite essay was 'city life.' The results were mediocre. There was no originality, but a monotonous repetition of commonplaces. Each essay went on with the same tiresome praising of education, the same complaint of factory smoke, the same phrases of "good arrangement for water-works." Here and there a boy could write a bright essay, but the bulk were depressing.

The 'Umbrella' essay was quite good. Several boys showed a fair amount of imagination, but many boys lost heavily by describing how an umbrella is made. The same deviation from the subject was seen in the 'Rains' essay; many boys lapsed into descriptions of the monsoon.

The 'Aeroplane' essay was attempted by very few, but those who tried it did well.

The tone of many essays left much to be desired. There was irrelevant piety, unctuous acclamations of 'our benign and gracious Government,' exaggerated praise of the "beautiful sceneries" of bridges.

A common error in grammar is the separation of the qualifying clause from the noun qualified; this results in an inversion of the intended meaning in many cases. 'The' and 'a' are as usual a source of trouble, and many candidates insist on using "each and every" where "all" or "every" is enough. Almost every boy who had occasion to use the phrase "to say nothing of" wrote instead "what to say of."

Spelling and writing were on the whole good.

3. *Second written paper.*—To question 1, the answers were disappointing. Many candidates made little or no effort to understand the passages and seemed to think that anything in the shape of an answer was sufficient. Fully 30 per cent. read "morrow" for "marrow," "quacking" for "quaking." Even in the answers which showed that candidates knew the meaning of the passages there was evidence of great looseness of expression. It cannot be too strongly impressed upon pupils that the meaning must be expressed precisely without ambiguity and without redundancy. Many candidates would have done better in this question if they had taken care to understand the passage as a whole before proceeding to the given phrases. Common mistakes were 'to make up for lost time' 'to compensate the lost time'; 'barring accidents' 'in spite of accidents'; 'made some way' 'found some way.'

The parsing was on the whole fairly well done. In the analysis most candidates mistook the

relation expressed by the word 'where' in the sentence 'where my old friend ...' and the placing of 'having heard' was a stumbling-block. More attention should be paid to making pupils give the meaning of passages in their own words prior to analysing them. Abbreviations in some cases were bad, e.g., 'qualy,' 'clan.'

In question 3 most of the candidates were successful in giving a single complex sentence, but only a few thought it necessary to preserve the correct sequence of ideas and consequently most of the sentences although grammatically correct were either nonsensical or gave a meaning other than that intended by the several simple sentences supplied. The co-ordinate use of 'where' and 'which' was not recognised.

In question 4 'Sir' was the chief difficulty, and 'he told that why' or 'he asked that why' were frequent mistakes.

In question 5 the chief obstacles were 'unanimous' and 'mere'; 'unanimous letters' and 'he is mere a boy' were common.

The answers to the last question were very poor. Only a few candidates seemed to know the meaning of 'in your own words.' The great majority were satisfied with using a synonym here and there, and otherwise preserving the original passage. Pupils should be taught that 'in your own words' does not apply merely to the words, but also to the construction, that they must first seek the meaning of the passage, gather the ideas, and then reproduce them in their own words.

FROM THE REPORT ON ARITHMETIC AND ALGEBRA.

The result is not so good as it was last year. It was due to the want of the so-called routine questions 'in Arithmetic. School boys spend about 12 years in Arithmetic and in the final examination not more than 40 per cent. attempt questions outside simplifications, square root, easy questions of simple interest and discount. Candidates on the whole have not shown good knowledge of graphs and there are few schools where the subject is properly taught. Long questions of Arithmetic expressed in words, popularly known as *Ibarti Sawal*, have frightened many candidates.

FROM THE REPORT ON GEOMETRY AND MENSURATION.

It is gratifying to be able to record further improvement in the general level of the answers sent in this year, as compared with that of the last year. The criticisms made last year seemed to have received, in most cases, due attention and attempts have been made to remove the

defects noted. The answer books were characterised by greater neatness, as a rule, and the logical sequence of the different steps in a proposition were more clearly and systematically brought out. But a larger number of papers still showed that the boys have not had sufficient drilling in the art of dealing with examination papers. In too many cases the answers to two parts of a question were either confused or at least not kept sufficiently apart, with the result that often the essential point or points of the question were lost sight of altogether. For instance, in answer to question 5 the boys in their anxiety to prove that the two tangents drawn were equal failed to prove that they were tangents at all. In several cases a lack of appreciation of the most important part of a proof was still noticeable and it was by no means uncommon to find an elaborately written out proposition with the most vital step in it left out. Another point which the boys must be taught to pay particular attention to is to read carefully and understand the question itself and to give the answer in the form asked for. Thus many solutions to question 7 were given in furlongs while the answer was asked for in yards—that being an essential point. Similarly in many cases boys drew figures with inch measurement while they were asked to do so on the metric scale. They should be taught to realise that if they give an answer in terms other than those laid down in the question they get either few or no marks at all for their work. At some centres, the ink supplied was of such an inferior quality that in a large proportion of papers the writing was so faint as to be legible only with great difficulty. Another want of care at some centres which might have given rise to considerable hardship was the omission to get the squared papers supplied stitched to the answer books. They are liable to drop out if left loose and the boys often work out answers on these sheets without any reference to them in the answer-book itself.

FROM THE REPORT ON HISTORY OF INDIA.

Both examiners comment on the weakness of the map-drawing. Hardly a single map even roughly approached accuracy. Such work can only be the result of careless and unintelligent teaching.

While many questions were fairly answered, they often gave the impression of having been more or less committed to memory—the answers from candidates of the same school being often strikingly similar.

Both examiners also remark on the carelessness of candidates, who often do not trouble to make sure that they are answering the question asked. In many cases, while the professed object of the candidates was to specify the causes of the rise of the Maharattas during the 17th century, the circumstances actually mentioned were mostly such as occurred in the 18th or 19th centuries.

Boys often write the same date wrongly in their answers—i.e., at one time put 1816 at another 1216.

Both examiners remark that the Moghul period is poorly known. Generally speaking, the earlier parts of History were better done, possibly because there is not so much detail.

A few schools are reported to stand out head and shoulders above the others, while not a few schools show such poor work that it is clear that many of their candidates should never have been presented for examination. In some schools the work was neat and tidy, but in several there seems to have been no "examination drill" whatever, and masters seem ready to accept any work, however dirty and untidy.

FROM THE REPORT ON GEOGRAPHY.

The paper was simple and straightforward and was set with the object of gauging the geographical sense developed by the teaching in the upper classes of Anglo-Vernacular High Schools. The types of questions covered:—(a) map filling (b) treatment of an area (c) explanation of phenomena (d) limited knowledge of the influence of environment on human conditions (e) some idea of geographical distributions.

(a) In answering the map questions the candidates from some schools showed a very fair knowledge of positions of places, those from others an ignorance suggesting an entire lack of wall maps or atlases. Very few showed the faintest knowledge of geographical relations. For example the evaporating, off-shore N. E. Trade wind was not recognized as a factor in producing the arid conditions of the Sahara as it was more often shown as an on-shore wind; the relation between the position of the Sargasso sea and the sweep of North Atlantic currents was not even suspected; the situation of towns with relation to mountain passes was only indicated by a few; and the determination of the courses of rivers by the land slope was ignored.

(b) The treatment of an area such as Japan was unsatisfactory, the answer usually took the form of jottings of information under the various

headings, without any attempt to show cause and effect.

(c) The explanation of simple phenomena was fairly good, but gave the impression that Physical Geography is generally taught apart from human.

(d) The effect of geographical environment on man has evidently not been considered worthy of attention. The question on this important section of work was either carefully avoided or else very feebly handled.

(e) When distributions were those of economic products the candidates answered clearly from notes that had evidently been well drilled into them, but they had very vague notions as to why groups of people had collected at certain nodal spots called towns.

The general impression gained from the papers was that most of the candidates had spent their time in learning facts without establishing relations. In those groups where the subject had been better taught, there was correlation but a lack of proportion in estimating the relative importance of the facts.

FROM THE REPORT ON SANSKRIT.

The work of the candidates was on the whole more satisfactory than in the last year, and the following few observations deal with some of the details of the work examined by me.

There were two Sanskrit papers: one on the prescribed texts and grammar, and the other on composition. The answers of the first paper, especially those of the grammar questions, were more satisfactory this year. It is the grammar section of the first paper that has largely enabled the candidates to make up the required percentage of marks to pass the examination. The answers of the 2nd paper, however, were below the mark, and if only complete correct sentences had been taken into account many more candidates would have failed. It seems clear that regular exercises in Sanskrit composition are not given in the majority of schools. A large number of candidates freely used Hindi words in the place of their Sanskrit equivalents with or without the Sanskrit terminations. No regard is paid to the difference of the Sanskrit idiom as contrasted with Hindi or English idiom. Another general defect, I would observe, was the promiscuous use of English equivalents of Sanskrit terms and consequently wrong answers to the questions asked. A large number of candidates have given correct declensional and verbal forms which were not asked in the place

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of those that were required. Transliteration of Sanskrit proper names seems to be quite unknown, since hardly more than half a dozen candidates out of 450 examined by me correctly spelt the proper name of the cat mentioned in one of the pieces.

The following suggestions are made for improving the work:—

1. Regular exercises in Sanskrit composition at least twice a week should be given to the students of the IXth and Xth classes.

2. Difference of Sanskrit idiom, structure of sentences and grammar from the corresponding idiom, etc., of English, Hindi or other Vernaculars, should be clearly brought to the notice of the students by the Sanskrit teacher.

3. The Sanskrit teacher should not mix up the two systems of teaching Sanskrit grammar—the old Indian and the modern Western. The former encourages cramming while the latter stimulates the power of understanding of the student. It would be quite enough for the candidates of the IXth and the Xth classes to make an intelligent study of a book like Professor Macdonell's Sanskrit Grammar for Beginners.

FROM THE REPORT ON FURTHER MATHEMATICS.

The general level of the work was fair and of much the same standard as last year. The school records are fairly good, but it is necessary that a register of the practical work done by each student should be systematically kept as is done in the case of the laboratory work in Physics and Chemistry. A class list and a schedule of experiments should be hung up in the Further Mathematics laboratory and in the column reserved for each experiment a recording mark should be made against each scholar's name as soon as he has satisfactorily performed the experiment in question.

The equipment of schools is slowly improving and in certain cases is fairly good; Moradabad and Garakhpur are the best in this respect. The necessity for a specially designed Further Mathematics laboratory still continues and it is time this matter received special attention, particularly at Moradabad, where an excellent opportunity of fitting up such a laboratory exists. It would be well if inspectors could be instructed to give special consideration to such matters in order that this branch of the optional work may be further encouraged at those centres where a satisfactory start has now been made.

The number of candidates this year, 21, shows a slight improvement, but it is still disproportion-

tionately low and the remarks previously made in this connection continue to be applicable.

FROM THE REPORT ON SCIENCE.

General.—In previous reports on the Science work in schools, attention has been repeatedly directed to certain defects which have steadily been noticed by the examiners from year to year. In many instances the particular defects referred to might have been easily remedied, had they received the least attention on the part of the school masters. It is therefore to be regretted that some schools still neglect to profit by the recommendations made from time to time in the yearly report, especially as those recommendations are framed with the object of assisting schools to bring about improvement both in the character and quality of the Science instruction. By such neglect the pupils of the schools in question are unduly handicapped, and this point of view is one which should not be lost sight of.

For the past two or three years, stress has been laid on the fact that there should not be any sharp line of demarcation between Physics and Chemistry in the School-Leaving Certificate course; yet, in particular instances, the examiners still find that not only have Physics and Chemistry been taught quite separately, but also that separate note-books have even been kept by the pupils for each of these subjects.

Diaries.—Moreover, in the departmental circular No. 2 of 1911, which was issued to the schools, special instructions were given to teachers concerning note-books and diaries, and yet many of these instructions have not received the attention they deserve. In many schools the object and importance of the diaries are apparently not understood. For this reason it is here necessary to state that, in the first instance, the whole syllabus should be outlined and then the work apportioned out in a manner that indicates clearly the way it is intended to teach the subject throughout the school year. This ensures a certain amount of thought and care being devoted beforehand to the subject by the Science teacher. In the actual diary itself, it should be shown, clearly, what work was done by the teacher in class, and what work was performed by the pupils themselves during the laboratory periods. In a properly kept diary, it should be an easy matter for the Headmaster to check the Science work, even though he may not be specially qualified in this subject. Many diaries are not kept strictly up-to-date. This is a serious defect for which there is no excuse. This defect is especially noticeable in cases where the diaries

are not carefully checked, at short intervals, by the Headmaster. In quite a number of instances the diaries were only written up-to-date just immediately before the Science examiner visited the school.

Note-books.—In many schools the note-books are still lacking in neatness. More care should be exercised by the Science master in the correction of the pupils' note-books and exercises. This is an important matter. In many instances there is distinct evidence of slackness on the part of the teachers. Bad errors in the spelling should in every case be corrected by the Science teacher, and then written out four or five times by the pupil on the left-hand page of his note-book. Should the same errors be repeated, then they should, after correction, be written out double the number of times. The uncorrected errors, so frequently noticeable in the school note-books are reproduced in the School Leaving Certificate Examination papers, to the detriment of the candidates concerned. The attention of the Science master is particularly directed to the following words which are repeatedly being wrongly spelt by the pupils:—

Thermometer, Fahrenheit, Reaumur, reflection, refraction, sine, calorie, preparation, separate, filtration, alkali, sulphur, phosphorus, gritty, oxides, oxidation, cork, strike, oxygen, hydrogen.

Bad grammatical errors should likewise be corrected. In this connection the remark of one examiner is worthy of notice. The examiner states that "the pupil's account of an experiment is an exercise in English composition" and this is a fact that should not be lost sight of by the Science teacher.

The first two pages of the pupil's note-book are to be reserved for the preparation of an index. This too, is a recommendation that has repeatedly been referred to in past reports, and yet, in many cases, has never been carried into effect.

Neat line sketches of the apparatus used in experiments should be made on the left-hand page of the note-book. These diagrams serve to fix the details of each experiment in the minds of the pupils. Nothing elaborate in the way of drawing is required; but simple, neat line sketches. In most schools, even where the note-books have been carefully kept, the school examination work has been very carelessly written. Improvement in this direction is an urgent necessity, and should receive immediate attention.

Oral work.—The results of the oral examination in a large majority of cases were distinctly disappointing. This could largely be remedied, if the Science master, at the end of each period, would spend a few minutes in putting a few simple questions to the class upon the subject matter dealt with during the lesson.

Laboratory work.—The actual performance of the experiments contained in the scheduled list was, generally speaking, satisfactory. In a large majority of schools, however, the following points should be noted:—

(a) In the fitting up of apparatus for the preparation of gases, the ends of all glass tubing used should be carefully rounded, so that they may pass easily, and without damage, through the corks and rubber-tube joints.

(b) In all cases where it is necessary to join together glass tubes by means of India-rubber joints, short lengths only—about two inches—of rubber tubing should be used. The ends of glass tubes, thus joined, should touch each other, and by wetting those ends beforehand they will be found to slip quite easily into the rubber joints. Rubber joints should never be used at the bends of gas delivery tubes.

(c) In certain schools, it has become the custom to replace, as far as possible, the gas delivery tube with considerable lengths of rubber tubing. This practice should be abandoned. It is wrong in principle, and encourages the pupils in slovenly methods of work.

(d) In the preparation of gas delivery tubes, each tube should just pass through the cork of the flask, and should never approach in length that of the ordinary safety funnel with which it is used.

(e) The corks of all flasks containing gas delivery tubes should be fitted gas-tight, and not subsequently made gas-tight by means of sealing wax, paraffin wax, or similar substances.

Cooling curves.—The preparation of a cooling curve for a liquid is generally carried out in a very unsatisfactory manner. The thermometer should be suspended in the liquid from a retort stand. The bulb of the thermometer should be totally immersed. A light stirring rod should be used throughout the experiment. In some cases the results shown up by the candidates were distinctly faked. A straight line was shown when a curve should have been obtained, and yet, all the points determined were indicated as lying exactly on the straight line. A Fahrenheit thermometer is preferable to a Centigrade, except when the latter reads to a fraction of a

degree. The actual fall in temperature, observed after an interval of two or three minutes should be plotted and about 10 readings taken; after which that curve should be drawn which passes nearest through the points marked out, as the results of the experiment, upon the graph paper. The points should never be linked up zig-zag fashion as is sometimes done. The time taken in seconds for the liquid to cool one degree should not be plotted.

Apparatus.—Generally speaking, the school apparatus is well looked after, but in a few instances, all the apparatus including balances, glass, and chemical reagent bottles were in a very dirty, unkempt condition. In such instances, as would be expected, the laboratory and class room were in a similar condition. Apart from the fact that Science apparatus deteriorates quicker under such treatment than from careful usage, the state of affairs described has a bad moral effect upon the pupils themselves, and encourages them in dirty, slipshod methods of work, and tends to form habits which, subsequently, are very difficult to eradicate.

Teacher's preparation.—The Science teacher is urged, in cases where it is not done at present, to spend a few minutes before each practical period, in getting together and placing out the apparatus necessary for the pupils' work. This will enable the boys to start work immediately on entering the laboratory, and will save much time and prevent confusion. The pupils should be encouraged to work under pressure. The School Leaving Practical examinations reveal the fact that the boys are seldom taught the advantages to be gained by (quick) methodical working. The value of time in a majority of cases is completely lost sight of.

This year's inspection of the school Science work shows that a wide gulf exists between the best and the least satisfactory schools, and if careful attention be paid to the points brought out in this report, considerable general improvement should be noticeable in the coming year.

FROM THE REPORT ON FREEHAND DRAWING.

Though 61 per cent. of the candidates reached pass marks, no candidate submitted a really intelligent drawing, and only one candidate obtained 80 per cent. of the marks allotted.

The examiner was, however, pleased to observe that the majority of the candidates set out their drawings on more natural lines and that there was but little evidence of the laborious and mechanical method of setting out in squares.

FROM THE REPORT ON MODEL DRAWING.

This paper shows a considerable improvement, the standard being higher, and fewer ridiculous attempts being submitted to the examiner.

The most obvious and general fault observed was that fully 75 per cent. of the candidates had not been taught how to draw a circle under the conditions of the examination, i.e., tilting back and partially seen, as in the bottom of the bucket.

The general shading though still weak is improving, but more attention should be given in schools to the observation of form and character as revealed by light and shade.

The subject should not be treated as imitative only, but as an attempt to represent thoughtfully and suggestively the character of the object being studied.

FROM THE REPORT ON GEOMETRICAL DRAWING.

Much untidiness is still observed.

Question 1.—Only 5 per cent. gave fair answers.

Question 2.—Candidates generally showed ability in scale construction but only 30 per cent. the knowledge of their use. The definition of a Trapezium is not well understood.

Question 3 and 6.—Fairly well answered.

Question 4.—Most candidates correctly adopted the easiest and most direct method of constructing the figure.

Question 5.—About 10 per cent. of the candidates attempted this question, about half of whom misread it.

Question 7.—Answered by 90 per cent., of whom 50 per cent., submitted neatly drawn answers.

FROM THE REPORT ON COMMERCE.

I have in past years consistently pointed to the defective knowledge of Arithmetic, and the slovenly handwriting of the majority of the students coming up for examination in Commerce, and the present year's results serve only to confirm me in my views on this point.

Book-keeping.—For the first time this year, as far as I am aware, have theoretical questions been set in book-keeping, and the result tends only to strengthen my opinion that in many cases students are not taught to realise the real purpose of book-keeping.

In a number of instances the replies to the theoretical questions disclosed the fact that book-keeping was regarded merely as an exercise, and in nearly all these cases the practical portion of the paper was dealt with in a manner which

showed an entire lack of appreciation of the use of the principles, which had obviously been learned by rote.

The unnecessarily lavish use of the journal continues to be a feature of the teaching of book-keeping in many schools. In some instances every entry was passed through the journal. Allowing for variations in accounting methods, it is, I think, agreed that the better practice is to use the journal as little as possible, while many modern accountants dispense with it entirely. These are points which do not seem to be sufficiently appreciated by Commerce teachers.

Commercial Correspondence.—The paper set this year in Commercial Correspondence is the first under the revised syllabus, which now covers the writing of simple business letters. Teachers will need to pay more attention to the business letter.

In far too many cases this year the letter, which was intended to establish business relations between the writer, as a would-be agent and his principal, was written on the lines of the groveling *umediwari* petition to which, unfortunately, one so soon gets accustomed. This tendency is most unfortunate, and I must emphasise the urgent necessity for the better guidance of the students in this direction.

Another prominent fault in connection with this letter was carelessness in appreciating the few and very simple specific points which the letter was required to bring out. These were often quite ignored, the letter thus failing entirely of its purpose. The diction was, in general, good and the grammar and spelling, if not good, were more than passable.

The business style was, in general, poor, even where the letters were not abject, as referred to above. The handwriting was, with a few exceptions, poor and even bad.

I have already referred to the defects in Commercial Arithmetic. This and carelessness in reading the paper brought many students to grief. In more than a few instances every single item in the "Account Sales" was wrongly extended. It is incomprehensible to me how students thus obviously unfit to undertake a Commerce course are permitted to take up the subject, or in fact how they come to be in the ninth and tenth classes.

Typewriting.—The typewriting results are on the whole satisfactory, but greater attention to the preparation of tabular statements and the manipulation of figures is generally indicated as being necessary. The identification and use of apparatus needs to be better taught and attended

tion should also be drawn to the necessity for greater attention to detail and method.

There are also indications that there is too much of that parrot-like acquirement of a mere jargon which must entirely preclude an intelligent and workmanlike knowledge of the work and the apparatus.

The assistant examiners are unanimous in praising the greatly improved methods of teachers in keeping their records, and the teachers' statements submitted seem to justify this praise.

FROM THE REPORT ON MANUAL TRAINING.

Theory and drawing.—The answers to the questions generally were not very satisfactory and showed lack of deduction.

1. The descriptive sketches asked for were very badly done, and exhibited considerable lack of observation and reasoning,—qualities which Manual Training is especially intended to cultivate. Very few candidates could discriminate clearly between the action of the two kinds of saw teeth.

2. This question was satisfactorily answered by nearly all the candidates. In some answers a weakness in the knowledge of the properties of metals was obvious.

3. This question was fairly well answered by the majority of the candidates. Very few candidates showed more than two dovetails on their drawing, and in most cases the slope of the dovetail was incorrect.

4. In this question the largest number of incorrect answers were given. This shows that students generally are shown too much and allowed to copy joints instead of inventing them. The joints should not be taught as an exercise in skill, but as the most efficient means of serving some definite purpose. This original work should form one of the most useful features in Manual Training, and will make such training real educational hand-work.

5. This question was satisfactorily answered. In some cases neither the scale nor the dimensions of the joints drawn were given. Nearly

all candidates did more drawing than was absolutely essential.

6. This question in observation and reasoning was not generally well answered. The sketches were very badly done, and the descriptions regarding the construction of the glue pot, and the principle on which it is constructed, were not nearly as clearly or fully done as they should have been. Considering that the principle of the construction of this article is so largely used in modern industrial machinery and appliances, the answers given showed that the teaching of Manual Training demands more care, specially in the application of the principles involved in the working of all tools and appliances.

Practical work.—The practical examination tests were done better than the theory and drawing. In some cases candidates did not use the most satisfactory joint for the work involved.

The tool manipulations in most cases were very unsatisfactory. Very few students executed the tool operations correctly. In most cases the tools were not used to the best advantage—exercises involving one tool operation only being executed by other tools, giving inferior results in a greater time. Economy in tool operations requires careful attention in all the schools. The teachers are apparently at fault in this respect. Joints should be taught only as a means to meet an end and not given as exercises in jointing two pieces of wood together. The jointing in all exercises involving the use of joints should be presented as a problem and from the logical deduction the joint should be decided on.

FROM THE REPORT ON AGRICULTURE WITH SURVEYING.

One school only submitted candidates this year. There was evidence of systematic teaching, but the oral and practical examinations, as well as the way in which certain questions were answered in the written papers, clearly showed that insufficient attention had been given to practical teaching, both in the field and through the medium of lectures and experiments. The school would be the better for more equipment and better facilities for practical training.

REPORT ON THE SCHOOL LEAVING CERTIFICATE EXAMINATION, 1916.

(Reprinted from the United Provinces Gazette,
August 19, 1916).

The written examination was held from March 27th to April 3rd at 21 centres.

The oral examinations in English and the practical examinations in Science, Commerce, Manual Training, Further Mathematics, and Agriculture with Surveying were held on different dates between January 1st and March 31st *in situ* at the various schools. The number of candidates admitted to the examination was 2,181 from 69 schools; one school (Christian High School, Farrukhabad) did not send up any candidate for the examination. The candidates who actually appeared in the whole or part of the examination numbered 2,135 and were thus distributed according to the optional subjects taken:—

Sanskrit	...	...	...	442
Persian	...	...	...	579
Arabic	...	...	...	22
Commerce	...	...	...	112
Science	...	...	...	720
Further Mathematics	...	...	...	21

Agriculture with Surveying	...	8
Drawing	...	201
Manual Training	...	30

One thousand one hundred and seventy-six offered Urdu as their vernacular, nine hundred and fifty-four offered Hindi, and four offered Bengali.

One candidate, who had obtained a certificate last year, appeared in Drawing only.

The results of the examination may be thus summarized:—

Thirty-two passed in division I.

Three hundred and thirty-one passed in division II.

Six hundred and thirty-three passed in division III.

Thirty-six candidates gained distinctions in one or more subjects.

One thousand one hundred and thirty-nine candidates failed.

Extracts from the reports of the examiners are printed for general information and for the special consideration of school managers, headmasters, and class teachers.

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ENGLISH SOUNDS AND SPELLINGS.

V.

WE have already seen how non-phoneticians define Phonetics." We must be satisfied with one or two more samples of their egregious ingenuity. According to them a phonetician is one who has been "at a great feast of languages and stolen the scraps"! Or he is a "baby-like babbling booby out of swaddling clothes"! We shall now see how phoneticians themselves define the term.

What is "Phonetics"? It is the science of speech-sounds. It tells us how the various sounds we produce while speaking are originated and modified and what vocal organs are brought into play. It takes as an axiom that a particular sound can be produced only in a particular way and in no other. It proceeds on this assumption to analyse the speech-sounds and classify them according to the acoustic values they have and the ways in which they are produced. It forms as important a part of language study as, for instance, Grammar which treats of forms, Vocabulary which

treats of words, and Syntax which treats of word order. Its speciality is Pronunciation. It need not be attempted at all if our aim is merely to pick up haphazardly a few hundred English words to be strung together in the Pigeon English fashion. But it must be studied if our aim is to have access to English literature through a mastery of the English language.

We must clearly recognise the two-fold aspect of phonetic training. The ear must be trained to discriminate the minute shades of difference in sound; and the vocal organs must be trained to reproduce these with exactitude. It is not enough if we possess "those exterior twin appendages, hanging ornaments, and...handsome volutes to the human capital," as Lamb would say. It is not enough even if they are able to appreciate the nicest distinctions in sound. Over and above this, it must be possible to co-ordinate the movements of the vocal organs so as to articulate the precise sounds. Phonetic training therefore involves a careful observation of one's own speech and ability to analyse and describe the movements of the vocal organs. Frequent practice alone can give mastery.

A willing student and a good mirror can go more than half the way.

The organs which come into play in uttering the speech-sounds are :

(i) *The lungs* which supply the expired air that is necessary to produce sounds.

(ii) *The larynx* where the aperture (called the *glottis*) allows the air to pass through with or without communicating vibrations.

This aperture, which is in the form of a V, is formed by means of the *vocal chords* which run in a horizontal direction, with the point of the V turned towards the front. These vocal chords can be brought together to meet in the centre and completely close the passage, or having been brought almost together, be made to vibrate. In the latter case, the sound that is produced is said to be "voiced." In the former case, the expired air escapes through a small hole (called "whisper-glottis") among the cartilages at the back. It is then called a "whisper." If the vocal chords are not brought into play at all, then the sound is said to be "breathed," or "voiceless." It is in the larynx therefore that the sound is voiced or made voiceless.

A very simple way of ascertaining whether a sound is voiced or voiceless is to hold the "Adam's Apple" with two fingers and see whether any vibrations are felt when uttering the sound. Another method is to close the two ears with two fingers when uttering the sound and see whether a buzzing effect is produced. Voiced sounds cause vibrations, while the voiceless ones do not.

(iii) *The mouth cavity* where the sounds are shaped.

Here lies the tongue, the most important and the most active of the vocal organs. It can move forward or backward; it can rise or fall; and it can flatten and spread itself or roll itself up in a column. In determining a sound, therefore, we have to consider what part of the tongue is brought into play, what height it is raised to and what shape it assumes.

For our purposes, the division of the tongue follows the division of the roof of the mouth. Opposite to the *uvula*—the single warder at the two approaches to the mouth cavity and the nose cavity respectively—lies the *root* of the tongue. Opposite to the *soft palate* is its *back*. Opposite to the *hard palate* is its *front*. And its portion lying between the *front* and the *tip* is called the *blade*.

The height to which the tongue rises and the shape which it assumes we shall consider later on.

The upper gums, the two rows of teeth and the two lips are also brought into play. The tip of the tongue comes between the two rows of teeth in making the *θ* and *ð* sounds. The upper row of teeth rests on the lower lip in producing the *f* and *v* sounds. The two lips may be closed and suddenly opened with an explosion, as in *p* and *b*; or they may be spread as in *i*; or rounded as in *u*.

(iv) *The nose passage* with the help of which the *nasals* are produced.

Of course, no sound can be produced through the nose alone. The mouth passage has to co-operate with it in producing the *m*, *n*, *ŋ* sounds and also the nasal vowels which are found in French, or, here, in Malayalam and Konkani, but not in English. We may note that in the case of the nasal vowels, the air passes both through the mouth and the nose; while in the case of *m*, *n* and *ŋ*, the air passes only through the nose.

VI.

The sounds, which we produce with the help of the expired air, may be divided into five groups, according to the amount of obstruction they meet with and modification they undergo during their passage. This obstruction may be one of

(a) narrowing the mouth passage in various degrees without however causing any audible friction anywhere in the mouth; meanwhile keeping the nose passage completely closed.

(b) narrowing the mouth passage so as to produce audible friction in the mouth;

meanwhile keeping the nose passage completely closed as before.

(c) completely stopping the mouth passage and then opening it with an explosion; meanwhile keeping the nose passage completely closed as in the previous cases.

(d) completely stopping the mouth passage in some form, but keeping the way up the nose open.

(e) keeping both the mouth passage and the nose passage open at the same time.

Since each group of sounds may be further differentiated by being voiced or rendered voiceless, we have ten different groups of sounds.

(a) (1) voiced sounds, which are called "vowels."

(2) voiceless sounds, which cannot be called "vowels" as we define the term.

We shall speak more about these sounds under English *h*.

(b) (3) voiced "fricatives" or "continuants," such as *z*, *y*, *ð* and *ʒ*.

(4) voiceless "fricatives" or "continuants," such as *s*, *f*, *θ* and *ʃ*.

(c) (5) voiced "plosives" or "stops," such as *b*, *d* and *g*.

(6) voiceless "plosives" or "stops," such as *p*, *t* and *k*.

(d) (7) voiced nasal consonants, such as *m*, *n*, *ŋ*.

(8) voiceless nasal consonants.

(e) (9) voiced nasal sounds, generally called "nasal vowels."

(10) voiceless nasal sounds in vowel positions.

In the light of this division of speech sounds, the old definitions of the "vowel" and the "consonant" should be restated as follows. A *vowel* is a voiced sound in producing which the expired air has more or less free passage through the mouth, without being subjected to any audible friction.

It is to be understood that the nose passage is completely closed. If however the nose passage also is open, we get what are called the "nasal

vowels." But since these do not occur in English we shall not refer to them any more.

The consonants comprise all the sounds that do not come under the vowels.

The old definition of a "vowel" as "a sound which can be pronounced by itself without the help of any other sound," must go; because it can, not accommodate, for instance, the *ʃ* sound which can be pronounced by itself. The old definition of a "consonant" as "a sound which cannot be pronounced without the help of a vowel," must follow; because *ʃ* then cannot be called a "consonant." In this connection we may perhaps refer the reader to Mr. Rudyard Kipling's *Eastern King* who used to communicate his orders by articulating "f." As a matter of fact this distinction between a vowel and a consonant is entirely wrong, for with a little practice every consonant that is met with in any language can be pronounced alone without the help of a vowel.

We have to repeat here what we have said elsewhere that theoretically speaking there is no limit to the number of sounds we can produce, though in practice we do not get more than fifty sounds in any one language. In English, as we shall see, we have thirty-seven simple sounds.

VII.

Before we can proceed to consider the English sounds in detail, it is necessary to take up the question of standard pronunciation. It is often asked whether any two people pronounce exactly alike and whether it is possible to set up a standard which will be acceptable to all. We must confess that, at least so far as Englishmen are concerned, there cannot be an absolute standard of right and wrong in pronunciation. For, pronunciation depends upon usage, which however differs rather widely. Though it is unconsciously evolved, it is but an aspect of fashion. It is therefore bound to be both arbitrary and conventional. It is liable to change from generation to generation, though the changes may be so gradual that they may not be evident to the actual makers of the changes.

Therefore to speak of a standard pronunciation may savour of attempting an impossibility.

But what we have said above is true only in theory. Though, scientifically speaking, we cannot have an *absolute* standard of pronunciation, we can easily set up a standard which will serve for all practical purposes. Have we not set up standards in the other aspects of language, such as grammar? Are not charges going on imperceptibly even there? Have they deterred us from speaking there of the right and the wrong? The fact is that the rapid changes we note in pronunciation are rendered possible because there is no standard speech to aim at.

We have said that pronunciation is but a kind of fashion. It should therefore follow the men of fashion in letters. We have followed a similar course in our choice of the literary dialect and we will have to do the same in the matter of pronunciation also. We must therefore brush aside local peculiarities and dialectal varieties, however interesting they may be to the student of language, and turn to the speech of educated Englishmen.

But here again we are confronted by a new difficulty. There are many differences in the speech of even the educated men. For instance, we often read of one Member of Parliament talking of "fainens" and another coolly replying with his "finens." Nor does the same man talk in the same way at all times. There is the self-conscious oratorical style in which every syllable is stretched out to the farthest it would go; there is the middle style, much in evidence in the classroom, for instance; and there is the rapid conversational style which may perhaps appear to a foreigner as mumbling out in monosyllables. So much for the differences in style. Turning to the differences in speech, we have the Northerner standing for long sounds and the Southerner fighting for the diphthongal sounds. We have to recognise therefore at least these two different types of pronunciation among the edu-

cated classes. Which type shall we adopt as our standard? and which style?

The latter part of the question is easily answered. We may remember the golden rule of Aristotle and choose the golden mean for teaching purposes. As regards the former part of the question, about the type to be chosen, is it difficult to decide for ourselves? We are, of course, *tertium quids* and we have no partiality for the Northerners or the Southerners. But we have to remember, first, that the oldest Universities in England, which wield so much influence all over the Empire, are situated in the South; and secondly, what is more important, London, the political brain of the Empire, which has given us the literary dialect and which may therefore rightly be expected to set up the standard of pronunciation, is also situated in the South. We shall not trouble ourselves about the cynic who says, "Well, exactly a hundred years ago we had to fight the *Cockney School* of poetry; now we have to fight the *Cockney School* of pronunciation." We do not mean that the "Cockney" should dictate to us what good pronunciation is, though it may come to that if a standard is not established. We are not very fond of his "Aiv faund em, miste meriwede, n gled naf Ai em te e bein e sam se: vis tii je" [I have found them, Mr. Merryweather, and glad enough I am to have been of some service to you.] Nor are we, on the other hand, admirers of the "inverted r-sound" of Lancashire, the *ei* diphthongs or the peculiar u-sounds of Oxfordshire and Berkshire, or any of the other provincialisms whose number is really legion. What we propose to take up as the standard is the speech of the educated Southerners as represented by phoneticians like Prof. Walter Rippmann or Mr. Daniel Jones. There is every reason to think that the southern pronunciation is gaining ground day by day and we, in India, may therefore safely adopt it as our standard.

Even in the southern pronunciation there may be found some differences, but these are minor.

ones. They are not generally in the production of sounds, but in the collocation of sounds in words. In such cases we have to adopt the pronunciation which happens to be more common among the educated classes. The rule of majority should guide us in these respects.

It must be said here that our consideration of the subject is limited to the "Standard English" we have chosen and our remarks will therefore be strictly true only of the Southern English as spoken by educated Englishmen. But here again we have avoided what may be considered as unnecessary complications so far as the practical study of the English language is concerned. We have, for instance, represented the sounds in "feed" and "food" as simple long, i: and u: sounds respectively, though the sounds generally heard in the south are ij and u.w. Again the two i sounds in "pity" are not the same, but we shall, for the sake of convenience make no distinction, transcribing the word *piti*, though the second i sound is a more open sound, lying between i and e, but nearer the former than the latter. Similarly we write "ædid" (added) and "hauziz" (houses). Once again we must, strictly speaking, write words like "pot" as *phat*. But to avoid unnecessary complexity we simply write *pot*. These details are not quite necessary for the teacher's purposes, though they may be absolutely essential for a close student of language. It happens, however, that these details may work themselves out in actual speech.

VIII.

We have said that it is wrong so far as the educated Englishmen are concerned to speak of "correct" and "incorrect" pronunciations. But the case is different with regard to foreigners. So far as they adopt one of the alternatives used by the educated Englishmen their pronunciation cannot be said to be "wrong." But more often than not, their mispronunciations are but spelling pronunciations. It is no wonder that foreigners fall victims to English spelling when we consider

that those to whom English is the mother-tongue have not been able to escape from the danger. But in the case of the former people the cause lies in crediting English spelling with an amount of consistency which it can never boast of having; but in the case of the latter it lies in a pedantic effort at correctness and refinement. It is just as natural for foreigners to speak of "kæpə:d" (kaped), "weistkout" (wesket) and "fə:(r)hed." (forid) as for the pedants who speak of "ɔ:ftən" (ɔfn) and "fə:hed" (forid). To mention but one instance more, who will think of "sisistə" as being the same town as that whose name is spelt "Cirensester"? If there is already so much confusion in the pronunciation of ordinary words, it becomes worse confounded when we come to the proper nouns—especially the place names as in the last mentioned instance.

We have already stated that our aim is to present the English sounds side by side with their spellings. It seems to us to be the only possible way of saving ourselves from falling into the traps of spelling pronunciation. But before we proceed to that, we may profitably examine some of the spellings and the different pronunciations they may have. We therefore add a list of spellings with words against them, so as to show how many different sounds the same letter or group of letters may represent. We do not pretend to make the list exhaustive, but we feel that it is not unrepresentative of the hopeless bewilderment into which English spelling will plunge us. We invite the indulgent reader to put flesh and blood into the skeleton supplied below by having his own nonsense sentences like the following:

Two short working women shot a dozen old wolves to-day. (o—spelling with nine different sounds):

The fool took the bloody brooch from the floor (oo—spelling with five different sounds).

1. a. fat, father, fatal, fall, faring, papa, any, want.

2. a—e. hate, bare, have, ate (et), are,

3. ai. paid, plaid, pair, plaister, said, Kaiser.
4. au. aunt, gaunt, gauge, mauve [mouv],
meerchaum (miejem).
5. ay. ay(ai='yes') ay(ei='ever), Ayr (ɛə)
says (sez), Sunday (sʌndi).
6. e. he, herb, hero, clerk, glen, pretty,
7. e—e. there, here, fête (feit), supreme.
8. ea. head, heart, heat, great, gear.
9. ei. height, heir, heinous (he'nes), heifer
(hefe) perceive (pe'si:v), forfeit
(fo:fit).
10. ie. shied, shield, sieve (siy), tier (tiə).
11. i—e. live, life, police (pe'li:s).
12. o. come, cot, cold capon; who, wolf,
women (wimin), work, worn.
13. o—e. love, lore, move, note.
14. oo. book, brooch, fool, flood, floor.
15. ou. you, young, sour, soul, should, pour.
16. ough. through (θru:), though (ðou),
thorough (θArə), thought (θɔ:t);
tough (tʌf) trough (tvɔ:f), cough
(kof, less commonly kɔ:f), hiccough
(hikap), hough (hɔk though the
proper noun is pronounced hʌf.)
bough (bau).

Coming to the consonants we have a similar phenomenon of same spellings with different sounds.

1. c. cat, city, violencello (vailən'tʃelou).
2. ch. ache, chaise (ʃeiz), such.
3. g. gem, get, rouge (ru:ʒ).
4. j. jew, hallelujah (hæli'lu:jə),
5. ti. nation, question, transition (træn'ziʃn).
6. sch. scheme (ski:m), schedule (ʃedju:l),
schism (sizm).
7. sion. occasion (əkeiʃn), dispersion (dis
'pe:ʃn).
8. th. thin, this, Thames (temz).
9. x. extra, example, excess, Xerxes (zə:kʃi:
z), luxury (lʌkʃəri).
10. ph. nymph ((nimf), nephew (neyju),
naphtha (næpθə).

We can easily make the list very much longer by including other spellings and spellings in which some sounds are not pronounced at all. But what we have taken will suffice for our purpose here. We have considered sixteen letters or combinations of letters among the vowels and ten among the consonants. We get ninety-one spellings in the former case and thirty in the latter, together making up on the whole one hundred and twenty-one. What story this richness tells we shall leave the reader to imagine.

But the conservative veteran educationist is not without a ready answer for the appalling waste of time and energy in the attempt to master the English orthography. He points out that this is a training ground for the pupils who later on in life will be called upon to wrestle with the complex problems of society, religion and politics. Very plausible indeed! A splendid training in veritable chaos!

(To be continued.)

T. A. RAMAIA.

In Active Preparation.

COLLEGE ALGEBRA

A Text-book for the Intermediate and

B.A. Classes

BY

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PUBLIC EXAMINATIONS AND ENGLISH.*

OF late there has been a great deal of controversy in this province in respect of failure in our public examinations, chiefly the recent Intermediate examination, and about the part that the subject of English has played in bringing them about. There are those who consider that the standard set up in that subject is, as Mr. Statham of the Kumbakonam College declared at the recent meeting of the Senate, 'notoriously high', and it is this that accounts for the appallingly large number of failures at the examinations. The Syndicate, on the other hand, say in a report that they have recently issued that the standard is only the correct standard, and that if of late years the percentage of failures has increased, it is because a large number of unfit candidates are getting year by year admitted into Colleges. In proof of this statement they cite the fact that whereas in March last the number of students that sat for the Intermediate examination was almost double the number that sat in the year 1911-12, the number of pupils in the Sixth Form of all the Secondary Schools in this province in March last was not double the number of 1911-12. Hence it follows, say they, that the standard of admissions into Colleges has been lowered, and many unfit students have been allowed to enter upon the University course. The charge of laxity of admissions is a serious one to make, and I know Principals of many mofussil Colleges resent it. But is it necessarily true that, as the Syndicate contend, because the number of candidates for the Intermediate examination has increased two fold since 1911-12, Principals must have been unduly lax in the matter of admissions? My answer is that it is not so. An examination of the figures on this point bears me out. These figures go to prove

that so far as admissions into the first year class in Colleges are concerned, they have been well enough regulated by the results of the S.S.L.C. examination. In the year when the public examination average for the Presidency was high, the number of admissions into the first year class of Colleges was also high, in the year in which it was not so high, the number of admissions was less. In 1911-12, the total number of pupils in the Sixth Form of all the Secondary Schools in the Presidency was 7409, the public examination average in English was 34%, and the number of admissions into the Junior Intermediate class was 3034, or 40% of the number in the VI Form. In 1912-13, the total number in the VI Form was 7858, the public examination average in English was 43%, and the number of admissions into Colleges was 3793 or 48% of the number in the VI Form. In 1913-14, the number in the VI Form was 7962, the public examination average in English was again 43%, and the number of admissions into Colleges was 4120 or 52%. In 1914-15, the public examination average in English dropped to 31%, and although the total number in the VI Form was 8710, the number of admissions into the Junior Intermediate class was only 3660 or 42%. It will thus be seen that if in 1913-14 and 1914-15, a large percentage of the pupils of the Sixth Form were admitted into Colleges, it was not because Principals of Colleges went on perversely admitting unfit candidates, but it was because a large proportion of them had done well in English at the S. S. L. C. examination. The results in the other subjects of this examination have not varied so much or so frequently as those in English, and so have not had any striking influence on the number of admissions into Colleges.

Now how did these students fare at the Intermediate examination? The batch of students whose average in English at the S. S. L. C. public examination was 34% went up for the

* An address delivered at the Kellett High School, Triplicane, by Mr. P. A. Subramania Aiyar, B.A., L.T., Headmaster, Hindu High School, Triplicane.

Intermediate examination in 1913-14, and 34% of them failed in English. The next batch that went up for the Intermediate examination in 1914-15 had scored an average of 43% in English at the S. S. L. C. examination, and 68.6% of the total number that sat for the Intermediate examination failed in English. The next year again, i.e. in 1915-16, the batch of students that had got a general average of 43% in English at the S. S. L. C. examination went up for the Intermediate examination, and 65.8% of them failed in English. Thus we have the singular phenomenon that the rise in the general average in English of the candidates at the S. S. L. C. examination has kept pace with a very large fall in the percentage of passes in English in the Intermediate examination. For aught I know, the S. S. L. C. examination in English is being controlled by Europeans also. How then are we to account for this disparity? Either the S. S. L. C. examiners have been unduly lenient, or the examiners in the Intermediate examination have been unduly severe, or the examinees have in their two years' stay at College not found it possible to come up to the Intermediate standard, or there is no proper co-ordination between the courses of study in English for the two examinations. Whatever that may be, those who have to submit their wards to these examinations have, to my mind, a right to complain in these circumstances and to demand that a more even and uniform standard be kept in view, and that their children be not alternately petted and whipped.

It seems to me that so far as English is concerned there has really been no proper co-ordination between the S. S. L. C. and Intermediate examinations. By way of illustrating what I mean, I should ask you to consider the poems prescribed for the S. S. L. C. examination of last year along with those that have to be brought up for the Intermediate Examination of 1918. The pupils of the Sixth Form last year studied

Addison's 'Ode to Creation', a piece usually taught in the IV Form, 'The Burial of Sir John Moore at Corunna' also usually prescribed for the IV Form, 'The Village Blacksmith' and 'The Landing of the Pilgrim Fathers' taught generally in the IV or V Forms and Matthew Arnold's 'Rugby Chapel,' a little too high for the VI Form. And these students have in the Intermediate classes to study one Book of Milton's 'Paradise Lost,' one Canto of Byron's 'Childe Harold's Pilgrimage,' Matthew Arnold's 'Sohrab and Rustum' and Shakespeare's 'Merchant of Venice,' quantity about seven or eight times as much as they studied in the VI Form.

Next as regards Prose. Even here there is no co-ordination in respect of quality as well as quantity between what is prescribed for the S. S. L. C. examination and that set for the Intermediate. In the first place, those responsible for the selection of text-books for the S. S. L. C. examination seem to forget the aim that should be kept in mind in choosing a book for detailed study. I take it that the book so set should contain matter of a fairly high order of literary merit consisting of good models of the chief literary kinds in prose composition, and should also be fairly limited in quantity so as to admit of the teacher leading his pupils to understand literary beauties, how particular words are used in particular contexts, how each paragraph is a consistent whole in itself, what place it holds in the fully developed theme, and why it holds that place, why particular ideas are expressed in particular forms, and so on. Ordinarily the books set for the S. S. L. C. examination are such as not to admit of our giving our boys this kind of training at all. Two years ago an attempt was made in the right direction, and a selection consisting of 10 or 12 kinds of fine literary prose was prescribed. But most of them were much too high for the average Sixth Form student and masters failed to do justice to them. And what shall we say of 'Tom Brown's School Days'

that was prescribed for detailed study last year? The book contained 250 pages, was replete with passages difficult of understanding as regards both style and matter, and took double the time usually allotted in the school time-tables to the study of English Prose, and yet masters felt that the work was done so perfunctorily. And what a contrast to this is the book prescribed for this year! 'Stories from the Idylls of the King,' retold by Mr. Malim, is written in excellent style, and certainly just the kind of little book to be placed in the hands of our VI Form pupils for independent study by themselves. But why prescribe it for detailed study, as if for careful exposition and elucidation by the teacher? I do not mean to say at all that the book will not lend itself to detailed and prolonged teaching. One obvious plan would be to study the book in close connection with Tennyson's Idylls themselves, show what variations or departures therefrom Mr. Malim has allowed himself, what points in the original the author has omitted in the prose rendering, and why, and so on. But this again would be too much perhaps for the Sixth Form. Besides, being wholly narrative in form, the book familiarises the pupils with only one 'literary kind' to the exclusion of others.

I am not competent to offer an opinion as to the quality of the books set for detailed study for the Intermediate examination. I believe, however, I am not far wrong when I say that the literary training that the average Sixth Form pupils receive by a study of the books prescribed for detailed study in prose is not sufficient to enable them to study their Intermediate text-books with intelligent appreciation of their form as well as of their contents.

As regards the books prescribed for non-detailed study, it appears to me that they are too many in number to be gone through in the right way. The form of teaching most approved in this case (I am talking of the Sixth Form pupils) seems to be for the teacher to set a

portion previously to his class and then question the boys orally on it. The questions should be pretty long, and, as they are being answered, it will be the duty of the teacher to draw the attention of the boys to logical sequence of ideas, correctness of expression and accuracy of idiom. Four books of more than six hundred pages in all are certainly too many to be finished in this way. Let me explain myself. Ordinarily schools work for about 180 days in the year and from sixty to sixty-five periods are devoted to text-books for non-detailed study. That is, in sixty periods the teacher has to take his boys through more than six hundred pages of printed matter. I take it, of course, that the books are not read in the class at all. A portion is previously set to the boys, and it has to be 10 pages as we see, and they come prepared to answer questions in it. Is it possible for the teacher within the 45 minutes at his disposal to question his boys exhaustively on the subject-matter of ten printed pages? I am afraid it is not. You have to set the question first, get the boy to answer it, as he goes on, you have to point out any mistakes of grammar or idiom that he may commit and correct them, discuss with him and make him see which ideas should be given prominence to and which should be kept back, show him perhaps in what other way his thought might be better expressed, and also make him see whether there is a logical sequence in his presentment of facts. After the answer has been got in this way, the teacher will do well to make the boy repeat the answer in the correct form. Besides, whenever he comes across passages of more than average difficulty, it is the duty of the teacher to explain them to his boys. Experience shows that all this to be profitably done requires at least double the time that we can allot to it in our time-tables. As it is, the teacher has merely to content himself with putting a stray question here and a stray question there and passing over the rest. Or, he merely reads through book after book, ex-

ing perhaps a sentence here or construing a
 ge there, and never taking the trouble to
 is boys to speak. If, however, the portion
 is non-detailed study be cut down to one-
 or two-thirds, work can be done very satis-
 rily and with profit to the boys concerned.
 am quite aware of the argument that will be
 against cutting down the portion. It will
 id that in that case boys will try to cram up
 books, which is an evil. My point is that
 an anxiety to put a stop to cramming, we
 unconsciously encourage cramming of a
 kind. For, the books themselves being
 too unwieldy, students resort to the
 practice of purchasing what are known as
 maries of non-detailed books of which we
 any number in the market, and getting
 by heart. In the meanwhile, the poor
 lmaster that has a conscience pleads, re-
 strates, rages or howls, but all to no purpose.
 boys go on loading their minds with a mass
 f, understood, ill-digested material which,
 they reproduce, furnishes very strange
 ing indeed!

the lack of proper training in this regard in
 High Schools necessarily tells upon the
 ents' studies in Colleges. There too as many
 our books containing perhaps 1200 to 1500
 es of printed matter are set and the students
 gle through them as they may. As has been
 ted out by the examiner in English Composi-
 on the books set for non-detailed study, "in
 y colleges the students do not get sufficient
 tice in Composition. The hours fixed for
 position are generally taken up either with
 the set books in the class or with lectures
 hem. It is needless to say that this practice
 ats the purpose for which the non-detailed
 y books are prescribed." Quite so. And
 fault appears to lie in setting too many books
 the examination. Again, the examiners in
 ish in Intermediate Prose say, "Even the
 candidates show a painful want of know-

ledge of the background of their texts. This
 cannot be said to be the fault of the candidates;
 the teachers must share the blame." I am dis-
 posed, however, to go further and say, "Neither
 the candidates nor the teachers are at fault. It
 is rather the enormous quantity of matter that
 has been prescribed for the examination that
 is responsible for so many failures.

My contention is that so far as the S. S. L. C.
 and Intermediate examinations are concerned,
 the quantity of matter in English Prose may be
 advantageously reduced. This will allow of
 English being taught on sounder and better lines
 both at school and at college, and give both to
 teachers and professors of English more time to
 devote to the teaching of Grammar, Composition,
 and the most elementary rules of punctuation
 and paragraphing," points on which, say the
 examiners in English Prose 'more stress must
 be laid.' As it is, the student gets literally
 weighted down with too much of cumbrous
 material, and as a result thereof does not get the
 requisite amount of training in the art of
 marshalling facts, giving to each its proper
 place in his scheme and setting them out in an
 orderly fashion. If thus he lacks the capacity
 of reproducing in a logical way what is contained
 in his books, how can we expect him to discuss
 a question arising on the basis of what he has
 studied in his books, look at it from all points of
 view, state the necessary pros and cons, and
 arrive at a conclusion?

I do not mean, however, that the average
 Intermediate student is a hopeless failure when
 he attempts to give expression to his ideas in
 decent English. His powers in that direction
 seem to be very fair, and the University average
 last year in the 4th paper in English, i.e. English
 Composition outside the text-books was 38 per
 cent. "a good enough average, I should think.
 That is to say, whereas students have done fairly
 well enough in English Composition, they have
 failed miserably in the text-books. Formerly it

used to be quite the other way. Average
 students at the F. A. examination used to pass
 only as the result of the marks they secured in
 the text-paper; in the Composition paper the
 average very rarely reached 38 or 40 per cent.,
 I should think. The reasons for this altered
 state of things are, as I have already stated, the
 lack of co-ordination between the courses in
 English of the Intermediate and S. S. L. C.
 examinations, and even more than that, the
 enormous quantity of matter both in Prose and
 in Poetry that has to be got up for the Inter-
 mediate examination.

In 1913 the Director of Public Instruction
 issued a circular to Headmasters of Secondary
 Schools in regard to the teaching of English, and
 it runs as follows:—"The attention of the
 Director has been invited to the fact that in
 many schools the treatment of text-books pre-
 scribed for detailed study and for non-detailed
 study in English in connection with the S.S.L.C.
 examination has been identical. The treatment
 should be different, and the Director would
 impress on heads of institutions the necessity
 for a really detailed study in the case of
 the former, i.e. references, allusions, the
 idiom and structure of the language should be
 studied; in the case of the latter, the object
 should be more the acquisition on the part of the
 pupils of a good vocabulary and of a working
 knowledge of the English language, and the text-
 books should be regarded as a means to an end,
 rather than as an end in themselves." I am sure
 every one of us will grant that the suggestions
 given above are very good and should be put to
 use. Unfortunately, however, as I have already
 said, the text-books prescribed are not always
 chosen with a view to render possible the carry-
 ing out of these suggestions. Frequently it
 happens that the books prescribed for non-detailed
 study are more difficult than those intended for
 detailed study.

I may perhaps refer to another small matter

with regard to the text-books for the S. S. L. C.
 examination. They are not generally announced
 at about the same time every year. In certain
 years, some of the books, particularly those in-
 tended for non-detailed study, were announced
 full two years previous to the examination, and
 many schools took advantage of this and had
 those books taught in the Fifth Form. In other
 years, as in this for example, the books were
 announced about sixteen months in advance, and
 in certain schools one or two of these books were
 commenced in the Fifth Form in the second term,
 i.e. early in January. In certain other years
 again, the books were notified only just twelve
 months in advance. It would perhaps be desir-
 able that the S. S. L. C. Board have a fixed rule
 in this matter, and not place one set of students
 in a position of greater advantage than another.
 In any case, I have no doubt that the quantity to
 be got up is very large and should be reduced.

I now pass on to consider some of the defects
 pointed out by the chief examiners in English in
 the Intermediate examination, and see how far
 they may be traced to lack of organization in
 High Schools, and how far to wilful neglect on
 the part of students. In the first place, it should
 be remembered that of late years the numbers
 in our High Schools have enormously increased.
 The consequence is that classes in many schools
 have become unwieldy, too many sections in each
 class render effective co-ordination of teaching
 very difficult, the holding of periodical examina-
 tions with a view to train boys in the art of
 answering questions is fast getting into disuse, the
 paying of individual attention to pupils so as to
 find out their drawbacks and remove them
 becomes impossible under a system under which
 different subjects are taught by different masters,
 the gradual overburdening of the curriculum in
 spite of certain subjects not being brought up for
 the public examination, and the lack of facilities
 of accommodation in most schools account for the
 neglect of subjects like spelling and writing. In
 addition to these, the practice of note-taking on

almost all subjects in the class, a practice, I suppose, which has been imported from England, has tended to accentuate the evil of bad spelling and faulty grammar. As the teacher goes on speaking, the boy takes down all that is possible, without any regard whatever for what is essential or not; often broken or unfinished sentences are contained in his note-books, writing gets slipshod, and mistakes of spelling occur very frequently. The over-worked teacher finds it almost impossible to correct these note-books with the result that pupils perpetuate their own mistakes, get into slovenly habits of writing, and acquire a mode of spelling, phonetic perhaps, but far removed from the orthodox.

The question as to how far the neglect of grammar in schools has been responsible for failures in English may well be considered here. There is no doubt that in many schools no formal grammar is taught at all. This is partly due to the reaction from the old state of things when absolutely no text-books were prescribed for the Matriculation examination, and masters went on hammering away at what was known as 'General English,' and partly due to the notion that the 'Direct method of teaching English' is inconsistent with the teaching of grammar on a deductive basis. While this notion is, no doubt, true of the lower forms, it cannot be denied that in the High School forms a course in grammar may advantageously be gone through. The use of articles, of verbs followed by appropriate prepositions, of verbs like *may*, *might*, *should* and *would*, elementary rules as regards sequence of tenses, punctuation and paragraphing—these and similar points may profitably be taught. If, however, as much attention to these as is necessary is not being bestowed, it is because, as I have said already, all the time devoted to English is taken up with the text-books.

Let me now consider to what extent students themselves are responsible for their failures. Foremost amongst the causes of these,

I should place bad writing. It must be a matter of painful experience to most teachers often to have to do with pages of matter written in a slipshod or illegible hand, the letters often running into one another, the lines cramped together, variegated perhaps with a blot here and a scoring there—a very picture of carelessness and want of consideration for the reader. I am quite willing to admit that this want of consideration is not wanton or deliberate, but is rather due to the anxiety to stand well with the examiner, and a desire 'to show off' by writing as much as possible within the allotted time. This again involves the fallacy that the longer your answers are, the greater the number of marks that you get. Nothing can be farther from the truth, however. What the examiner really wants is well-thought out, carefully written answers, not perfect, it may be, nor exhaustive, but clear, reasonable and to the point. Often therefore it becomes necessary for the students to devote at least as much time to the thinking out of an answer as to the putting it down on paper. As it is, however, students spend almost the whole of their time in writing page after page in a hurry with the result that they produce a very bad impression on the mind of the examiner. My advice then would be, 'Take care that your writing is neat and legible, and don't fear that because you have to write well, you are put to the necessity of curtailing the length of your answers. Better a short answer written legibly and well than a long one in an illegible hand.

Of equal importance with legible writing is the observance of such elementary rules of English grammar as those bearing on the use of capital letters, sequence of tenses and the ordinary marks of punctuation. My experience of High School boys is that they have a tendency to neglect these points. But these, however, are mistakes which with a little of care they can easily avoid. It cannot be too strongly impressed on students that examiners are after all human

and that however immaculate they may try to be, they cannot but be carried away by the general look of the answer papers and the impression that these papers produce on their minds. A paper written in a neat hand with even spaces between the lines and with not many blots or scorings on them will prepossess an examiner in favour of the writer of that paper as surely as another written in a slovenly, slipshod manner will prejudice the examiner against its author.

Gentlemen, I have done. The chief points I have tried to draw your attention to in this address are these:—

(a) Statistics on the subject show that admissions into the Junior Intermediate classes of Colleges based on the results of S. S. L. C. examinations have not been unduly lenient as the Syndicate have sought to make out.

(b) So far as can be seen, the results in English in the S. S. L. C. examinations have no correspondence with those in English in the Intermediate examinations.

(c) The reason seems to be the absence of co-ordination between the courses in English of the S. S. L. C. and Intermediate examinations.

(d) The quantity of matter prescribed in English, particularly in Prose, may with advantage be reduced.

(e) This would make it possible for teachers and professors of English to pay more attention to English Grammar and Composition.

(f) Owing to the enormous increase in the strength of Secondary Schools and the consequent difficulties of accommodation and organization, as also on account of the overburdening of the curriculum, writing and spelling do not now receive that amount of attention that used to be paid to them before.

(g) All the greater therefore is the duty of students in this matter, and they should see to it that examiners do not hereafter say what they have said of last year's batch of Intermediate

candidates, viz., "The worst feature of the work done by the inferior candidates who form too large a proportion of the whole number is the general slovenliness of so many papers characterised by neglect of all the rules for punctuation, use of capital letters, and paragraphing, combined very often with almost illegible handwriting. These are defects which admit of no excuse, and are within the power of the least intellectual to remedy."

In connection with the above, the following Circular recently issued by the Registrar of the University of Allahabad under the authority of the Board of Studies in English to all recognised schools under its jurisdiction, will be read with interest:—

PREScribed TEXTS AND SUPPLEMENTARY READING.

For the Matriculation examination the University prescribes certain books for detailed study and recommends, in addition, a list of books from which Headmasters are asked to select at least one for use as supplementary reading in classes IX and X. It is desirable to indicate to teachers what purposes are served by the 'prescribed text' and 'supplementary reader' respectively.

The prescribed texts are for intensive study. Their aim is to train the class in the exact use of language; they serve for the careful and minute scrutiny of words, phrases and sentences in order to show pupils how to arrive at their exact meaning. Incidentally they furnish opportunities for drill in speech and grammar, and provide material for exercises in composition. Most of the teachers' detailed class instruction should therefore centre round the prescribed text.

The supplementary readers, on the other hand, are not meant for detailed study, but are read mainly for the sake of their contents. Their aim is to extend the vocabulary of the pupil, to train him to read for himself, and encourage him to regard reading as a pleasurable occupation. The bulk

of the supplementary reading should, therefore, be done at home by the pupil himself, with a dictionary by his side. To ensure that it is being regularly done the teacher should devote to it at least one period per week in school. In this period he should clear away difficulties which defeated pupils in their independent study, and should question them about scenes, characters, incidents, &c., to interest them in the story and to determine how far they have grasped it. The supplementary readers also provide good material for English conversation and for exercises in composition.

The University does not set an examination in the supplementary readers, because it is feared that this would defeat the end in view—the development of a love of reading for its own sake. Headmasters and scholars, however, should realise that supplementary reading is one of the best means of preparing for the ‘unseen passages’ of Part II and of providing a ready vocabulary for the purposes of composition.

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"NAGANATHAN AT SCHOOL."

I.

WHEN about the middle of the last century Thomas Hughes published his *Tom Brown's School Days*, it was recognised as a work of originality and instantaneously achieved widespread and well-deserved popularity; and several other authors have followed in his wake. The idea of regarding school or college life as a serious subject worthy of special treatment gained a permanent foothold in the realm of English prose. Farar and some other writers have gained good reputation by successfully portraying school or University life in their works. It has also enabled them to hold before the public a high ideal of education by exposing serious evils existing in schools and advocating the introduction of new reforms for purifying and elevating the standard of education. In *Naganathan at School* Mr. Barlow has struck a similar note with regard to High School life in South India. As far as I know, this book is something original and unique in this part of the country, no similar literary venture having been made before. The attempt is all the more remarkable because the author is an Englishman. And English Educationists of the present day, with their reserved and exclusive manners, do not generally get into close touch with their students and consequently are lacking in that insight and sympathy without which such a work cannot be successfully written. But Mr. Barlow, belonging to an older generation of educationists, and constituted by habits and temperament in a mould different from that of the average Englishman in India, and with his nearly twenty years' educational experience in Southern India, has perfectly succeeded in portraying realistically some features of the life of the average Indian High School student with all his merits and shortcomings.

The book originally appeared as a serial in the *Students' Own Magazine*. It naturally invites

* *Naganathan at School*, by Mr. Glyn Barlow, published by K. & J. Cooper, Bombay.

comparison with other books of the same species like *Tom Brown's School Days*; and any impartial reader will be bound to admit that in its attempt to portray the life of our Indian High Schools it comes out triumphant from any ordeal of comparison. Naganathan is the type of many boys that we have in our High Schools, embodying in himself many of the virtues and vices of our youngsters. The story of his life during the three years that he was a student of the Trevelyan College at Rajpore after leaving the Middle School at Mangopet is told in very simple, lucid and charming language, the author exhibiting in the narration of the story very keen and shrewd powers of observation and enlivening every page of it with his lively and playful humour. He also displays special insight into the nature and character of our young men and his sympathy with, and knowledge of, Indian life in general. What his *Industrial India* did by focussing the attention of the public on some of the pressing industrial problems of our country, that *Naganathan at School* is intended to do as regards some of the educational problems that await solution at our hands. Some of the sore wounds that painfully endanger our educational organism are laid bare by the author, and the work of healing them is left to us.

II.

The plot of the story is simple in its unity and development. It represents a naturally good boy's degeneration at school under the evil influences of his vicious companions. How did this degradation take place while he was a student in one of the well-conducted educational institutions in the country? This general transformation of a once hard-working and diligent student into a happy-go-lucky youth, quite indifferent to his studies, has to be attributed to the operation of influences very unhealthy in their nature and pernicious in their results. From the author's method of presenting it the following seems to be the process at work. A young boy of twelve or thirteen,

brought up very affectionately, even indulgently, by his poor but loving parents, is suddenly removed from home and sent for the sake of his High School education to a fairly big town and is made to drift for himself there. The boy is of too tender an age to have his moral faculties or will-power sufficiently strengthened or developed. Away from the watchful and controlling influences of the home, he becomes his own master and, not unnaturally, abuses the freedom he has secured too early in life. The large classes in the school make it impracticable, if not impossible, for the teachers to devote individual attention to the boys, however desirable in itself. His neglect of duties goes unobserved at home as well as in the class. He is exposed to the varied temptations that usually beset young men in large towns and falls an easy victim to them. He moves in the society of undesirable and even vicious companions and his character becomes completely, though gradually, demoralized. He works diligently at the beginning, then gradually becomes indifferent to his studies just managing somehow to keep up his place in the class until on account of sheer and wanton neglect he miserably but deservedly fails in the Matriculation. Repentance comes all too late for redress. Such is the picture of Naganathan's educational life and career that the author places before us. Many defects in our educational system are hinted at and remedies suggested in the course of the story.

Though the book purports only to give us Naganathan's school-life, that is not the only thread in the story. Behind this main theme or plot there is the background of the family life of his parents and sister Janaki. The school-life of the young hero is often brought into contact with the life of his family when he goes home for the holidays or for his sister's marriage, etc. The latter is often made to intervene so as to vary and relieve the monotony of the former. This double plot, if we may so call it, though very simple in its organic unity, becomes at one moment almost tragic especially in

the scene where Janaki lies on her sick-bed, almost on the verge of death, from whose deadly clutches she is saved by the timely and courageous action of resourceful Naganathan. Then again the author has a special purpose in introducing the parents and sister of the boy among the actors in the drama. If, in his gradual descent into the depths of laziness and moral delinquency, Naganathan does not become a total moral wreck, it is because he has occasional glimpses of the privations and hardships which his parents are enduring for his sake, and because he is now and then brought under their healthy and loving influence during the holidays. His innate moral goodness has not been completely uprooted by the evils to which he falls a prey. Thus the balance of good and evil in him is kept up by the general harmony that emerges out of the conflict between the influences operating at school and at home. If he succeeds well in life, it is not, on account of, but in spite of, his education.

III.

Mr. Barlow is a keen observer of men and manners. He reveals his insight into, and thorough knowledge of, the nature and characteristics of student life, in numerous instances. His inborn love of students and sympathy with their youthful hopes and aspirations have furnished him with a golden key to unlock the secrets of their hearts far more truly and successfully than a foreigner could be expected to do. Naganathan's father's ignorance of the rules of the road in the town and consequently in his nervous anxiety "turning the cart at right angles across the road"; the cumbersome way of his addressing the first letter to his son; the false notions prevailing among parents about the material prospects of English education, Naganathan's simple father expecting his son to become a Member of Council or High Court Judge on passing his Matriculation; Mr. Narayana Rao's *Elegy* with its annotation on the 'Curfew'; the Indian physician with his "red-woollen-poke-cap and spectacles framed with black-rime which, like

his medical lore, might have been handed down from his forefathers," and his muttering some mantras before administering the medicine; these and many more instances scattered through the book fully testify to the wide range of his observation of our life and customs. Then again, boys "doing some jumps into the water off the wall," half a dozen naked "urohins" pursuing the cart with mirthful yells, "the doffed shirts serving for goal-posts" on the football field, the boys lying on the ground and peeping under the canvas-wall of the Circus tent, are all every-day experiences that lose their charm for us on account of their familiarity. We become blind to many beauties of Indian life by our long acquaintance with them.

IV.

It is natural that the author should be conversant with student life; but the accurate, even minute, knowledge of Indian life in general displayed in the book is truly remarkable. His sympathetic insight has enabled him to lift the veil off Hindu society and see into the very heart of things. He succeeds in diving beneath the surface of the tranquil waters of Hindu life and seeing many things that happen in our home life, which are unobserved by outsiders. In drawing the picture of Naganathan's home he has beautifully depicted the typical poor Indian parents who thirst to give their sons English education, which has now become very costly and almost beyond their means, at very great sacrifice. The father making up his mind not to complain "even if the curry was not quite so tasty as before," little Janaki volunteering to undergo the severest privations for the sake of her brother, and the loving mother striving to practise the strictest economy in the family expenses, are all delicate touches that strike a sympathetic chord in our hearts. It is impossible to praise too highly the "idyllic home life" that he has painted with its simple loves and innocent pleasures, the readiness of every member of it to make any and every sacrifice to get their darling son educated. Naga-

nathan's mother "coaxing her boy to eat more than his usual share" before starting on his journey, and her defence of her son's enjoying his cup of morning coffee like all other boys in town, are true flashes that throw light on the simplicity of the Hindu mother. "The guileless curiosity and unrestrained familiarity" of the simple Indian villager, "the labour so great and the profit so small" of the village farmer on his patrimonial patch of land, which in famine years falls into the Sowcar's hand, the ever-familiar swinging-basket, all reveal to us, though unconsciously, the author of *Industrial India*.

V.

The most attractive feature of the book, that which saves the story from becoming dull or flat, is its humour, playful, lambent and genial. There is not a page which is not illumined and enlivened by his ever-present spirit of living humour. Naganathan's felt-cap, "a size too big," coming down to his ears but set by Mr. Narayana Rao "at the scholarly angle" and with coat collar almost meeting his cap at the back of his neck, and with his coat "achieved a sartorial triumph." The learned Headmaster affixed his signature to the book "in majestic characters," the Principal's "I shall not eat you," Naganathan "the piteous little oddity," being made by Subba Rao to stand upon the last bench of the Intermediate class; the boys "whooping a psalm of liberty" on hearing the last bell; Naganathan becoming in his village "a King Arthur of mighty deeds," "even Cæsar himself could not have sat stolidly in his triumphal car," Naganathan mistaking the wag Subba Rao for a master and the mischief resulting from it; Subba Rao's present of a bouquet to Govindan and the master accidentally smelling and coughing violently "with his rainbow face";—are only a few of the sparkling gleams and flashes of humour with which the book abounds.

A little bit of satire, caustic but good-natured, in referring to several walks of life, is not wanting. The Johnsonian reporter of Rajapore Gazette with

his long words and fine phrases: "magnanimous success," "the incorrigibly good circus," etc; "Inspectors are seldom pleased;" Mr. Taxer regarding the distribution of prizes as a "horrible nuisance" and his final oration with its pauses of "er-er-er" recurring at specific intervals; the old general "falling asleep in his chair and distinctly snoring" during the reading of the report; are instances of satire that forcibly come home to us on account of their truth and general prevalence.

VI.

Naganathan, the hero of the story, has nothing heroic about him. He does not, like Tom Brown, fight against constituted authority for the removal of legitimate grievances nor does he champion the cause of the fags. The author plainly intends to depict, in the character of Naganathan, a boy, endowed by nature with a fair share of intelligence and good impulses and brought up in the peaceful, loving atmosphere of the village home, who, when placed in the new environment of a modern town with its besetting temptations, succumbs to the evil influences and becomes a sad failure in his education, to the utter disappointment of his fond parents. He is spoiled and ruined by his company. Left to himself, he would have developed into one of the brightest and best students in the whole school. But Guruswamy, the inevitable friend of his, proved "his evil angel," and Subba Rao dragged him into the depths of moral depravity. His moral deterioration was a gradual process completed in two years. He mispends the money intended for his fees in visiting the Circus and feeding his friends, and tells a lie of its being lost; he is caught by a policeman for unruly conduct at night; he is initiated into the mysteries of the cigarette by his friend; even his keen interest in the sports wanes under their influence; he becomes a member of the "Honorable Society of Book haters"; he copies from Govindan's examination paper and hates him for his deserved success; he knocks Govindan down on the foot-ball field and feels "a sense of Cane-like satisfaction" in his

deed; "chronic idleness" has been his undoing; at home he determines "to turn over a new leaf" in the Sixth Form; but he has become such a moral coward and confirmed idler that he cannot eschew the society of his vicious friends; the Principal, moved to pity at the spectacle of a good boy being ruined, warns him seriously,—as Dr. Arnold warned Tom Brown—; the sense of repentance and the newly awakened sense of duty desert him in a short time; and he fails deservedly in the Matriculation. Such in brief is the career of Naganathan. But he goes to Madras and, failing to get an appointment in any office or shop, determines that it is "better to carry bricks than to beg." I only doubt how many boys, brought up according to our present system of bookish education with its great contempt of manual labour, would have done like Naganathan. The only incident which, to my mind, smacks of undue exaggeration and which could have been better omitted, is the scene of the "whisky bottle." All the other forces at work in the story are forces that are actively operating on the character of our young men in big towns and cities. I even think seriously that the author had the idea of exhibiting a mighty contrast: home influence *versus* school influence. The wholesome influence of Trevelyan College fails to produce any tangible effect upon the hero. And unlike Tom Brown, he has no Arthur to purify and chasten his character.

Govindan is introduced as a foil to Naganathan. He is a student of very average intelligence but who makes up by his diligence for his lack of Nature's gift of intellect. He succeeds in his educational effort whereas Naganathan fails. There is an element of tragic irony in Govindan being finally selected as his sister's husband; and he makes amends for his past misdeeds by saving Govindan from a watery grave. Guruswamy and Subba Rao are typical of a few veteran vagabonds who poison the very atmosphere of our schools. They are the sons of well-to-do parents who go to school not to learn, or to improve themselves,

but to contaminate and ruin guileless and simple boys like Naganathan.

VII.

It is very difficult, in reviewing this book, to resist the temptation of identifying some of the scenes and characters in the story. I grant that such localisation might have been far from the mind of the author. But as one, who had the fortunate privilege of sitting at the feet of Mr. Barlow and imbibing some of the noblest lessons of moral conduct from his teaching and life, it is impossible for me not to recognise in the benign and loving Mr. Fleetwood some traits in the character of Mr. Barlow himself. His "good memory for faces"; his benevolence in frequently helping poor boys with money; his keen insight into the character of the boys, his jealous insistence on the honest and honorable conduct of the students; his "indoctrinating the whole district with an athletic spirit"; his insistence on the students' paying as much respect to their masters as they do to him, his behaving like a gentleman towards, and expecting gentlemanly behaviour from, the students; and lastly the enthusiastic interest he took in the work of debating societies, his attempt to give students some initial training in journalism,—all these unmistakably, and to me convincingly, prove that Mr. Barlow has, however unwittingly and unconsciously, portrayed himself in the person of Mr. Fleetwood.

And Trevelyan College with its "long blocks of buildings" and its "big bell in the college belfry" is undoubtedly, the Victoria College. Rajpur is Pelghat and Mangopet one of the numerous outlying villages situated at a distance of a dozen or fifteen miles from the town like Kollengode. During his regime, inter-school sports were annually held in the town, in which several High Schools in the district took an active part. The Victoria College Parliament was a unique model institution that trained our young men in the art of public speaking and conducting business in parliamentary style. I hope my guesses are not far from the truth.

VIII.

The book is not barren of instruction for educational reformers. Many of the defects and shortcomings in our present-day education are either openly expressed or only thinly veiled. What are the causes of Naganathan's degeneration? In the answer to this question are involved many of our problems. The necessity for, and the means of, inculcating moral principles in the minds of our youngsters, the devising of means for exercising a wholesome influence on the character of students at school, the need for co-operation of the home and the school in educating the young, the founding of hostels for keeping young men from the corrupting temptations of the towns, the holding of small classes to enable the teacher to devote individual attention to the boys in the class,—these and some other pressing problems are in all sincerity suggested for consideration, though not put in so many words, by the author.

The story gives us a true and real, not at all idealised, picture of High School life in South India. It is sure to produce in the young a healthy moral tone. They will one and all strive hard to avoid the pitfalls of Naganathan. In the wise words of the author the story would make them feel "that an hour of boyish folly is often productive of a life of adult regret." Every Indian student should try to read this valuable and stimulating book, assimilate the noble truths contained in it and practice them in his daily life.

P. K. ANANTANARAYAN IYER.

'EDUCATION' DEFINED IN TWENTY-TWO WORDS.

Education is the training of body and mind helpful to leading a life consistent with the requirements of truth, courage and honour.

S. SRINIVASAN, B.A. (HON.),
Prizeman,

Ceded Districts' Social Gathering, 1916.

HINTS ON PUBLIC SPEECHES.*

Mr. Chairman, gentlemen, and my young friends:

The object of asking you to assemble here to-day is, to give you some advice with reference to public speeches. Now-a-days public speeches have become so common and they are sometimes so dangerous that I, as one interested in your welfare, feel it my duty to speak to you some words of advice. If you expect to hear a very long speech that would rouse your feelings and set your hearts aflame, you will be sorely disappointed. It is not my intention to dazzle your understanding by the artful display of the flash and glitter of my rhetoric, but it is my intention to place before you clearly a few facts and to convince you of their truth. I should not be misunderstood to have undertaken this task of addressing you this evening, in any other spirit except that of a physician administering an antidote to counteract the effects of a poison that has found entry into the system of his patient. Therefore I shall commence my address to you by striking a note or warning—a note of warning which you should garner up in your hearts and never forget—a warning which, if you now disregard will make you rue in future, while you find yourselves in difficulties. That note of warning is—you should never allow your individuality to be wiped away by ever so thrilling an eloquence flooding in at your ears; you should never allow the strong-hold of your reason to be battered down by the rattling artillery of a public speaker, lest the fascination that may be exercised on you by the eloquence, should leave undesirable marks on your natures: for, you should know, a speech often produces a far greater effect upon young minds than a written disquisition on the same subject however skilful it may be. This is due to more reasons than one.

* A lecture delivered by Mr. A. Subramania Ayyer, B.A., L.T., Headmaster, Rajah's High School, Ramnad, on 6th Sept. 1916, under the auspices of the Students' Literary Association, Ramnad.

In the first place while you hear a speech, your thoughts are led away from the subject of the discourse to dwell on the grandiose nature of the eloquence, and they become drunk with the delight they feel in the flowers of speech that may be thrown here and there. The very rapidity with which a speech is delivered is apt to captivate you: for, you all know that we wonder at and admire a thing which we feel to be impossible in ourselves. When a breathless concatenation of words is poured forth before you, you are taken aback and consider it to be an acrobatic feat and admire it, not because the speaker has given you sufficient food for thought, but because words have flooded into your ears in a never-ceasing succession. You have no time to think and you do not feel the truth of the maxim, "Where words most abound, the fruit of sense is seldom found." Struck by the unusual command of language which the speaker exhibits, in acquiring which you are daily confronted with so many difficulties, you are thrown into an attitude of profound admiration, in which all tendency to question and criticise dies out, and your individuality so completely merges in that of the speaker that you are carried darkling down the torrent of his emotions.

Again a speech has another advantage over a written disquisition in being accompanied by the personality of the speaker. The very force of delivery, the melody of the voice, the very emphasis that is laid on certain words will so influence you and captivate your understanding that you totally forget that you are offered certain facts over which you should think and pass your own judgment; and you drink in whatever is said.

There is still a third reason why a speech will produce a greater effect upon you than a written treatise. Owing to the shortness of time even a deliberate speaker who gives his thoughts slowly one after another will not be easily understood by you. Thoughts crowd in upon you and before

you begin to think of one thought that is offered to you, another thought comes in, thus cutting off an effective exercise of your thinking power. It is only the quickest-witted men that can keep their critical faculties alive in the course of a public lecture; but young students that have the critical power just dawning in their minds cannot be expected to bestow much thought upon the facts offered to them in the course of a rapid speech. In the absence of critical thinking, the very fact that the speech was so rapid that even the trained short-hand writer could not take it down, is sufficient to rouse your admiration. You do not think even for a moment that the speech ought to be intended to teach something definite to the audience, but not merely to baffle the efforts of the short-hand writer. Owing to your admiration and the absence of critical thinking you are apt to take whatever is uttered for gospel truth: and it may produce disastrous effects on you.

On account of these reasons, it is clear that a speech produces a great impression upon you and it is needless for me to tell you that you should bestow great care and attention in discriminating, as far as lies in your power, as to which speeches are good and should be treasured in your hearts and which speeches should be eschewed as soon as heard. In order to make you understand how you should discriminate between speeches, I shall give you an analysis of the motives of public speakers in general.

Some speakers there are (and there are a very few of them) who are actuated by sincere motives of doing good to you while they speak: and even among these speakers, you have still to distinguish two distinct classes—those whose utterances are based on sound judgment, and those whose utterances are based on inexperience and hot-blood. The first class of speakers are those that deserve your respectful attention: for they will place before you the cream of wisdom they have gathered in the

course of long-experience with the faithful object of benefiting you. They will warn you from dangers that shall have to be faced and will point out to you the right course of action. They will place before you this store of wisdom not with an air of presumption: but will plead before you with great modesty. They will never indiscriminately rail at persons and things in order to win your admiration. They will not follow your inclinations in order to please you, but will sternly oppose them wherever it is necessary. They will not make you laugh by holding up time-honoured and wise principles to ridicule: for their aim is far nobler than that of a mere buffoon. They have seen long years roll before them full of far-reaching issues, and when they speak, it is for bestowing a real blessing on you by way of lifting you into nobler modes of thought and action.

On the other hand the second class of speakers are young men who have just come out of the college, whose thoughts are swayed by their hot-blood; and in whom the higher faculties have just begun to unfold themselves, and are therefore in a state of intense activity, and lift them into a visionary world of exuberant fancies. Such young men having just reached the adolescent stage are full of impracticable fancies fashioned in their idealistic brains without any reference to the existing condition of things; and they preach them to you in season and out of season, not in the least suspecting the evil effects that they may produce upon you. No doubt their motive is sincere. They speak, not because they wish merely to gain popularity, but they speak with the sincere motive of ennobling you. But they fail in achieving their object owing to want of experience and on account of the purely idealistic nature of their thoughts. It is no wonder that they should have such idealistic tendencies in them: for they still carry the reminiscences of a past existence in their souls: they still have the echoes of a former glory ringing in their ears as "the shades of the

prison-house have not yet closed on them." They have not yet plunged into the battle of life to face the stern realities of a more matter-of-fact world and consequently are full of fanciful ideas. What I mean will be made clear to you if you listen to the weighty words of one of the wisest of English poets namely Wordsworth:

The soul that rises with us, our life's Star,
Hath had elsewhere its setting,
And cometh from afar:
Not in entire forgetfulness,
But trailing clouds of glory do we come
From God, who is our home:
Heaven lies about us in our fancy!
"Shades of the prison-house begin to close
Upon the growing Boy,
But He beholds the light, and whence it flows
He sees it in his joy:
The youth, who daily farther from the east
Must travel, still is Nature's priest,
And by the vision splendid
Is on his way attended:
At length the Man perceives it die away,
And fade into the light of common day.

Earth fills her lap with pleasures of her own:
Yearnings she hath in her own natural kind,
And even with something of a Mother's mind,
And no unworthy aim,
The homely Nurse doth all she can
To make her Foster-child, her inmate Man,
Forget the glories he hath known,
And that imperial palace whence he came.

I should not be thought guilty of raising my voice against these divine gleams in our nature. It is these gleams that account for whatever is best in us. But what I wish to say is that instead of allowing these gleams to weave around you an imaginary world of flimsy visions, if you direct them down upon the work-a-day world, you will be able to gather wisdom which is at once divine and practicable, by the interaction of these two factors. Instead of these gleams,

by themselves acting on you, they must act in co-operation with your own experience of the world and then only you will become a practical man. Unless there is such a co-operation, you will be a mere visionary. Now such visionary speakers are too dangerous especially to come into contact with young minds. The force of what I say will be clearly understood by you, when you read the life of Shelly. You will read there how Shelly came under the influence of a godless and revolutionary preacher named Godwin, and now as a result he became for ever incapable of foreseeing the consequences of his own action in the constituted order of things. The result was that he met with reverses at every turn and ended his life prematurely in disappointment and sorrow. To avoid a similar fate overtaking you, you should be especially guarded against the second class of speakers.

But there is still a third class who do not deserve your attention at all, and who should be considered by all right thinking men as the greatest enemies of humanity. These have no nobler motives than the thirst for popularity and ephemeral applause. Owing to this motive it is their deliberate aim to tickle the feelings of hearers without trying to chasten and elevate them. They understand the instinctive inclinations of those whose good-will is to be gained, and pander to them most ignominiously and feed these inclinations by their speeches. What are the instinctive inclinations in man, which the professed public speaker takes advantage of so as to gain your hearts and captivate you?

The first tendency in man is revolt against all existing authority and the third class of speakers know for certain that this is ingrained in our natures. They know full well that the story of the revolt of Adam and Eve against the authority of God is not the mere gossip of the story-teller but the faithful delineation of an instinctive tendency that characterises man. You know that you are always thirsting after novelty and excitement.

When anything new comes before you you are attracted towards it irresistibly, not for any greater reason than the mere satisfaction of your curiosity. In support of this I may cite no less an authority than Dr. Johnson. In his passage on the distinction between man and beast, he clearly proves that man is the only being who is ever hankering after change, while all the beasts lead a monotonous sort of existence quite contented with their present condition. In that passage Dr. Johnson clearly shows that even those men who are placed in enviable positions are still discontented and thirst after something better. Though this tendency in us may indicate that the things of the earth fail to satisfy us and that there must be some noble destiny beyond the grave for which we are intended, still the fact remains that discontent is a quality ingrained in our natures. The last class of speakers know this and they also know that you have the closely related instincts, namely love of freedom and dislike of all restriction. These qualities are so strongly expressed even in the lower order of beings that there is no questioning their presence in the constitution of man's nature. These natural instincts are so readily responsive that they vibrate to the slightest touch of the skilful harper. The public speakers of the third class understand this well and take advantage of it. They will tell you that you should set at naught all authority curbing your liberty of action. They will rail at school-discipline as obnoxious fetters undesirably imposed upon the young. They will tell you that teachers should reverence pupils and that punishments should be done away with.

They will tell a thousand and one things more to please you; for you should remember that no greater aim impels them to speak than the mere gaining of popularity among you. You will be delighted no doubt when you are told all this. But forget for a time that you are students and forget the unpleasant passages that might have happened between you and your teachers and

calmly reflect upon the effect of such a discourse upon young minds. Punishments are no doubt bitter, but the physician's doses are literally so—and if you are for abolishing the prescription of medicine in necessary cases of illness, I shall have no objection to doing the same with punishments. You may as well say that the penal code should be suppressed and that criminals should be respected. You no doubt know by your own experience, that your feelings are respected by your teachers provided you do not revolt against school-discipline. In case you err against it, it is the necessary duty of your teacher to administer a sharp check, if he has any regard for the soul entrusted to his charge. On the other hand the teacher will be highly wanting in his duty and will be guilty of disrespect to the soul of his pupil, if he omits to punish him then and there; for, the absence of such a check will make the pupil persist in his fault which will eventually distort and deform his character.

Again I should reiterate that school-discipline is not an unnecessary adjunct to school work; but on the contrary it is the most fundamental thing to be looked after in a school. The level of discipline maintained in a school is directly responsible for the degree of development in character attained by the pupils. In schools where discipline is at a low ebb, you will invariably find notorious examples of misbehaviour; and you will not yourselves, in the innermost recesses of your hearts, allow that such a state of affairs is quite desirable. Obedience to authority is in itself an exercise of the will; for, every time you obey, you exert an effort to subdue your rebellious inclinations and recalcitrant feelings. Every time you obey, the mastery of the will over your own feelings and over your own inclinations is assured. You might have heard that those who have learnt to obey are those that are fit to command. We all know that we should all be under some sort of restraint. We have our emotions which may often-times master our reason and lead us to do

wicked actions; and it is why elders are under the authority of the Government, while youngsters should be subject to the authority of their teachers. Authority is therefore a wholesome check upon you which will preserve you from falling a prey to your wicked tendencies. In spite of all these facts the last class of speakers will tell you that discipline is bad and punishments should be abolished just to please you and gain your good-will and applause.

Again these speakers know that there is still another tendency in you, which they know now to harp in order to gain your applause. The daring and the unexpected in thought, word or deed is often the ready means of rousing the admiration of the inexperienced. If any daring feat is performed you admire it because it is attended with great peril and because others are afraid of doing it. In the same way, when anything is said which others are afraid of saying, it is sure to call forth your admiration. Knowing this, irresponsible speakers who are bent on no other thing than gaining your applause, wantonly animadvert on great men with the intention of striking young hearts by a display of bravado.

As I already told you at the outset I had only a short discourse to offer you and shall wind up my speech by giving you a summary of what I have already said. I think I have made it clear to you that speeches produce a far greater effect on the hearers than a written disquisition, as clear thinking and critical review are impossible for three reasons; namely (1) the glittering tinsel of outward garb which absorbs your attention instead of the subject, (2) the personality of the speaker, (3) and lastly the very rapidity of delivery. Again I have made it clear to you that there are three classes of speakers according to their motives. Firstly those that have a sincere motive of doing some definite good, and whose views are based upon wide experience and sound judgment; secondly those speakers who have no experience of the world, whose judgment is

immature, and whose ideas are hatched in hot-blood; thirdly those irresponsible speakers who have no sense of duty, who simply pander to your dangerous inclinations with the sole object of making a name and gaining your good will. From the very motives of the speakers I have attempted to set forth, I imagine, I have made it clear to you which speeches to admire and act up to, and which to eschew as soon as received. I shall end my speech by once more repeating the warning that while hearing a lecture, do not be merely stung by the rapidity and the music of the delivery. Do not allow your critical faculty to be laid asleep by ever so loud an appeal to your emotions. Take care that every sentence of the speaker is passed under a rapid but strict review of your cool judgment. If such an active exercise of your judgment is impossible in your case, (as it may well be, seeing that you are youngsters) think over what has been offered to you, at least after the lecture is over, and try to find out whether any practical good will result from it. In case it is a speech delivered merely for the purpose of making a name and winding your admiration by pandering to your dangerous inclinations shun it by all means as it will effectively disfigure your character. In conclusion I shall give you a clue that will stand you in good stead in making you understand which speeches to shun and which speeches to adore. If you come across a speaker who cannot speak but by railing at all existing persons and things, at once shun him, neglect him, and don't have anything to do with him. He is not worthy of your hearing. He is too dangerous to come into contact with you. He will fill your brains with impracticable and dangerous ideas whose consequences you will rue in future.

VERNACULARS—THEIR POSSIBILITIES AND LIMITATIONS.

TILL a few years ago the contest between the Vernaculars and English as media of instruction in schools was not so marked as it is to-day. It would even seem as if the vernaculars had already scored the victory, at least in theory. Notwithstanding a few dissentient voices here and there, it is now generally agreed, that the teaching of non-language subjects in schools should be carried on in the vernaculars, instead of as at present in English. There are some who are not content with this limited programme. They would like to see the wholesale employment of the vernaculars during all the stages of school and collegiate education and even in professional colleges and institutions. These vernacular faddists, as their opponents call them, lament that their scheme was not adopted as the educational policy of Government. Those who condemn the policy which established our Universities do so, because they try to read history backwards. The rivalry then was not so much between the Vernaculars and English, as between Western and Eastern learning. The question then was not as to how the boys were to be taught but what they were to be taught. Those responsible for laying down the policy appear to have had a poor opinion of eastern learning, in some cases quite unjustified. They did not conceal their contempt for the geography which described oceans of milk, or the history which dealt with the reign of a monster with ten heads lasting for thousands of years. They had to decide whether Indian youth should continue to be nourished on the mental pabulum contained in Sanskrit and Persian, in the manner of their ancestors, or whether they should introduce the yeast of western learning to leaven their intellectual life. Few will question now the wisdom of the decision, although all will regret, that in the working of the scheme, the Indian classics and vernaculars came to occupy so subordinate a

position. It was impossible in those days to convey instruction in the vernaculars. The pioneers of English education in India, if they had come out with the intention of teaching us in the vernaculars would not have been in better case than George Primrose, in that delightful little book, the Vicar of Wakefield, when he went over to Holland to teach English to the Dutch. It was expected that in course of time, the young men who had received light through a foreign medium, would make it available to their less fortunate countrymen through the vernaculars. Instead of doing this, the best brains of the country became absorbed in the professions or in the service of Government, and so the work still remains to be done.

If English continues to be the medium of instruction, not only is it impossible for the vast majority of the people to acquire knowledge through it, but even those that do acquire, do so under too great a strain. Elementary education has always been and from the very nature of the case must always continue to be carried on in the vernaculars. Instruction in secondary schools used to be imparted in English, but attempts are now being made gradually to use the vernaculars for non-language subjects, History, Geography, the Elements of Mathematics, Physics, Chemistry and the natural sciences are capable of treatment in the vernaculars. There are some difficulties however which must be clearly realised and overcome. First and foremost is the absence of suitable text-books. The preparation of these has till now been left to private enterprise, with what results it is unnecessary to state. To produce a really good text-book, the author must have not only a thorough knowledge of his subject, but also possess a good command of the vernaculars, a combination of qualifications which is not easy to find in the same individual. Even in elementary text-books, technical words and expressions cannot be avoided. These are what may be called terms of art. If it is proposed to

find or coin suitable equivalents for these in the vernaculars, no two authors would necessarily agree about them, and it is of prime necessity that in the sciences, objects and processes should be denoted by only a single word. Imagine the confusion which would be introduced if two or three writers on chemistry adopted different equivalents, for, say the words hydrochloric-acid, potassium, etc. The most promising way of doing this business is to form an academy of scholars and scientists and charge them with the duty of preparing suitable graduated text-books. When once they lead the way, individual authors will follow in their wake.

The second objection has reference to the provision of teachers. At present in many schools, there are boys speaking more than one vernacular. English is their common language now. But if instruction is to be imparted in the vernaculars, then the schools will have to provide as many science-masters, as many history teachers, as there are vernaculars represented in the school or leave the minority to shift for themselves. This is a practical difficulty, and one solution of it would be, that in places, where there is more than one school, they agree that each will impart instruction in a different vernacular.

The third difficulty relates to the conduct of public examinations. If students are taught in the vernaculars, they must be examined only in the vernaculars. There is a chief examiner who sets the questions and the assistant examiners help him in the valuation of the answers. The chief examiner is expected to supervise the valuation by his assistants, so as to secure fairness and uniformity of standard. If the boys are to answer in the vernaculars the system that obtains at present must go. There must be as many chief examiners as there are vernaculars, and as a necessary consequence a variety of standards, and not uniformity. It is possible to exaggerate the magnitude of this difficulty, but some means must be found to obviate it.

College and University students should have a sound working knowledge of English, were it only as a second language. To such, the study of sciences in English need not present any difficulty. But it is objected by the adherents of the old school of thought, that if English is reduced to the status of a second language, the student's knowledge of it is apt to be so meagre, that he cannot follow lectures in the College classes. The advocates of the vernaculars also object on the ground that it is not consistent with national efficiency, that English should take the place of the vernaculars in College classes, and they appeal to the example of Japan. It is easy to satisfy the first set of critics by altering the syllabus a little in the secondary stage or by devoting an extra year to the special study of English. The objection to the employment of the vernaculars in the University course is its impossibility in the present condition of things. The European professors in the various Colleges who teach the sciences and humanities have little or no acquaintance with the vernaculars. It is doubtful whether even the Indian professors feel quite equal to expounding their subjects in the vernacular. Then again there will be the re-duplication of tutors and professors. In the colleges of Madras, students speaking all the vernaculars of the Presidency are represented. If they are to be taught in the vernaculars, for each subject, there should be as many professors as there are vernaculars. The financial burden which this involves is too great for the colleges in existence. At some distant future, when Universities are established at Rajahmundry for the Telugus, at Madura for the Tamils and at Trivandrum for the Malayalees, it may be possible to teach in those Universities in the predominant vernacular.

But the real difficulty is not so much the poverty of the people as the poverty of the vernaculars themselves. Even to prepare elementary text-books in the vernaculars is no easy matter. How then are we going to solve the

difficulty when advanced text-books have to be prepared in the vernaculars? Coin the words and equivalents, says an intrepid advocate of the vernaculars. This is more easily said than done. People who give this advice so glibly can have no conception of the enormous number of words that have no equivalents in the vernaculars and for which equivalents have to be coined. Even the most laconic of sciences, the mathematical sciences, have a considerable stock of technical words. It is unnecessary to say anything about Chemistry, Zoology and Botany, which are full of names for which there is no equivalent in the vernacular. This object of teaching these subjects in the vernaculars, is to enable the boys to assimilate their knowledge sooner and more thoroughly than they do now. This is not attained by manufacturing, uncouth and, un-understandable Sanskrit compounds, as the equivalents of the equally unintelligible English words. The fact is that our vernaculars are in a most crude state so far as scientific exposition is concerned. It is no answer to say that we have very good poetry and some grandiloquent prose, in the vernaculars. A language that is well equipped for poetic expression is not necessarily so for a scientific thesis. Kalidasa and Bhavabutti may well feel handicapped if they were set to translate a modern elementary text-book of science.

English, French and German have a scientific vocabulary of their own. It has come to them in process of time and as a slow growth. Words were coined as occasion arose to express an idea or name an object. Sir Oliver Lodge says that with the exception of the word "gas" no words coined by scientists are so simple and direct as those coined by humanity, such as "heat," "light," etc. If this is so, when the ingenuity of one or several scientists is exercised in finding one suitable word at a time, imagine what the result would be when an effort is made to coin many thousands of words in each department of study, at the same time.

There is another alternative. Instead of fruitlessly racking the brain for equivalents, we may import the English technical words wholesale. At first there would be an appearance of ludicrousness in English words with vernacular terminations, jostling pure vernacular words at every turn, but use will wear away the novelty, and the foreigners will after a time become naturalised. Even now, words like "coffee," "quinine," "soap" have become pucca vernacular words and are freely used in even village homes. There is a mistaken impression that a coined word is native but not so the borrowed word. What should we say about the wisdom of a thirsty man who set about digging a well on the banks of the Ganges, that he may have the satisfaction of drinking from his own well.

These considerations show that the adoption of the vernaculars for non-language subjects in the University course, is under present conditions an impossibility and that their adoption even in the secondary stage is beset with difficulties. In order to facilitate the study of boys brought up in the vernaculars, when they commence higher studies in the University, we would do well to borrow our stock of technical words even in the elementary treatises.

The change to the vernaculars is advocated because a great part of the time and energy of the student is consumed in acquiring the English language, which is after all a means to an end. What should we say of a carpenter who spent half a lifetime in fashioning his chisels and handsaw? English is a difficult language. Can nothing be done to simplify it? To some extent the difficulty is artificial, and may be avoided. It has nominally 26 letters in the alphabet, but one has to learn four times as many before one can say one knows the alphabet. There are the capital and small letters, and then print and manuscript. This distinction is quite unnecessary and no harm will be done to any body if only manuscript small letters are retained and

the others are abandoned. Then again, its spelling and pronunciation. We can do nothing to the pronunciation. We can only try to imitate the best models, but the spelling must be reformed at once. Every one admits, that it is the most illogical and irrational thing about the language. You cannot write a word when you hear it and you cannot read a word which you have heard before, because you are not aware of the composition of its letters. This terrible spelling demon which has surprises for all with its silent letters, and unmanageable vowels scares English children just as much as it does Indian boys. With the mental effort now necessary to learn and retain in the memory ten new English words, you could learn 20 new words if there was no difficulty with the spelling. It is true that many English words which appear to be curiously spelt contain a history of their origin in their composition. This branch of inquiry may be left to the antiquary, and in the interests of the coming generations, a more logical and reformed spelling which gives to one sound no more than one letter and vice versa, adopted. If so much is done, then a great step forward would have been taken in simplifying English for Indian boys.

C. R. KRISHNA RAO.

சாணக்ய சாகஸம்

அல்லது

சந்திரகுப்த சரித்திரம்.

ஸ்ரீமதி வி. பாலம்மாள் அவர்களால் இயற்றப் பட்டது. விலை ரூ 1, தபால்சார்ப் பிரத்தியேகம். வேண்டுமொர் அடியில்கண்ட விலாசத்துக்கு எழுதி பெற்றுக்கொள்ளலாம்.

ஸ்ரீமதி வி. பாலம்மாள்,
"விவேகோதயம்" பத்திராதிபர்,
35, பெப்ஸ் ரோட், திருவல்லிக்கேணி.

FEMALE EDUCATION*

Mr. President, Ladies and Gentlemen:

Allow me to thank you and the organisers of this evening's function for enabling me to participate in it. The function is a solemn and pleasing one. It is the opening of this fine new building for our local Government High School for Girls. I am told that nearly half a lakh of rupees has been spent for constructing this building. It is scarcely necessary for me to say that our thanks are due to our benign Government for the magnificent gift it has made for this school at a time when the whole Empire is being subjected to unprecedented financial stress as a consequence of the stupendous war that is being waged in three continents. Our thanks are also due to Mr. Evans, our Collector and local representative of our Government, for his kindness in having consented to preside on this occasion. And lastly our thanks are due to our esteemed townsman and Municipal Chairman, Mr. O. Mammi Cunji Haji, who in another capacity has constructed this beautiful edifice which looks like a veritable temple fit to be dedicated to the goddess of learning. May that goddess who is to be consecrated here to-day shower her choicest blessing on her votaries, the pupils of this institution.

Ladies and Gentlemen, I think it unnecessary to tire your patience by a lengthy and elaborate dissertation on the advantages of imparting education to our women. No one now opposes women's education on principle. There was a time when gray-bearded pappas and bald-headed grand pappas used to be horrified at the bare idea of sending their daughters and grand-daughters to public schools or even to private schools. Those good and pious gentlemen—and very good and very pious gentlemen they were in their own way—thought that female education was worse than the worst sin known to the laws of God and man. They had a notion and they clung to it rather tenaciously

that female education meant unruly daughters, turbulent wives, clandestine love-epistles and intolerable petticoat red-tapism. That time is gone. The old order has changed giving place to a new one. Even the most ancient and orthodox Indians now alive, concede the necessity for educating their women. It is admitted on all hands, intellectually at least, that the future progress and prosperity of our motherland depend in no small measure on the progress we make in giving sound and healthy knowledge to our women—our wives, our sisters and our daughters. I do not therefore propose to say much on the general subject of women's education.

Although we all admit the need for educating our women, it has to be confessed to our shame that our practice has not been as good as our preaching. The progress we are making is very slow. The proportion of school-going girls to the total feminine population of the country is ridiculously low. Our homes are still the hot-beds of meaningless superstition and obstructive touch-motism. It is all very well for you gentlemen educated on western lines and having a University degree or two as ornamental appendages to your names to preach about social reform, to mingle freely with one another, to talk about the elevation of the depressed classes, to proclaim in season and out of season, from the press and from the platform that we are a nation, to arrange and eat cosmopolitan dinners, and to drink your mutual healths. So far so good. But when after all this outward manifestation of your spirit of progress, you go home in the evening to the bosom of your family, you at once become slaves to all the domestic superstition that your uneducated and therefore obstinate mother or wife or sister casts in your teeth. You tell your wife that your daughter should not be married before she attains age and becomes fit to be wife and mother and that child marriage is morally and physiologically wrong. Your wife calls you an apostate and calls in your mother, her mother and two venerable grand-mothers to boot to testify to your hopeless apostacy. You tell her that cholera is spreading in the town and that you mean to disinfect your well as a precautionary measure. She comes down

upon you with the retort that she is not going to allow her well to be polluted and poisoned by some nasty blood-spitting stuff which for aught she knows may be crystallised cow's blood. You press upon her that a qualified midwife or doctor should be called in to attend upon her during confinement. No—she would rather die than be polluted, dishonoured for life. Her old barber-woman is worth a wagon-load of midwives and doctors. The plague is infecting the town. Let us get ourselves and our children inoculated. The idea is scouted. In this way you are thwarted and obstructed in every good proposal. Your resolutions are cruelly vetoed. Your judgments are mercilessly reversed. You are compelled to remain a helpless slave. The remedy for the evil is clear. Educate your women. Give them light. Open their eyes. Let the torch of knowledge be lighted in every little village in the country and let its illumination penetrate every dark nook and corner.

The Government is willing and anxious to help the cause with advice and with such funds as are available. This building is a standing proof—if indeed one were needed of the Government's solicitude in the cause of female education. Yet the progress has been slow. The reason is not far to seek. We the people of the country, are very much to blame. We do not work with sustained and sufficient energy and earnestness. Our big Jemies and Zemindars, our rich merchants and bankers, our prosperous lawyers and doctors and high officials must come down with handsome donations. They must build schools for girls and endow them well. Our educated middle class who cannot spare money must help the cause by carrying on a strenuous and active propaganda to induce the people to send their girls to schools. Unless the people bestir themselves, the cause cannot prosper in spite of all possible Government help. Self-help is the first thing required. We must learn to stand erect on our own legs. Are we going to learn it? I hope we are.

Ladies and gentlemen, I am about to make a few observations which may not be quite palatable to the rising generation to whom they are addressed. I wish them well and I hope and trust that they

will take my words in the kindly spirit in which I mean them. I have observed and many well-wishers of our country have likewise observed that there is a growing tendency in our school boys and school girls to treat with contempt all their old institutions and all their traditions. There is a general lack of reverence which is most deplorable. The more educated you become, the more reverential should be your attitude towards your past.

"Let knowledge grow from more to more
But more of reverence in us dwell."

So says the late Lord Tennyson. Because you are taught to read and write and put a few sentences in grammatical form, you do not, therefore become omniscient. You have no justification whatever to suppose that your fathers were fools and your grand-fathers were idiots. The sons and grand-sons, the daughters and grand-daughters of fools and idiots cannot be the bright and intelligent boys and girls that we see in our schools. Have reverence for the past. Do not condemn hastily and in a wholesale fashion. Do not judge before you understand. Do not thoughtlessly give up your national ideals and run after novel and foreign institutions. If, after mature consideration, you find defects in your institutions, remove them by all means. That is a duty you owe to yourself and to society. But do not defile your birth by irreverence. Excuse me, young ladies, if my language is strong. I feel strongly on this subject and am carried away by my feelings whenever I think of it. I tell you that irreverence will lead you to a place which I dare not mention.

Closely connected with and following out of irreverence is the tendency to eliminate religion from your life. I am afraid that 90% of our school boys and school girls are agnostics or even worse. They treat religion generally with indifference and often with contempt. The purely secular education that is being imparted in our schools and the neglect of religious discipline in our homes are to a large extent responsible for this tendency. Further I admit that there are many crude ideas in some of the books which pass for religious literature in India. I think that some of the old and grotesque stories told in such books are often

* A lecture delivered by Mr. P. G. Rama Aiyer, B.A., B.L., District Munsiff, Cannanore, on the occasion of the opening ceremony of the Government Girls' High School, Cannanore, on the 4th September 1916, under the presidency of Mr. F. B. Evans, I.C.S., District Collector.

disgusting and contemptible. But it has to be borne in mind that these are not the real religious literature in India. I tell you, there are priceless "gems of purest ray serene that the dark unfathomed caves of the ocean" of our religious literature bear. You will have to sail far, dive deep and search long. It is so in every religion particularly in regard to the higher truths. I pray you do not despise religion. A religious foundation is essential for building up a fine character. Agnosticism will lead you to gross materialism—materialism of the type that sees no injustice in treading down poor, unoffending Belgium, in regarding solemn compacts as scraps of papers, in proclaiming that necessity knows no law, in murdering innocent non-combatants in cold blood and in short in throwing to the winds every principle of private and public morality. I earnestly entreat every parent present here to have an eye on the religious side of his or her children's education. A third evil tendency is seen in the senseless desire to imitate anything and everything western merely because it is western. The East and the West have met after long separation and have shaken hands. The east—the ideal east—has to learn many lessons from the practical west and vice versa. It is, however, silly and foolish of us to ape anything and everything western. Take for instance the current mania of our boys and girls to dress in European style. The mania is a poor compliment to your intelligence. The European dress was evolved in a cold climate while the Indian dress was evolved in a hot climate. How can they be changed without inconvenience and physical discomfort ending in premature illness and decay. Depend upon it, I mean no offence, you look awkward in a foreign dress. It ill-suits you. It mars your natural beauty and dignity. It makes you the laughing stock of the very persons whom you ape and seek to please by your aping. The sooner this and similar manias are given up, the better.

I have not exhausted my list of evil tendencies. I have observed that our school boys and school girls treat their less fortunate brothers and sisters with a sort of contempt. They look down upon them as inferior beings. This assumption of

superiority is quite wrong. It is your duty to extend your love and sympathy to your brothers and sisters. It is your duty to help them and try to bring them up to your level. This duty neglected, your education has been in vain.

There is yet another tendency in our boys and girls which ought to be got rid of. Our boys and girls neglect their mother-tongue—the tongue in which they lisped and prattled in their infancy to the infinite delight of their affectionate parents. The moment the boys and girls are able to put two sentences in English, they forget their vernacular. They correspond with one another and with their parents and relatives in English. They cannot but give sentences in idiomatic vernacular without borrowing a large percentage of English words. I have with me a sample of the Malayalam spoken by two educated Malayalis and with a view to amuse you and also to show how great the error is I will with your permission read it. (Read.) This is really a lamentable tendency.

Ladies and Gentlemen, I am afraid I have detained you longer than I intended. Allow me two minutes more to place before you what I consider to be the sort of education that should be given to our women. Literature, mathematics, elementary science, geography and history are the subjects that are now taught in girls' schools. I do not for a moment dispute the necessity and importance of these subjects. But after all what is required of a woman is the proper performance of her duties in the domestic circle—as wife, as mother, as sister and as daughter. These are the roles in which woman figures in ordinary life. It will be a very good thing if domestic hygiene and sanitation, the responsibilities of married life, the science of maternity, the proper nurture and training of children, the nursing of the sick, domestic economy and kindred subjects are introduced in the curricula of studies in girls' schools. To prescribe the same course of studies for boys and girls, particularly in higher classes, appears to me to be unwise. Each sex has its own peculiar sphere of useful activity. It is not Nature's intention that the sexes should compete with each other in identical walks of life. Women soldiers—for example are thinkable. This

is a wide and controversial subject and I do not propose to elaborate my views now. My point is that peculiarly feminine virtues should be taught and developed in women's educational institutions. They have recently started a Women's University in Poona. In the syllabus of studies in it, I find prominence given to domestic economy and hygiene, sociology, psychology and study of child mind. The idea is an excellent one. In the Government of India's recent circular on Female Education, the following passage occurs:—"It is also generally felt that women should be educated in all that contains enlightened mothering, a good standard of maternal physique, better care of infancy, appropriate feeding, care and management of children, effective attention to children's diseases and generally their physical condition, good sanitary environment and other matters of domestic concern." This shows well that the Department of Education is alive to the necessity of attending to this all-important aspect of female education.

Ladies and Gentlemen, I thank you all for your patience. I see before my mind's eye a vision at once grand and delightful. I see this High School expanding to a College and the College expanding into a University with a large and growing number of High Schools and Colleges affiliated to it. May the vision prove true. And may He who is the light of lights, the soul of souls and the fountain of wisdom, bless you all and lead you on to greater and greater knowledge.

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WITH NOTES AND INTRODUCTION

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OUR IDEAL*.

"Men, my brothers, men, the workers, ever reaping something new,

All that they have done but earnest of the things that they shall do."

Thus does Tennyson sing in his *Locksley Hall*, telling mankind thereby that there is always something which they must strive after and which, though at all times appearing near, is yet beyond their reach. This is what an ideal means; it is a goal, distinctly perceived, persistently pursued, but constantly receding. It lures mankind on to greater and greater efforts and is a most potent influence in the furtherance of human progress. It gives a meaning to the struggles and sorrows, the achievements and jublations of mankind and lends the chief charm to historic events and personalities. Krishna fought for it, Buddha suffered for it, Christ died for it; and all of us, in a greater or less measure, are great or small according as we have it or not.

Ideals, then, have always been, and will ever be, indispensable for the enlightenment and uplift of humanity in general. When that is so, can it be doubted for a moment that for us, educationists, an ideal is more essential than for others? Consider, for just a while, our position. Here we are—professors, teachers and students under training—all engaged, according to our best lights, in the instruction of the youth of this land. Not the bodies only of the boys, but their minds and souls also, are committed to our charge. The responsibility laid upon us is one demanding great thought, great prudence and untiring energy; and, as we discharge our duty well or ill, shall our reward be on the day of reckoning.

But, in the absence of an ideal, of a well-chosen, well-understood ideal, how are we to know that we are working on proper or improper

* Inaugural Address delivered before the Teachers' College Teachers' Association, Junior Branch, by Mr. N. Narayanaiah, B.A., B.L., L.T., Temp. Asst. Teachers' College, Saidapet, with Mr. R.W. Ross, B.A., Vice-Principal, Teachers' College, Saidapet, in the chair.

lines? If we have no ideal in view, will not all our strivings and efforts be mere blind, meaningless, groping in the dark? Remember that all the great educationists of the world—Roger Ascham, Pestalozzi, Rousseau and Herbert Spencer—have been animated by the vision of an ideal, and have devoted the best energies of their lives to the exposition and pursuit of that ideal. Remove these names from the History of Education, and the History of Education becomes (if you will permit me to use a hackneyed illustration) a play of 'Hamlet' with the part of Hamlet omitted.

Recognising, then, that ideals are essential for every one of us, let us proceed to consider what the educationists' ideal is or should be.

I think, gentlemen, you will all agree with me if I lay down the fashioning of the perfect man as our only ideal. It is an all-comprehensive ideal, and every other ideal shrinks into nothingness as compared with this. "The fashioning of the perfect man"—yes: *that's* our ideal mind you, by "the perfect man" I do not mean the terrible monstrosity, the "superman," whom the diseased imagination of Nietzsche conceived and the ruthless hand of Germany is seeking to popularise; but a pure being, who will be as strong in body as in mind and as sweet of form as of spirit; a being full of angelic grace and divine mercy.

To some the doubt may at once occur whether it is ever possible to attain this happy end; whether, human nature being what it is, and the world itself being in a powerful Medea's cauldron, it is not a mere vanity and freak of the fancy to cherish such an ideal and persuade ourselves to make votive offerings on its altar. No, gentlemen, let no such doubt dishearten us and numb our efforts. Human nature is dynamic, not static; and we must understand that "the thoughts of men are widened with the process of the suns." Moreover, the present cataclysm is but a passing phase in the world's onward march: it is not a permanent phenomenon. With the return, therefore, of peace and its sequels, international good-will and harmony, our ideal will

work itself out, slowly it may be, but surely and steadily.

But, then, we shall have to gird up our loins and strain every nerve to help in the growth and consummation of our ideal. There is no use of sitting with folded hands and bungling in the face of difficulties. Suitable ways and means ought to be sought for, attained and adopted.

Let us, gentlemen, pause for a while and think what preparations, if any, we have made or are making for getting to our goal: and first, let us take up that first pre-requisite of success—the training of teachers.

If we look at the training institutions of our country and those of other countries and compare them, we shall be struck by the enormous difference which separates them. We are far behind other civilized nations in this respect. This college here, of which we may well be proud, has been long in coming into its present condition. An old gentleman, who was with me a few days ago, described how this premier training institution of the Presidency was when he studied here as an agricultural student in the eighties of the last century. His description tickled my sense of humour so much that I could not refrain from breaking out into an involuntary laugh. The same gentleman, however, soon followed up with the remark that it was really a marvel what splendid progress the institution had made in the course of a quarter of a century.

Yes, he marvelled at it, and we may marvel too; but, in spite of all that has been achieved, we must confess we have yet a good deal more to achieve even for falling into line with other countries. To take only one instance, that important branch of educational science—experimental psychology—with its laboratory and appliances, is quite unknown to us. Thus, one most important gateway to a knowledge of child-mind is closed upon us. In other matters also, as in this, we lag behind, while others are forging ahead.

Besides, we teachers, are woefully indifferent to the duties which lie nearest to us. We allow splendid opportunities to slip by unheeded. In

the library of this college, we have a number of first-rate books dealing with the 'Theory and Practice of Education'; but how many of us take a sincere delight in reading them? The Government pays for our training, has placed us amid ideal surroundings, and has laid at our disposal what Ruskin has called 'King's Treasures' but, probably, not ten per cent. of us choose to profit by these arrangements. And the reading of these books is far from tedious! Take any book of Prof. Welton's, or Prof. Butler's, or Principal Harris's, and see if it suffers in the least in a comparison with any admittedly interesting novel of the usual type. And, then, what shall I say of those great classics, Locke, Rousseau and Froebel? But, gentlemen, our mental tastes and appetites are peculiarly wayward and eccentric. We are prepared to swallow novel after novel of Marie Corelli's, but not even to dip here and there into Dr. Hayward's 'Science of Education.' If we want to do anything for Indian education, we must first get the better of our waywardness, and eccentricity in the matter of mental pabulum.

Another common defect in us is that we are lacking in enthusiasm. Enthusiasm, of course, is not a marketable commodity; but every one of us can procure some degree of it by adopting the proper attitude to our work. Every instructor of youth must feel that his work is "a sincere mission of apostolate;" that he is toiling for the salvation of mankind; that he has in his hands the threads of human destiny. He must turn a deaf ear equally to the silly prattle of Ignorance and the wicked sneer of Learned Folly. He must view things from a lofty standpoint, and the belief that he is working in a noble cause must bear him up in the storm and stress of earthly life.

I cannot, gentlemen, insist too strongly upon this great fundamental of success. There is no name, famous in history or legend, which does not owe its greatness to this supreme quality of the heart. It was the enthusiasm of Goethe that emboldened him to face fire and sword in order that he might learn from actual experience what "cannon-fever" was like; again, was it not

enthusiasm too that made the great French patriot declare: "Perish my name, let my country live!" Lastly, what was it that enabled the poor, half-fed, scholar of Hungary to walk all the way from his country to India in order that he might have easy access to the land of the Dalai Lama and learn its language? Well, it was enthusiasm, first and last.

The need for greater study and greater enthusiasm is, then, one of the urgent needs of the present hour. But there is also another need which is equally urgent, viz., the need for a revised curriculum.

It has been too much the habit with us to think that what is is always best, that any disturbance of the existing state of affairs would imply a revolution and therefore spell disaster, and that extreme caution is the soundest policy. It is high time, gentlemen, that these pious notions were utterly discarded and spued out of our minds. No great deed was ever yet done by timid hearts and hesitating hands. If one has not the hardihood "to dare, again to dare, and without end to dare," one cannot do anything noteworthy in this world, anything that will last longer than the life-time of a bubble. Socrates and Galileo did not flinch for a moment in proclaiming their precious truths; and he did not utter any meaningless words when he, one of the sweetest souls that have ever graced this earth, solemnly declared: "I bring not peace with me, but a sword."

Every great, every epoch-making event has come about in the nature of a huge convulsion, sudden, strange, unexpected. Is it not, then, a striking manifestation of gross ignorance of history to hold that our curricula had best be what they are? Look about and see what is happening all round. Colossal fads, preached and practised, for decades if not centuries, are blown up and shattered. Now it is Bernard Shaw, now it is H. G. Wells, now it is E. G. Holmes: all of them at once or by turns battering at the same citadel, trying to pull it down, to scatter it to the four winds. The Bastille! the Bastille! the Examination-Bastille! that is the cry all round.

And a terrible bastille it really is; for, whereas the bastille of the *ancien régime* crushed only the life out of its prisoners, the Examination-Bastille of to-day crushes even the soul out of its poor ill-fated victims. Hear what the last of the writers referred to above says: "In every western country that is progressive and 'up-to-date,' and in every western country in exact proportion as it is progressive and 'up-to-date,' the examination-system controls education, and in doing so arrests the self-development of the child, and therefore strangles his inward growth." (HOLMES: "What is and what might be," p. 8). Again, the same writer on another page (129) of the same book says:—"In proportion as we tend to value the results of education for their measurableness, so we tend to undervalue and at last to ignore those results which are too intrinsically valuable to be measured."

Can there be any doubt now that our curricula should be so changed and re-arranged that teachers will feel free of the incubus of examination and divert the self-activity of the child into the proper channels and thus assist him to develop into the ideal man that we have in view?

But we have some very great practical difficulties in our way. It is these which make us, ordinary mortals, stagger, to pause and to think. Let us therefore consider these difficulties one by one and see how far, if at all, they can be surmounted.

When speaking about the means of attaining our ideal, we referred first to want of study on the part of teachers. Besides the natural antipathy of teachers to educational works, there are several contributory causes why teachers do not improve their minds. Very few schools in the Presidency, I believe afford facilities for teachers to be up-to-date in their educational studies. Then, again, there is only a very small number of circulating libraries and reading rooms in our country, and even the shelves of these are seldom provided with a single specimen copy of any educational work. Of course, it is useless to expect teachers themselves to buy such books, for their pay is quite low, although it is not so wretched as it was sometime ago.

This fact of low pay is also in some measure responsible for the lack of enthusiasm already referred to and the unattractiveness of the profession itself. The attractiveness of a profession depends partly upon its emoluments and partly upon its security; now, both these elements are wanting in private service which drafts off a large number of trained teachers. Hence we find that even now the educational department is, to an undesirable extent, recruited from a group of men who are not among the best in the community. It is true that man does not live on bread alone, but he does very largely live upon that.

Public sympathy, again, is not with us, although in recent times there has been a change for the better in this respect too. No doubt the negligence shown by the public to this department is almost culpable; but, I am afraid, we are liable to the charge of contributory negligence. Tell me frankly, gentlemen, what we have done to deserve the gratitude of the public. You may say that you are training their youth; but what sort of training is it? You hammer into their heads a few scraps of information, and you call it training, education. You seldom fit them for their hard life in the world. I know you would answer 'we are not to blame.' But the public hold you responsible for their children, and they will throw the burden of the blame on you.

Again, have the majority of us ever come out of our holes and spared any of our time or energy for public activities? You may say that your work at school is too exacting and too wearisome to leave in you any surplus energy to devote to other business; but the public think—and with some justice—that you belong to the most leisured profession on the globe.

The world, my friends, is not prodigal of its sympathy; its favours are never voluntarily yielded; they are only extracted by means of some superior force.

What, then, should we do if we want to enlist public sympathy in our behalf? The answer may be given in one word—organise. We must

organize ourselves, and organize our forces and efforts. Educational associations with definite aims and objects and a definite propaganda must be established at every important centre. There must be very few restrictions on the admission of members. The mofussil associations must be affiliated to one big central association with its headquarters at Madras. Public meetings must be held as often as necessary and public discussions on all matters of educational interest must be given every kind of encouragement. Cheap educational journals must be started, and they must be circulated among all members of the profession from the highest to the lowest rank. Popular lectures on education must be given periodically, and informal talks with parents and guardians must be had every now and then. Joint associations of parents and teachers—on the model of those established in America—must be formed and thus the public must be made to participate in the noble work of rearing up our ideal men.

Besides, teachers may devote, what little spare time they have, to work in other spheres also. They may undertake civic responsibilities, identify themselves with the public interests of their respective towns or villages, and, in many another way, promote the well-being of their fellow-men. By these means teachers may make the people around them feel that they are factors to be reckoned with and respected—not mere negligible elements in society.

Gentlemen, I have now almost done. I have shown you that ideals are necessary for society in general and educationists in particular; and, if any doubt still exists on the matter, I believe it will be cleared by the following words of Dr. Hayward (himself a great educationist): "All talk about educational 'progress,' whether at political caucuses or at teachers' conferences, is unmitigated nonsense until some definite views, theories, or ideals are possessed by the teachers of this country. Once these exist, there is a basis for criticism and progress; a basis too—though few teachers seem to realize the fact—for the establishment of professional dignity on firm

foundations. But, without views, teachers will be for ever the catpaws of managers and officials no wiser than themselves."—(HAYWARD: "Science of Education," p. 11; R. P. A. Series). Can words be stronger, bolder, more candid than these? Shall we not be guilty of a great wrong if we allow even such words to fall flat on our ears?

No, gentlemen, we will not let them pass unheeded; we will lay them to heart and rally round the sacred banner of education. With full faith in the sacredness of our mission, with our hearts throbbing with enthusiasm and thrilling with hope, we shall carry forward the holy standard unhesitatingly and unfalteringly until we see the day when, in the words of Dr. Horne, "the measure of a man will include the physique of the athlete, the reason of the scientist and philosopher, the feeling of the poet, the imagination of the prophet and inventor, and the will of the reformer. Such men will be practical idealists, with vision to see and energy to execute. Some such fruition as this has already been glimpsed in the greatest characters of human history; those great ones are the earnest of the coming men and women. God is making through present men and women. To aid in this work is the true calling of all noble souls...."

"These words contemplate particularly our teachers. Theirs to inform young people aright as to bettering the race by selected heredity, by improved environments, and by good-wills; theirs to provide the right environment in the schools; theirs to cultivate their own souls as the most important influence upon their pupils; theirs to aid in building moral character; theirs to receive the wages of going on; theirs to recognize, appreciate, and apply, with all parents and citizens, the chosen means of the Divine Purpose in perfecting mankind." (HORNE: "Idealism in Education," pp. 176-177).

THE ETHICAL ASPECT OF SCIENTIFIC RESEARCH.*

PROFESSOR R. A. Gregory, the author of many excellent Science text-books, needs no introduction to the educational world. His new book, "Discovery or the Spirit and Service of Science," intended for the general reader and written in a fascinating style, is a compendious record of the intensely interesting history of the labours of scientific men from the earliest times, referring to the work of more than three hundred investigators including over ninety living scientists. The main purpose of the book is to disprove the common belief that the spirit of scientific research is cold and mechanistic, and that the development of the more spiritual parts of man's nature belongs to other departments of intellectual activity. Prof. Gregory has succeeded in his task, and he has shown how the history of the progress of discovery in all branches of science is a continuous record of self-sacrifice, courage, patience, hope, sense of duty, persistence, humility and nobility of purpose. Not only has Science conquered disease, increased the comforts of life, and added to the material wealth of man, but the spirit of scientific research has in all ages inspired the highest ethical thought and action.

"Whether science is studied for its proximate value or for the sake purely of increased knowledge, it creates a consciousness which transfigures life. Neither it, nor philosophy can satisfy the religious instincts of the plain man who requires a personal and social being to worship. But though religion exists without science, there is no science without religion, and the study of the laws of nature creates a respect for them and reverence for their Maker, of a far profounder kind than the ordinary mind can conceive."

Herbert Spencer said truly, "Science alone can give us true conception of ourselves and our relation to the mysteries of existence." The mind that thinks in words and sounds the depths of interstellar space, and deals with the infinities discovered by the microscope on the one side and by the telescope on the other cannot perhaps be

brought within narrow religious formularies, but it is essentially devout.

It is not possible here to give a comprehensive view of the contents of the book. Every page is replete with the wonderful but absolutely veracious stories of the enormous self-sacrifice, courage, perseverance, humility, devotion and love of humanity that have inspired the pursuit of truth from the earliest times, in spite of failure, difficulty, opposition, poverty, oppression and even death. Thirty-three years before Galileo was brought before the Inquisition, Bruno had declared to the same body his Astronomical creed. For teaching his doctrines, Bruno was handed over to the Governor of Rome, with the usual recommendation that 'he be punished with as great clemency as possible and without effusion of blood,' i.e., burnt at the stake. For liberty of thought and freedom of science, Bruno perished, saying "you who sentence me are in greater fear than I who am condemned."

Says Prof. Gregory,

"We need not go back three hundred years to find scientific workers who have been deprived of their posts or whose careers have been ruined, because of their convictions. The man who to-day dared to teach doctrines so revolutionary as those held by Galileo, so opposed to conceptions of what is sacred, and contrary to what public opinion considers to be true, may not be tortured or imprisoned or burnt, but he would assuredly suffer social ostracism and would lose position and friends as sadly as Galileo did in his old age."

Pasteur and Lister formed a brotherhood of science labouring to diminish the sorrows of humanity. Yet the principles taught by both met at first with nothing but opposition or indifference. Fifty years ago the slightest surgical operation was attended with great danger. By a long and systematic investigation Lister was able successfully to trace the causes, and founded modern surgery.

Nothing could be more elevating than some passages in the history of modern scientific discovery:

"In the year 1900, the President of the United States appointed a Commission of five with Dr.

Walter Reed at its head, to carry out investigations in the island of Cuba with the object of discovering the cause of Yellow fever. Believing that the mosquito theory could only be tested by actual experiment upon a human subject, one of the members of the Commission, Dr. Lazear permitted himself to be bitten by a mosquito which had previously bitten a person suffering from Yellow fever; with the result that he contracted the disease and died in a few days."

The tablet erected to his memory reads, "With more than the courage and devotion of the soldier, he risked and lost his life to show how a fearful pestilence is communicated, and how its ravages may be prevented."

The Liverpool School of Tropical Medicine sent Dr. Durham and Dr. Myers to Para to study Yellow fever there. Both fully understood the dangers to which they would be exposed and the risks they ran. Both contracted the disease, and Myers died from it—a victim to his love of science and humanity. The name of Lieutenant Tulloch who likewise gave up his life for the investigation of Sleeping-sickness in Uganda, must also be added to this honourable roll of courageous martyrs.

The greatest crime of the French Revolutionary Tribunal of 1793 was the condemnation to death of the great chemist Lavoisier, the founder of modern Chemistry, who met his death calmly and with dignity. He died because he was the champion of the French Academy of Sciences against the National Convention.

Prof. Gregory strongly pleads for the encouragement and support of investigations which seemingly offer no immediate use. Discoveries which lead directly to development of industry and manufacture, says he, may almost be left to take care of themselves. Not so these, which demand the greatest amount of originality, inspiration, and enthusiasm, to produce apparently insignificant results.

Discoveries like that of phosphorus by Brandt, of the electric oxidation of nitrogen by Priestley, of potassium and sodium by Davy, of aniline by Unverdorben, of benzene by Faraday, and of chloroform by Soubeiran, seemed at the time

never likely to be of the slightest use to any body—Sir William Crookes.

The seven wonders of the modern world,—wireless telegraphy, the telephone, the aeroplane, radium, antiseptics and antitoxins, spectrum analysis, and X-rays, had each one of them its foundations in pure laboratory work without any deliberate intention or prospect of practical use.

"Compared with the growth of science, the shiftings of Governments are minor events," said Professor C. S. Minot. But it is a painful truth that public opinion even in western countries has not yet reached such a stage as to render it unnecessary to write books whose main purpose is to create a sufficiently sympathetic attitude towards scientific investigators. The humble and seemingly barren beginnings of investigations which have led in the end to some of the most wonderful revolutions in human activity have not yet taught their lesson to the leaders of society and governments. Wealth and power have not yet fully understood the high motive and dauntless spirit of the scientific investigator, and even after reaping all the fruits of his labour, have not given him his proper place in the world's economy, far above conquerors of countries and leaders of political parties.

"The Royal society was unable to find the money required to print Newton's *Principia*, and it was published at the expense of his friend Halley. Our scientific societies are in little better position to-day. Their members—most of whom possess but very slender means—pay by their own subscriptions for the publication of the results of their investigations. While the State grants made by Great Britain towards the expense of the publications of learned societies is limited to the sum of one thousand pounds annually to the Royal society, several times this amount is expended each year upon stationery alone used by the members of the House of Commons."

Once, after a lecture at the Royal Institution in London before a distinguished audience, when Faraday exhibited some unimpressive experiments showing how a magnet suddenly brought near a coil of wire produced a slight current of

* *Discovery or the Spirit and Service of Science*. By Prof. R. A. Gregory. (Macmillan & Co.) 5s. net.

electricity in the wire, he was asked by a lady, who probably voiced the feelings of most of the audience, "But, Professor Faraday, even if the effect you explained is obtained, what is the use of it?" Even W. E. Gladstone's imagination had not range enough to understand the importance of the new discovery which Faraday once endeavoured to explain to him and several others. The great Premier's only commentary was, "But, after all, what use is it?" "Why, sir," it appears Faraday replied, "there is every probability that

you will soon be able to tax it!" The world now knows the ultimate developments of Electromagnetism.

Reproductions of eight paintings by eminent masters symbolising science is a not unimportant feature of this publication. The book ought to be in every school library to serve as an incentive to scientific studies and as a stimulus to high endeavour.

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THE HINDU UNIVERSITY OF BENARES—A FEW THOUGHTS AND SUGGESTIONS

By Mr. GANESH GANGADHAR JAMBHEKAR.

The idea of the Hindu University of Benares had long been in the air. But to this airy nothing a local habitation, and a name have at last been given by the passing of the Hindu University Act in the Imperial Legislative Council on the 1st of October, 1915, and by laying the foundation-stone at the hands of Lord Hardinge on the 4th of February, 1916—a day rendered ever memorable on account of the highly imposing ceremony performed on the occasion, as also marking the beginning of a new era in the annals of Hindu India. Indeed for this great beneficent service we cannot but express a hearty vote of thanks on behalf of the Hindu people to the chief promoters of the scheme and especially to the noble Pandit Madan Mohan Malaviya whose virtuous zeal, perseverance and tact have enabled him to triumph over the many practical difficulties connected with this *magnum opus* of his very useful career.

The successful realization of the idea of the Hindu University means a good deal. It means a living monument of Hindu solidarity. It shows that our fellow-countrymen in the distant provinces can co-operate for a common national purpose. It opens a new epoch in the life of the Hindu people. It proves that the inertness of the nation is speedily disappearing and that there is a response to the call of national duty and regeneration.

As yet, the Hindu University, however, is more or less a paper constitution; and that too not as satisfactory as the people would have it. Powers have not been freely bestowed though we have been assured that the Government authorities will scarcely have any occasion to interfere. But the world of fact is one of compromise, and we have to be contented with what we are able to obtain after a strenuous effort to reach the ideal. Nor can it be forgotten that even with an imperfect constitution considerable benefit may be derived if we exert ourselves to the utmost. There is certainly some truth in Pope's observation "For forms of Government let fools contest; what's best administered is best." This can be discerned from the fact that even with the same constitution regulated by the Curzonian Act 1904, all Indian

Universities have not achieved equal progress. The Calcutta University though not less handicapped has probably shown much better work than the other sister Universities.

Thus then, the Hindu University will be what we will make it. Its successful working in spite of the defects of the constitution will be a real test of the organizing capacity and co-operative spirit of the Hindu race and will furnish an extensive field for the display of our talent and practical ability.

Now that the University has been baptised and localised, the foundation-stone laid and building work commenced, the Educational Organization Committee must begin its work in right earnest. We do not know if the Committee has been formed or of whom it consists. But let us trust that with the Hon. Dr. Sundar Lal who is one of the chief promoters to the Hindu University scheme and also a Vice-Chancellor of the Allahabad University, it will be an efficient Committee including the wise men of all provinces.

The task of the Hindu University is stupendous. We must realize at once that such a University cannot justify its existence by being a mere addition to the present day officialised Universities in the country. Its claim to the gratefulness of the Hindu community rests on a different foundation. Unless it tries to eradicate the evils of our present Universities it is bound to fail of its cherished consummation, consequently we propose here to discuss briefly a few facts of cardinal importance and hope to point out the way in which the new University may be deemed to have fulfilled its high destinies.

What, then, are the great drawbacks of the Indian Universities of to-day and how are we going to remedy them in the Hindu University? Firstly the Indian Universities are mere examining bodies. The system of founding University lectureships is too recent to be productive of any immediate good and there are certain aspects which prevent it from reaping a full benefit. The examining character of the Universities, therefore, is practically retained and tends to lay an inordinate stress on examinations which by their peculiar nature in India become the sole test of efficiency. True, the prescribed courses define a particular standard of intellectual equipment. But the whole system works more like a soulless machine than as a humanizing agent. The Colleges not being localised in a single neighbourhood, a teaching University is an impossibility and the quality of instruction

suffers to no small extent. Mere mental training, moreover, does not bring out the best in man, and ignores other important elements in his making. These defects are calculated to be removed by the teaching and residential characters of the Hindu University. Under our present circumstances, however, it is doubtful if such a University can be regarded as of the highest practical utility. For one thing, we have too few Universities in the land as compared with its extent and population to allow us to restrict a new one to a single neighbourhood; and in the second place, it will probably be a burden to a large majority of our poor country men. But a teaching and residential Hindu University is now a settled fact, and we have to start on that assumption in considering proposals for increasing its efficiency.

Secondly and this is perhaps the most important consideration, the present type of Indian Universities is completely exotic in character. Not only is it a tree transplanted from a foreign soil, but it is also being nurtured by foreign methods and appliances. True education, however, is an organic development. Hence, unless we try to build on the natural aptitudes and instincts of our race, we shall not be able to evolve a genuine national culture, the resuscitation and the advancement of which ought to be the chief ideal of the truly national University. Yet, if we look to the history and curricula of all Indian Universities, we shall find that all these decades, a foreign culture is being obstinately grafted upon us with the result that the Indian generally becomes a more memorising machine with hardly any assimilation or originality. In every subject that he studies, there is an appeal to foreign experience and foreign environment which arrests a healthy intellectual and moral development. Whether it is art or poetry, philosophy, or history, European standards of judgment and systems of thought have displaced indigenous ones with perhaps a meagre acquaintance with the latter.

Thirdly our present Universities have not only failed in building national culture; but they have also ill-succeeded in disseminating the one they have so long aimed at. University education in India is at least half a century old. Yet, it has scarcely extended to the whole upper stratum of Indian society. When we consider that after more than three generations the proportion of English literary—not of English cultured minds remember—is sadly so low as not to be even one per cent.,

what hope can there be of our being able to disseminate English culture throughout the masses supposing it were desirable! The reason for this awfully tardy growth is apparent. No education can ever be successfully imparted to a people unless through the medium of their own vernacular which lends a marvellous ease in instruction. Still, India is probably the only solitary instance of a great civilised people made to receive education through a highly inconvenient foreign medium. The greatest sin of Universities in India is their unpardonable neglect of Indian vernaculars. It may be that the principle of economy has dictated such a policy. But it is a very questionable kind of economy which deteriorates national intellect and efficiency.

Fourthly, the Indian Universities of to-day are too literary in character. Happily, the last few years have witnessed a tendency towards making them somewhat more practical. Nevertheless, it still remains true that they are not showing themselves fully conscious of modern needs. So many different branches of knowledge are being cultivated in the west every day that unless we go on including the more important of them in our curricula, our Universities will degenerate into mere academic bodies losing all touch with the affairs of life. Open the calendar of any famous European or American University and you are struck with the rich variety of subjects in which their alumni receive education. We, in India, are in this respect at least a quarter of a century behind the average University of the west. We have yet to realise that University education is not simply for adornment or for the cultivation of the speculative faculty; but that one of its chief aims is and ought to be to cultivate those departments of knowledge which promote national well-being and efficiency. From this standpoint, it is of the utmost importance that the Hindu University should pay its earnest attention from the very beginning to the study of science both pure and applied. We may here be permitted to sound a note of warning that the promoters of the Hindu University will commit a fatal blunder if they make it a medieval University by evincing greater solicitude for the study of the ancient classics and theology, law and philosophy rather than for technology and commerce, agriculture and forestry, medicine and the fine arts. For the crying need of the day is a modern University cultivating various departments of science without ignoring Indian humanities and contributing far more than any other Indian University of to-day to

the promotion of material well-being of the Indian people. The Hindu University will certainly not be taken to have fulfilled its high destiny if most of its alumni become as keen and helpless service-hunters as those of to-day.

Fifthly, the Indian Universities are so mechanically conservative and rigid that they cease to be living organizations capable of adapting themselves to individual needs and aptitudes. The waste of intellectual powers through the want of a congenial choice of studies which promote unnecessary cram, the hard and fast rules of examinations which prevent a candidate from economising his time, energy and finances, the heavy toll of failures resulting in hopeless discouragement rather than in the attainment of a higher standard—all these and other kindred short-comings which are in sharp contrast with the best usage of the west have the cumulative effect of retarding the rapid growth of education and a better utilization of the national intellect.

Sixthly, University education in India is tending day by day to be so expensive that the Anglo-Indian bureaucracy sees justice in the fact that it is becoming the privilege and luxury of the few. This, however, is a highly undesirable tendency and we ought to see that higher education in India is not deliberately made an exclusive preserve for the wealthy. The doctrine of efficiency as measured in terms of much wasteful expenditure is extremely mischievous in a country where the large intelligent majority mostly consists of students of comparatively poor parents. It is universally admitted that India is a very poor country. But the fact ought not to stand in the way of higher education the opportunities for which should be offered to the deserving as freely as possible. In this respect, the example of America and Japan is certainly commendable and deserves to be copied. If we scrutinise the expenditure on higher education in India, it will be found that a considerable portion of it is due to the sumptuous salaries received by the privileged members of the I. E. S. It is well-known that these are much higher than those paid to the best European, American and Japanese professors, and what is worse we get withal generally third or fourth rate men of British Universities. The Hindu University need not waste its funds on

extravagant salaries inasmuch as it is not bound to employ I. E. S. men without distinction. A wise course would be to send our most promising students, after they have finished their studies in India to foreign countries for the prosecution of higher studies, and to employ them on decent salaries when they have returned fully qualified to teach their respective subjects. We do not say that European professors should be totally excluded from the new University. But we do say that the most responsible posts should always be filled up by Indians alone, that Indians of equal, and even of superior ability could be employed on much lower salaries and that the economy thus effected would be very important both for its own sake and in the interests of the people.

Lastly, we notice one other glaring defect of Indian University education. Perhaps, the evil is not very apparent to the foreign educators in the country. But there can be little doubt as to its existence among the alumni of the different Universities in the land. It is the poor morale of the average Indian graduate if we may so call it. Physical degeneration indeed is growing so apace in the educated youth of the country that it cannot but be a source of deep concern to all thoughtful Indians. Even more than two decades ago the early mortality of Indian graduates had attracted the attention of the lynx-eyed Ranade who tried to investigate its causes in a paper now published in the latest volume of his speeches and writings. And this tendency has not certainly been less remarkable in recent years. On the face of it, it looks not a little strange that English education should exert such a baneful influence on Indian students. But on a closer analysis, it will be found that the constant nightmare of examinations the inordinate importance of which promotes cram; the insidious but sure burden of having to learn everything through a difficult foreign tongue; the want of a sufficient number of elective courses of studies and the hard mechanical technique of Indian Universities, and above all a more or less complete negligence of physical culture caused by making memory-feats the main test of efficiency—these and similar other causes go a long way to account for this poverty of blood and weakness of limbs. The moral condition of the average student too, is not quite satisfactory.

It may be conceded that regular moral instruction is not to be expected from a University and that the study of humanities if pursued in the proper spirit is no less useful in the inculcation of moral principles. Nevertheless, it is to be remembered that the scanty acquaintance with a few English classics fails to realise this object in India. Nor can we forget that Indian literature—ancient and modern, can alone help the formation and healthy growth of Indian moral ideals. The Hindu University, therefore, will do well to remedy these evils by requiring physical fitness in its alumni and by providing for the study of Indian literature far more liberally than is done at present.

By noting some of the salient defects of the Indian Universities of the present day, we have seen in what direction the Hindu University should inaugurate reform. We shall now make a few practical suggestions of supreme moment.

The Hindu University ought not, and we believe is not to be founded on mere sentimental grounds. We want it in the main for the realization of certain definite ideals which we cannot hope or find it extremely difficult to reach under the present orders of Indian Universities. These we chiefly take to be firstly, the preservation, resuscitation and propagation of Hindu culture, and secondly, the cultivation of modern sciences with a view to advance the material well-being of the Indian nation. Now it should be clear that these objects can be best achieved only if this culture and knowledge be imparted through the language of the people. No serious student of educational psychology will doubt the truth of this remark inasmuch as all knowledge can be successfully acquired, assimilated and disseminated only by means of the mother-tongue. What then is the duty of the Hindu University? It is to convert itself into a vernacular University at as early a date as possible. Our readers need not shudder at this bold statement. For that is the only logical outcome of an attempt to reconstruct national life and education on a sure foundation. We do recognise that here in India we are confronted with a host of vernaculars spoken by the people which apparently renders this task almost impracticable. But the difficulty is not quite insurmountable. Though the Hindu University has received a warm support from the princes and people throughout the length and breadth of the land, there will be very few, we suppose, who will be so dogmatic and narrow-minded as not to allow the

Hindi language to become the chief medium of instruction. Because, if any single vernacular of India can possibly be the medium in the Hindu University, it is Hindi and Hindi alone. The United Provinces which are to be mainly benefited by its foundation are the home of classic Hindi which is also the leading vernacular of the several neighbouring provinces, if we ignore the small differences in pronunciation and idiom that are to be found on every part of the globe. There can be little doubt that more than two-thirds of the alumni of the Hindu University will have Hindi for their mother-tongue. Hindi, moreover, may be said to be the *lingua franca* of new India—at least it has the best chance of being one, since it is not only well intelligible to the various peoples of Northern India, Guzerat, Maharashtra and the Central Provinces, but it is the only language with which the Dravidian people of the south may hope to be soon familiar. Our Mahomedan brethren too, can understand Hindi to no small extent. Thus even to-day without any conscious attempt, it is not only the mother-tongue of the largest portion of the Indian people but can be used for all practical purposes by all Indians with no great effort. We have to remember again that the age of vernacular Universities in India is already dawning. The Mysore University seems to lead the way and the foundation of other vernacular Universities is only a question of time. It is, therefore in conformity with the spirit of the times that the Hindu University or Benares should become a vernacular University of the province promoting at the same time the growth of the *lingua franca* of Modern India. Indeed, if we may be permitted to take the mantle of the prophet on our own shoulders, without too much presumption, we may well say—and we need not grumble for it—that the citizen of the New Federated India shall be bilingual if not tri-lingual. In addition to his own provincial vernacular which will generally be his mother-tongue, he shall cultivate Hindi as the *lingua franca* though he may not dispense with English altogether. For these reasons, it is in the fitness of things that the Hindu University should be *de facto* a Hindi University.

When we maintain that the Hindu University should be a Hindi University, we do not certainly mean that all University work can be carried on

through that vernacular from its very inception. It may be admitted at once that though the Hindi language is most widely known in this country, there is more than one vernacular to-day, which surpasses it in rich and varied literary treasures. What we mean is that the Hindi language has the largest potentialities and that if an earnest attempt be made, it will soon rank not only as the principal vernacular of India both in point of richness and extent, but will easily lend itself as the chief medium of instruction in the Hindu University.

Even to-day, Hindi can certainly be made the medium of instruction in all grades of secondary education and in some departments of University studies. This again will appear highly presumptuous to many a reader. But it is not. It looks abnormal only because it is the bug-bear of the Anglo-Indian educational bureaucrat who is ever anxious to maintain the supremacy of the English tongue in secondary and higher education.

There are not few Indians of large educational experience among us at present who hold that education through the medium of such a foreign tongue as English puts an enormous strain on the minds of the young scholars in our schools and that a far greater amount of efficiency and breadth in studies may be attained within the same period by teaching all subjects except English in the boys' mother-tongue. Stray attempts made in this direction in different provinces prove the soundness of this view and sooner or later this important educational reform is bound to come in spite of organized opposition. We have at least half a dozen Indian vernaculars to-day sufficiently advanced to be usefully employed in this way. Speaking from our knowledge of our own vernacular—Marathi, which cannot be regarded as a singularly rich tongue in India, we are convinced that we can immediately make it the chief medium of instruction not only in the full high school course but that with competent teachers most of the subjects of the Arts course up to the B. A. standard in Indian Colleges may be as ably handled as in English. And this we believe is not less true of Bengali or Guzerati, Hindi or Tamil. Detractors of Indian vernaculars will peremptorily ask 'where are the proper text-books.' It may be true that those are not easy to find. But have they ever paused to consider that the law of supply and demand applies even to the production of such a commodity as text-books? Has there ever been an instance in which a strong Committee

being formed for the preparation of text-books, it has failed to bring them out? or has the Educational Department given hearty encouragement to private enterprise in this direction? From what we know of the conditions in our own province we may safely affirm that the difficulty of finding proper text-books is more or less imaginary and that very useful text-books may be compiled within a couple of years by appointing a strong Committee of experts.

The difficulty of imparting knowledge of modern science through the vernaculars is more real. For modern science abounds in technical terms which on account of unfamiliar conceptions and applications are not easy to render in our own tongue. Nevertheless, this difficulty is not too great to overcome. All Indian vernaculars not excluding even those of the Dravidian stock having a common and rich store-house in the Sanskrit language can easily draw upon its treasures to coin new convenient words and expressions. The question of scientific terminology is of great significance in Indian pedagogies and cannot be dealt with at this place. Yet, it may be noted that if Japan with a language far less elastic and rich could make herself bold to impart even higher scientific knowledge through her own tongue we need little despair that we shall ill succeed in our attempt. It will, however, be well to remember in this respect that we should not depend too much upon Sanskrit words in translating scientific ideas. Some scholars in their favour for purity are so extravagant in the use of Sanskrit words and inflections that the newly-coined word presents a more serious difficulty. It should, therefore, be the endeavour of writers and translators to attain as much purity as may be consistent with clearness and economy of expression, which being the principal aim even importations of foreign words where inevitable should be deemed excusable.

Though the advocates of Indian vernaculars are agreed as regards the desirability of employing them as the chief medium of instruction, there are different shades of opinion with respect to the extent to which they can be so employed. A large majority of them is perhaps very sceptic about the possibility of ever using the vernaculars as the medium of instruction in higher studies. Still we need not be so unimaginative as to consider such a claim to be a cry for the moon. Speaking for Marathi again, it need not be thought preposterous if some were to plead for its use in college studies,

As we have said above, it is quite possible for competent teachers to lecture on such subjects as Sanskrit, Philosophy, History, Politics and Economics in Marathi, even to-day. When a language is capable of being used to expound clearly and elegantly such difficult subjects as above, it is immaterial that there are no text-books. For their absence is due to the absence of demand, which when urgent, the supply will naturally follow. Indeed, is there any justification for teaching Sanskrit to Indian students through the medium of English?—and this not only in colleges but even in schools when a boy just begins to master the difficult rules of *Sanskrit*? Can there be anything more monstrous? Is it sound psychology? What would be the feeling of a boy in an English public school if he were made to learn Greek or Latin through Hindi or Bengali? Yet this is what exactly happens in India. Now would it not be possible to cultivate a more genuine love for Sanskrit literature through an Indian vernacular? Nay more. It would be practically impossible to attain such thorough mastery as that of our Shastris by trying to study such works as Panini and the Bhashyas through such a foreign medium as English. The same is true of philosophy. What we read in colleges to-day is mainly an outline of European systems of this subject which are more or less foreign to our experience. All knowledge must grow from within. Would it not, therefore, be more salutary if European philosophy came in only as a supplement to Indian philosophy? And would not Indian philosophy again be made more interesting through the vernacular? Nor need we despair in such an attempt. Before the publication of the "Gita Rahasya" of Mr. Tilak, there were not few who doubted that European philosophy could be made so amazingly attractive in Marathi. But the apparently impossible has been accomplished. As for history, there has been such a valuable research in Maharashtra during the last thirty years that few academics even in the west will be able to show a superior record; and all this is being done in the vernacular pure and simple.

What is true of Marathi is perhaps truer of Bengali and not less or much less true of Hindi and some other Indian vernaculars. Why then should it be deemed impossible to teach in the near future most of the subjects of the Arts course in colleges of the Hindu University through Hindi?

Our present Universities with English reigning supreme in every sphere are too jealous to allow Indian vernaculars to take their proper share as the history of the Bombay University will amply prove. There the battle of the standards raged furiously, though English was never sought to be displaced from its superior position. Even such a veteran soldier as the late Mr. Justice Ranade fought in vain to get due recognition for the vernaculars. And we have not advanced a step further during the last fifteen years in this direction. Such is the bigotry of the officialised University! Surely, the leading vernaculars of India should at least be recognised as a compulsory subject of college studies. But looking to past experience we cannot be sure whether this reform will see the light of day for at least another decade. And as for the vernaculars ever being employed as the medium of instruction in higher studies in our present Universities, we may well wait to the day of doom. For it is a fundamental defect of their very constitution. A vernacular University can only be founded in a province formed on the linguistic basis, while those of to-day were established on the political basis.

The Hindu University, therefore, has to fulfil a very high destiny. It has to accomplish the unaccomplishable under the régime of existing Universities. And in this lies its main justification. Even if it helps to secure a much better recognition for the vernaculars than they now enjoy, it will have achieved no small good. The Hindu University is to be a chartered University and as such it will stand on a footing of perfect equality with the older Universities. But be it remembered that the foundation of this equality should not be royal favour but that it should command that position by virtue of its sterling merit. Nay, it should be the model to all the existing Universities in all academical matters. To attain this ideal it should be its deep concern to be ever above reproach so as not to allow its standard of scholarship and character to fall below that of others. Its popularity and efficiency will of course be judged by its own results. But the status which other Universities will be prepared to concede to its alumni will also be taken as no false index to its merit. Accordingly, the first care of the promoters of the scheme ought to be to secure due recognition from other existing Universities for its own Matriculates. This step cannot but have an effect of a far-reaching character.

ter. The teaching and residential ideal of the Hindu University has prevented the establishment or affiliation of other colleges in the different provinces. But we believe it is permitted to start High Schools preparing for its Matriculation provided they teach the prescribed courses. Now if these prescribed courses of the Hindu University use the vernaculars as the principal medium of instruction without in any way lowering the standard of scholarship obtaining at present, these Matriculates few of whom would afford to go to Benares will naturally join the University nearest to them; and if they be found to have developed a better understanding and character, the orthodox Universities, too, will be forced willy-nilly to use the vernaculars far more extensively than they are inclined to do now.

Consequently a practical programme for the Hindu University in the immediate future would be to so formulate its courses as to give as large a scope to the vernaculars as possible, consistent with at least as much efficiency as is aimed at by the existing Universities. With a view to popularise its own work, it should at once set about starting new High Schools, in the different provinces preparing for its Matriculation, under a wise system of Grants-in-Aid. Again, secondary education at least should immediately be imparted through the vernacular of the province in which the school may be located. And this ought to be done without lowering the standard of English which would be considered a sure triumph for the new University. It should be remembered that it is not enough to make vernacular the chief medium of instruction unless candidates are expected to write their examination papers in their own mother-tongue. For this purpose some half-a-dozen languages should be first recognised. As for the college course, the study of the candidates, vernacular should constitute a separate compulsory subject on the same footing as Sanskrit and English. The course may be made somewhat easier for students of science in whose case, too, its study should not be considered less indispensable. For in this way alone, a genuine love for the mother-tongue could be created which will then naturally express itself by writing or translating scientific books in the vernacular. The vernacular need not form a compulsory subject after the B. A. or B. Sc. though this does not prevent its being recognised as a single independent subject of study for the M.A. To make this scheme practicable, a strong

Committee of experts should be forthwith appointed to bring out a series of good Hindi text-books for the High School course. This programme can be easily carried out in the first few years of the Hindu University. The next step will be to make Hindi the chief medium of instruction in the Arts course of the University after which a further development of the vernacular will be a question of time which may be left to its own potentiality. This work may be reasonably expected of the new University during the first ten to fifteen years of its existence and on its power to accomplish it will chiefly depend its success or failure.

We have laid great emphasis above, on a wider use of the vernaculars on purpose. For we believe that it is the immediate step in our educational progress. As this paper has already exceeded its limits, we may consider at some other time how the Hindu University may hope to realise its other ideals.—*The Hindustan Review.*

UNIVERSITY OF BOMBAY— CONVOCATION ADDRESS.

The following address was delivered by the Rev. Dr. D. Mackichan, M.A., D.D., LL.D., Vice-Chancellor of the University of Bombay:—

Mr. Chancellor, Members of the Senate, Ladies and Gentlemen:

We are assembled this evening in Annual Convocation to admit to a place in the ranks of the graduates of this University those young men and young women who in ever-increasing numbers are coming forward to claim this honour.

In welcoming these new aspirants to the position they have won we are reminded of those who have passed from us after years of honoured service in this University, in the professions they have pursued, and in the public life of the city and the State.

Since we last met in Convocation two of the Ordinary Fellows and six of the Honorary Fellows of the University have been removed by death. Of the two former Sir Pherozeshah M. Mehta, our late Vice-Chancellor, was the most eminent, so eminent as a son of the University and as a leader in our public life that it is not necessary to remind you of the place which he filled in these different spheres. Death claimed him before he could receive at the hands of the Chancellor the honorary degree which the University, by the unanimous vote of

the Syndicate and the Senate, had resolved to confer on him. To all of you it must be gratifying to learn, from the Report which has been presented by the Registrar, that the name of Sir Pherozeshah is to stand permanently in its appropriate place beside that roll of honour, to which during the past year fresh lustre has been added by the insertion in it of the names of Dr. Dadabhai Naoroji and Lord Hardinge of Penshurst, the beloved Viceroy who so recently left our shore.

Professor Isphahani, the other of these two deceased Fellows, was a man of a different type and eminent in quite another sphere. During a long period of service as a Professor of Persian in three of our Colleges, Samaldas College, Willson College and Elphinstone College, he did much to promote the study of his mother-tongue and its literature in this University. Modest and unpretentious, he won for himself a place in the academic life of the University and in the affection of its students which will long remain unfilled.

Professor S. R. Bhandarkar, son of the veteran scholar who is still spared to us, is another name that will be missed by many of us. For a number of years he held office in this University. Returning to the service of the Educational Department, he occupied the position of Professor of Sanskrit in Elphinstone College and, on his retirement from this service, was appointed to a similar position in Wilson College which he held until his death, which took place in the early part of this year. As a scholar he was conspicuous for his industry, his wide reading and his large attainments. He kept himself abreast of the literature of his subject and possessed a first-hand knowledge of the writings of the leading Sanskrit authorities in the Universities of the Continent. More worthy of mention even than his scholarship was the stern uprightness of his character. His love of truth, his inflexible honour, these should continue to be an example and an inspiration to the young men of this University.

The late Mr. J. N. Unwala, for so many years Principal of Samaldas College, is another of the scholars of an earlier generation who have been taken from among us. His life was spent far away from this University centre and his name was thus less known to many of you than the names I have already mentioned; but in his own sphere he exercised a lasting influence on the students of Kathiawar and helped to build up the name and reputation of one of our distant Colleges.

Persian and Pahlavi scholarship has suffered a great loss in the death of Mr. Sheriârji Dadabhai Bharucha who won distinction in that field. In the Medical Faculty the names of Dr. K. R. Vicosaji, one of the first medical graduates of the University, Dr. Gomes, and Lt.-Col. Childe, I. M. S., have passed out of the list of our Honorary Fellows and in the Faculty of Engineering that of Mr. G. R. Tilak, L.C.E., the first to obtain this degree in the University. Lt.-Col. Childe had already retired from service; but in response to the call of the Empire he spent his last days in ministering to the Indian soldiers wounded on the Western front and died almost literally at his post, winning for himself a title to a place in the British roll of honour.

The names which I have mentioned remind us that the first generation of our graduates has well-nigh passed away. The places which these pioneers in the field of higher education have left vacant are now occupied by a new generation of scholars, who in turn will be succeeded by those whom we have to-day admitted to their various degrees. It is thus a time which invites to reminiscence and also calls for new departures in connection with the activities of the University. The time may appear to be inauspicious for new undertakings, for we are still under the cloud of war. Its baleful shadow falls upon us everywhere and at every time. This circumstance gave subject and colour to the address which your Excellency as Chancellor delivered from this place a year ago. Your impressive and inspiring message is still fresh in the recollection of us all and its lessons have found continuous illustration in the experiences of another year of deadly international warfare. Events which will lead to the end (May God speed it!) of this cataclysm of devastation and of death are in progress and we are beginning to look more definitely into that period so often summed up in the words "after the war." The Allies are already concerting their economic measures against the coming time. We too should not feel precluded from the consideration of the kind of future to which as a University we should look forward.

Your Excellency's exposition of the principles which are at stake in this struggle and the attitude which these require in us has found a response in the thoughts and feelings of that India which has been to so large an extent "the creation of our

Universities." It fills us with joy to see India ranging herself by our side in this conflict. The liberality of her princes, and the sacrifices which her sons have made, of strength and so often of life to make victory speedier and more sure—these have aroused a wonderful enthusiasm throughout the British Empire. But to my mind there is something more significant than all this aggregate of service and co-operation. I mean the intellectual and moral sympathy which this great crisis has called forth between India and the rest of the Empire. It is not knowledge which moves the world but spiritual ideals and moral convictions; and when Britain was moved, in response to the call of duty and honour and of humanity to enter into this conflict, the uppermost thought in the minds of those who were concerned as to India's future was not, whether India would take her stand alongside Great Britain and her Allies on the stricken field, whether her Princes and Rulers would lay their treasures at the feet of the Emperor; but whether the heart of India would respond in inward appreciation and sympathy to the spirit in which our nation was entering on this world conflict. To those of us who have sought to understand the attitude of the enlightened classes of India in regard to this momentous struggle it has brought unmingled gratification to find that the heart of India beats true, that to India also those ideals are precious, in the interest of which Britain and her Allies were impelled to enter on this war. These are ideals which India too regards as sacred and she has taken her place in the front of battle in widely separated regions of the earth not simply because her soldiers were called to the colours, but because India felt herself to be one with the whole Empire in those spiritual convictions, which lay behind the movements of her armies and which inspired the stern resolve to conquer in this strife.

Surely it is something which touches most intimately the life and spirit of our University that the issues which are now at stake should have come home to the mind of India with a clearness and a force similar to that with which they appealed to the heart of the whole Empire. The influences which radiate from our Universities may well be included among the things that have made it possible for India to reveal her true mind to the nations of the world. In this conflict of warring ideals that is proceeding day by day to its final issue, our confidence that victory is sure and that a

better era is preparing for all the nations is simply our conviction that in God's government of this world the cause of righteousness and freedom is bound to triumph over an unrighteous ethic born of human arrogance, a doctrine of force that tramples under foot every right of the weak. That India has been moved to take her stand on the side of righteousness means more to India even than to the Empire, for it leads all who cherish high anticipations in regard to the future of this country to believe that all thoughtful and sincere Indian patriots, convinced that,

• By the soul

Alone the nations shall be great and free,
will recognise that their highest aspirations can only be realised through the moral and spiritual uplifting of the entire nation.

Turning now to view more nearly the condition and prospects of our University, may I be permitted as one whose connection with this University stretches far back into the past to indulge for a little in retrospect. Looking back upon these early days and calling to mind the University men of that period, of whom so few are now left to us, I should like to ask, what advances have we made during the past forty years?

We have advanced rapidly in respect of the number of our students and of our Colleges, the number of our degrees and of our graduates. In every Faculty we have elaborated new curricula. We have witnessed various measures of University reform and new departures, have been planned in order to enlarge the scope of our activities. Soon we shall see great additions to our external structures in two handsome piles of building in which we propose to locate our new offices and our classrooms for post-graduate work under University professors who are still to be appointed.

The Government of India has dowered us with unexpected grants and already these have been applied to the institution of lectureships and the re-organization of the University Library.

And yet we cannot hide from ourselves the fact, so disconcerting and distressing to us all, that owing to some fundamental and constantly operating cause, we are being defrauded of the splendid results that might have been expected from an organization which has been elaborated by the efforts of well-nigh sixty years. Has the present generation outstripped in general culture and in all those qualities associated with it, which make for the

elevation of a people, the men who long ago stood in this same place to receive their degrees as these young men have done to-day? We gratefully recognise that in faculties that are concerned with the scientific professions there has been a marked advance arising from progress in teaching and equipment in these faculties. In the Faculty of Arts, however, which covers the largest portion of the field of our activity, can we say that the products of to-day stand above those of the earlier time or as far above them as we might in reason have expected?

It is not easy to give a simple answer to this question. In those early days it was the few, the select spirits of the time, who sought admission to the University; to-day it is the ambition of almost every one who has enjoyed the benefits of an English education to enter the University. We have no right to expect therefore that we should have the same proportion of outstanding men. The Telange and Ranades and Mehtas of that time were towering personalities in a very limited group. The successors of these men are to-day a small group amid a great multitude. My own conviction is that we have still among our graduates men of the same high order. We send to the West graduates capable of winning the highest honours in the University of London and we still furnish to Cambridge a Senior Wrangler or his modern substitute, as has been seen again this year in the distinction won by our Government of India scholar. But such outstanding successes now represent a small proportion of the men of our University. If we are to institute a comparison it ought to be based not on the exceptional achievement of the few but on the general result of the system as a whole.

I am afraid we must confess that, judged by this test, the amount of progress that has been achieved falls far short of our reasonable expectation. It is the duty of every one, who is devoted to the interests of this University and desires to serve it, to endeavour to discover the cause of the slowness of our progress. The reason is not far to seek. It is not to be found in any specific defects in our curricula of study; nor is it due to any lack of ardent students, earnest in the pursuit of knowledge, ready to make every kind of sacrifice, of comfort, ease and even of health in order to achieve their purpose. Students more willing to be taught and guided, young men and young women more eager for success are not to be found in any of the Universities of the world. The reason of which we

are in search lies elsewhere; it is to be sought in the process through which these students are made to pass on their way to the goal which we have set before them. It is because we as a University have been too forgetful of the fact that our University system is dependent for its efficiency on the kind of education which precedes the entrance of the student into the University. We have an excellent, well-organized system of elementary education and a University with syllabuses and curricula which, if adequately carried out, would place our graduates in high academic rank; but unfortunately the intermediate stage, the High School preparation, is entirely and practically our University standards are being lowered to meet this inadequate preparation.

University reform in any other sense is not one of our crying needs. What the University needs is, *well-prepared students*, students so thoroughly equipped with a knowledge of the language that is to be the sole medium of their future studies, so well-grounded in the fundamental branches of a sound general education, that the courses prescribed by the University may become a reality and may prove to the men who enter on them a means of growing knowledge and expanding joy. The University requires such an improvement in the quality of the students who enter it, that the life of these students shall not be one of overwhelming strain, ending too often in disappointment and failure, and such that the professors in our Colleges shall find it possible to give them of their best and assist them in becoming intellectually strong and free. To me it has long been manifest that except in the case of a few specially gifted young men the standard of preparedness on which the University insists under the present system fails to secure this; with the result that a student's first year at College is spent in carrying on a course of study which could have been pursued under far more favourable conditions and with far better result in school. It is a year misplaced and the consequences of this misplacement dog the unfortunate student all through his University career. The simple remedy is to place it where it ought to be and to begin the College course where this first year College course or, what it really is, this closing year of the school, ends. I suppose there are few who have had any experience of College work who would not endorse the conviction, at which many of us arrived long ago, that the Previous Examination as it used to be held by the University marked the real beginning

of College study in any proper sense of the term and that this was the real Matriculation Examination in our University. Increasing experience has driven this conviction further home and to many of us it has become a settled conviction which leaves no room for even the shadow of a doubt that this is the point at which admission to the University should take place.

The acceptance of this position, no doubt, involves a considerable task of reconstruction in our Secondary Education. It is a task which must be resolutely and courageously faced, in which Government and the University must heartily co-operate, if this University is to fulfil worthily its high function. To re-organize University courses is a comparatively simple process; to make these real and fruitful by increasing the efficiency of the education that is preliminary to them is a task that requires the patient remodelling of many agencies. The former is perhaps a more imposing process; but it is a thing of emptiness unless the latter is also faithfully performed. The attempt to accomplish the former without having first attended to the latter (and this is a view which I have often pressed in the meetings of our Senate) is as ill-considered as that of the builder who lavishes skill and expenditure on the upper structure which greatly impresses the onlooker, but neglects the lower parts of his fabric which, though they may not appeal so powerfully to the passer-by, are regarded by all who know as the things of chiefest moment. Such mistakes have been made in the history of this University. They can still be corrected by again looking to our foundations. And this we must do if our life and the lives of our students are not to be spent "in shallows and in miseries."

If any should be disposed to doubt the urgency of this need, let him peruse the reports of our Examiners which are in the hands of many of us and have been recently commented upon in the public press. I shall not quote here the indictments contained in several of these reports submitted by European and Indian Examiners, the most severe being those offered by an Indian who is himself a graduate of this University. I would only say that they support every word of my contention. They shew that only in the case of a limited number of our students, principally, though not exclusively, those who go in for Honours, are the performances of the candidates of high merit, while great numbers give unmistakable evidence of carelessness and inaccuracy due to the imperfect education with which they approached their University studies.

There is one class of remark, which frequently recurs in these reports, which seems to invite a deeper consideration of the methods of instruction pursued in our schools. These reports complain of a want of originality in the answers of candidates and allude to the prevalence of what is described as "unintelligent cram." Personally I should feel disposed to condone this alleged want of originality, for originality is scarcely to be expected in the ordinary student at this comparatively early stage. If by "cram" is meant the memorizing of results at which we have arrived by processes thoroughly understood, then "cram" is something practised by all men and not confined to the candidates at University examinations. It is essential to all progress for we cannot be always retracing our steps from the beginning. The mathematician must carry in his memory numerous formulæ every one of which he ought, however, to be able to re-discover whenever it may be necessary. "Unintelligent cram" is, I take it, the loading of the memory with propositions which are not understood, the very terms of which may be unintelligible to the user.

If this kind of "cram" is so prevalent as these reports seem to indicate, there must be a reason for it which ought to be inquired into. The conclusion at which I have arrived is, that it is intimately connected with the fact that so much is taught and attempted to be learned at too early a stage in a foreign tongue. When any subject has to be studied through the medium of a language not yet understood the tendency to "unintelligent cram" is inevitable. The case of such a student is like that of the youth without mathematical understanding who is being initiated into the mysteries of Euclid. If he has no conception of the things contained in these propositions and cannot think them out for himself he can at least commit Euclid's words to memory and in his despair he falls back on a power which all his young life he has learned to trust. He takes upon himself the dreary task of committing all these strange things to memory. His faith in the great geometer is unbounded and he learns to repeat his mystic statements from memory, with the result that he learns nothing of geometry except to hate the very name of it. Is there not a danger that the same thing may happen in regard to many other subjects besides mathematics? Unless the first conceptions are really grasped and clearly understood all real progress becomes hard, becomes indeed impossible.

In view of this the Educational Department has wisely encouraged the use of the vernacular both in teaching and examining in some quite advanced classes; but to a large extent this permission is not taken advantage of and quite young boys have to learn certain subjects from the beginning in a language which they cannot thoroughly understand and which they cannot freely wield. Need we wonder that here again recourse is had to the well-trained memorizing faculty and that the habit thus formed runs through the subsequent stages of the student's career? My own impression is that English is too much in use as the medium of instruction, and perhaps too early, in all our schools. If it were more judiciously used as a medium it would perhaps be better studied and acquired as a language.

The views to which I have given expression are not intended to lend any countenance to those over-zealous vernacularists who are beginning to demand that in the University Matriculation Examination answers should be allowed to be written in the student's vernacular in all subjects except English. These enthusiasts have scarcely realised how much confusion they are proposing to introduce into the examinations of the University nor how seriously the carrying out of their proposals would imperil the future success of every student. In the University there is and can be only one medium, viz., the English language. Before he enters the University the student must be familiar with English as a medium of study and expression. His last year in the course of study which I have been advocating would be an "English" year and if he is supposed to be capable of answering questions on the English language in English he ought to have sufficient familiarity with the language to be able to answer in it questions on other subjects also. The very fact that he has learned them in the beginning in his own language and thus presumably understands them better should give him an advantage in answering questions on them in any language which he truly knows.

Had time permitted I should have spoken to you of the steps which are now being initiated to bring the Colleges into closer touch with the University and with each other, and of the extent to which this University, so often described as a mere examining body, is and has always been a teaching University. I should like to have referred to that most recent creation, the University of Mysore, so like the other

older Indian Universities and yet possessing certain interesting features peculiar to itself, including the institution of a higher standard of Matriculation similar to that which I have just been advocating for our own University. We welcome this addition to the growing family of Indian Universities and we hope to learn something of value from the experiences of a University that is free to shape its own future untrammelled by any past tradition.

In this connection I should have wished to urge the need for closer intercourse and more mutual intelligence between the various Universities of this country. But the limits which must be set to an address from this place have compelled me to confine myself to a discussion of the subject dealt with in the preceding discourse. I am profoundly impressed with the urgency of this matter, for upon its adjustment will depend the successful achievement of all those schemes of University development that are now before us.

I conclude with a brief word to the young men and young women whom we have just welcomed to a place of honour in this University. We congratulate them on their success and on the distinctions they have won. I cannot do better than repeat to them the counsel which you, Mr. Chancellor, addressed to their predecessors on a similar occasion last year. Let me also remind you, graduates of this University, that for all of you the real work of your education has only begun. We should indeed all of us have a poor account to render of ourselves, if all we have learned could be summed up in the little knowledge we acquired during the years spent in School and College. The education you have received has only put you in possession of the instruments by which you are to work out the greater problems that now await you. You are entering on a wider life at a time which requires in each of you the highest qualities of mind and character, if you are to play your part worthily in the life of your city and your country. Reverence for truth and righteousness, a firm trust in God and the courage which it inspires, an impartial judgment, a broad outlook, the capacity to subordinate personal to public interests, qualities which, we trust, have been nourished within you by the studies in literature, history and science with which you have been occupied, these are some of the possessions that you will find to be of greatest value as you go forth to your task in life. The value which you put upon them and the degree in which you use them will be

the true measure of your education, your only really valid title to the degrees which the University has now bestowed upon you.

Hoc opus, hoc studium, parvi properemus et ampli,
Si patriæ volumus, si nobis vivere cari.

—Reprinted from the Official copy.

GOVT. OF BOMBAY: REPORT ON THE SCHOOL FINAL EXAMINATION HELD IN MARCH 1916.

(Reprinted from the Bombay Gazette.)

The following is a brief summary of the reports submitted by the Superintendents and Examiners:—

(1) Compulsory Subjects.

English.—Mr. Nelson Fraser, Principal of the Secondary Training College, who set the papers and examined the candidates at the Bombay centre, is contributing articles to the June and July numbers of 'Indian Education' containing remarks on the manner in which the papers were answered. Similar articles were published by him last year in the same magazine, but he states that this year's papers show no evidence that teachers had ever read them. His remarks on this year's examination appear to me to be of considerable value and I suggest that the attention of all recognised schools should be called to them. Regarding the essays on 'The Plague' he says—'The one idea that every one seemed to have grasped is that the disease is somehow connected with dirt—that is all that can be said. Yet it is perfectly possible to make young men of 16 to 20 years understand more than this; the important thing, however, is that teachers must find out whether their pupils have understood them and can reproduce what they have said.' This fundamental principle of teaching seems to be quite unknown to almost all teachers who have had anything to do with the candidates here before us. The piece set for paraphrase was better done than the sentence last year inasmuch as there were a few candidates who understood its meaning, and at least one gave a good paraphrase of it. But nearly all were complete failures and very few even knew what a paraphrase is. The composition was in almost every case below criticism. 'There may have been', says Mr. Fraser, 'ten candidates who could write simple English correctly—not more'. Punctuation was exceedingly bad everywhere. Writing was fair in the case of about 25 candidates;

and bad to very bad in the case of 125. 'It is evident', says Mr. Fraser, 'that the great cause of the feeble work shown up—so far as it has any single cause—is the incessant hurry of our classrooms, the blindness of teachers to the actual work of their boys, and the absence of any supervision of what they do. If these evils are to be remedied,

- (1) work must be far slower,
- (2) teachers must find out whether the boys understand them or not,
- (3) they must exact accurate answers to their questions, written and oral.

The one and the only way is to insist on correct expression in every lesson where English is the medium, from the earliest days of the school course. As long as boys are allowed to use singular nouns and plural verbs and to commit any other sort of error every time they open their mouths in English it is idle to think that a formal composition hour will teach them to write English correctly.

The following remarks of Mr. Fraser will give a clear idea of the general quality of the knowledge of English possessed by the candidates—'If we consider things from the point of view of a University and ask how many of these candidates are fit to receive their further education in English the answer would be, taking a liberal view, perhaps ten out of one hundred and fifty-three. But asking how many should pass at a School Final I return the answer myself at 91 and that is the result I showed up. The number of failures is large enough to cause serious concern when one remembers how much misery and disappointment it stands for. The percentage in figures is 40. This is about the same as that of last year, though I must admit that I think the work on the whole was worse.' The examiner at the Poona centre reports that the work in composition showed lack of preparation and arrangement before writing. Quantity throughout was preferred to quality. At Ahmedabad the writing was said to be good, and the spelling bad. The question on direct and indirect speech was found to be a good test of the candidates' knowledge of English. The examiner regrets the omission from the paper of questions involving analysis and parsing. At Karachi the Inspector reports that there has been no improvement in writing or spelling outside the Karachi schools. The papers of the candidates from the St. Patrick's High School were 'models of neatness and accuracy.' Mr. Dudley, who ex-

amined at the Dharwar centre, has submitted a full and interesting report, of which I attach a copy to this report, as it will, I consider, be of value to the headmasters and teachers of schools.

(2) *Vernaculars.*

Marathi.—At Bombay the work of the candidates in grammar and analysis was poor. Several of them wrote a bad Modi hand and their answer books betrayed want of practice in writing Modi. At Poona a slight improvement was shown in Modi manuscript reading. Candidates did not seem to have much knowledge of modern poets, and were weak in analysing sentences. At Poona the examiner was not satisfied with the result and comments on the candidates' ignorance of Modi handwriting and reading. As however the use of Modi is forbidden in Government offices, it does not appear to be necessary to insist on it this examination; and I think that the candidates should have the option of using Balbodh throughout the paper if they so prefer.

Gujarati.—At Bombay mistakes in spelling were committed occasionally in poetry, paraphrase, and essay-writing, confusion being made in the use of linguals and dentals. The answers in grammar and analysis were not up to the mark. At Ahmedabad the work was not satisfactory. The subject had not received the attention it deserves. Grammar also appeared to have been neglected as usual.

Kanarese.—At Bombay grammar was somewhat poor. At Dharwar mistakes of orthography were observed in composition as usual. More care requires to be exercised in schools as regards vernacular composition.

Sindhi.—The examiner reports that the written work showed a slight improvement both in handwriting and in knowledge of the language.

Urdu.—At Poona none of the candidates rose above mediocrity. Though they could speak Urdu fairly well, they lacked the power to express themselves on paper. Some of the spelling mistakes were most glaring. At Ahmedabad the boys were found weak in composition and grammar. They were also deficient in spelling. At Dharwar the same defects as at Ahmedabad were noticed.

Hebrew.—At Bombay three candidates appeared, all of whom did very well in both the written and the oral test, except that in the oral examination they could not pronounce all letters distinctly and with the proper tonic accent.

Latin.—At Poona the work was far below the average even in a test which was very moderate. At Karachi all the candidates passed, and the work showed that they had been well grounded in the language.

(3) *Mathematics.*

At Bombay most of the candidates did well in Geometry, but not in Arithmetic and Algebra. Very few could solve correctly the questions on graphs, logarithms and approximation. At Poona the work was disappointing as compared with that of previous years. Long and roundabout methods were adhered to. A number of failures was due to carelessness. At Ahmedabad the questions on logarithms were not attempted by more than ten per cent. of the candidates. At Dharwar the results are reported to be poor owing to defective teaching. At Karachi in Arithmetic there was still weakness in decimals. More exercises in practical work and greater attention to riders are recommended in the case of Algebra and Geometry.

(4) *History and Geography.*

History.—The paper was somewhat difficult: full allowance was made for this fact in assessing the results. At Bombay and Ahmedabad the question on the influence of modern research on the previous estimates of Shivaji and Warren Hastings was improperly grasped by many of the candidates. At Poona, the work was on the whole fair. Handwriting and method call for greater attention. At Dharwar the work was found fair.

Geography.—At Bombay the questions on physical geography were not properly grasped. At Poona the work was poor. Candidates did not understand what a relief map is and were ignorant of the use of a barometer. At Ahmedabad the work showed that due attention was not paid to physical geography. Very few could say why New York and Madrid differ in climate. The study of relief maps seemed to be almost a sealed book. At Dharwar the work was poor and the answers betrayed a lack of method and accuracy. At Karachi Mr. Carter remarks that the work showed a marked improvement on that of the past two years. This the Educational Inspector attributes to a large degree to the useful suggestions and criticisms made by Mr. Carter and to a course of lectures that he delivered in Karachi.

OPTIONAL SUBJECTS.

(1) *Classical Languages.*

Sanskrit.—There was only one candidate at each of the Bombay and Karachi centres and the work

needs no remarks. At Poona the work was good, but the spelling mistakes in the English translation were atrocious. At Ahmedabad the chief defect noticed was that the candidates showed inability to translate English sentences into Sanskrit. At Dharwar the results on the whole were fair.

Persian.—The majority of the candidates were from the Karachi centre. At Ahmedabad the candidates were found weak in composition, grammar and spelling and the same defects were noticed in the case of the two candidates that appeared at the Dharwar centre.

Drawing.—There were in all 18 candidates for this subject all of whom passed. None of the candidates produced work of a very high order. Free-hand drawing was the least satisfactory of all the subjects. Nearly every candidate failed to draw the correct proportions of the plants that formed the subject of the large plates sent to be copied. The colour work and memory drawing were good.

Book-keeping and Commercial Correspondence.—Seven candidates appeared at the Bombay centre, of whom six passed. The answers in Book-keeping were specially good.

"7. It is not necessary for a candidate to take an optional subject, and only 188 or 13 per cent. did so. The percentage was higher than in 1914. Apparently it is considered that passing in an optional subject does not add to the value of the certificate.

"8. The number of candidates who availed themselves of the concession allowed to answer the History and Geography papers in the vernaculars was as follows:—Marathi 96, Gujarati 5, Sindhi 3, and Kanarese 23.

"9. In paragraph 9 of my report on the examination held in November 1914, I stated that complaints had been made by the examiners at all the centres except Karachi regarding the slovenliness of the candidates' handwriting and work generally. 'It appears', I remarked, 'that the ultimate cause of this slovenly work is to be found in the absence of systematic and intelligent teaching of handwriting in the schools especially in the higher standards, and the neglect of teachers to insist on neat, precise and careful work in the daily exercises of their pupils. The standard in this respect demanded by Managers of Anglo-Vernacular Schools appears to be far below that which it has been

found possible to exact in European, and even in the better English-teaching schools. In an examination of the character of the School-Final, which aims at certifying to the fitness of boys for the work of Government service, and business in general, it is essential to insist on a high standard of neatness and accuracy, and the best means to remove the general defect in this respect revealed by this year's examination will be carefully considered.'

"Regarding the above remarks Government issued the following orders:—'Government concur generally in the remarks made in paragraph 9 of the Director's report. Special importance must necessarily attach to neatness and good handwriting in an examination which is recognised by Government as qualifying for admission to the lower grades of the public service and which aims at certifying to the fitness of successful candidates for business in general. But apart from this, it has to be recognised that the toleration of slovenly and untidy work and bad and careless handwriting is calculated to exercise an altogether undesirable influence on the characters of the pupils and their general outlook on life. It is necessary, therefore, to warn headmasters of schools that a higher standard in these matters will be insisted on in future examinations and that deficiencies will be penalised to a greater extent than heretofore'. The warning issued by Government was communicated to all the schools concerned. The reports of the examiners in English and other subjects show that at the Bombay and Karachi centres there has been little or no improvement (except in the Karachi schools). Nothing is said on the subject by the Superintendent of the Poona centre. The examiner in English at Ahmedabad reports the writing to be good. At Dharwar Mr. Dudley reports a slight improvement. His remarks are interesting as showing, what indeed is the common experience of all examiners, that as a rule the bad writers are the worst candidates. Careful attention will continue to be paid to the defects in question.

ORDER.—Prior to the year 1915 the School-Final Examinations were held in the month of November every year. On the recommendation of the Director of Public Instruction, Government in their Resolution No. 2005, dated the 25th June 1914,

decided that these examinations should be held in March instead of in November as hitherto and that in the year 1915 a supplementary examination only should be held in the month of March. A supplementary examination was accordingly held in March 1915, for which 690 candidates were registered (vide Government Order No. 3041, dated the 15th October 1915.)

2. The present report deals with the School-Final Examination held in March 1916, in accordance with the orders referred to in paragraph 1. The number of candidates registered for the examination was 1,410 against 1,680 in 1914, but 13 candidates did not appear. The number actually examined was therefore 1,397, of whom 510 passed, giving a percentage of 37 against 47 for the examination of 1914 and 48 for that of 1913.

3. The examiners' reports show that everywhere the standard of English attained by the candidates for this examination continues to be poor. The suggestion made by the Director of Public Instruction in paragraph 6 of his report that the attention of the heads of all recognized schools should be invited to Mr. Fraser's remarks on the examination is approved. The Director should also be asked to bring to the notice of the headmasters of schools the remarks made by Mr. Dudley in his letter No. 7266, dated the 28th March 1916, especially those regarding handwriting.

4. Of the 78 schools which sent up six or more candidates, 30 failed to pass 33 per cent. of their candidates. The result of the enquiries which the Director of Public Instruction proposes to make in regard to these schools should be reported to Government.

5. The Hon'ble Mr. Sharp's report should be printed for distribution as proposed by him.

REPORT OF THE INSPECTOR OF EUROPEAN SCHOOLS ON THE ENGLISH WORK OF THE CANDIDATES IN THE S. F. EXAMN., BOMBAY.

In continuation of my No. 7107, dated March 23rd, I have the honour to report as follows on the English work of the candidates in the recent School-Final Examination:—

Handwriting.—A slight improvement on the 1914 examination, in which the writing was severely

criticised. The standard, however, is still low. Out of the 208 candidates, who appeared, 31 were noted as bad writers, and only 4 of these passed. This would seem to prove that weak and untidy writing indicates weak and ill-regulated brain capacity and even weakness of physique, which was very much in evidence. Conversely, out of 32 candidates marked as good writers, 23 showed very fair ability, and consequently passed.

The rest of the candidates wrote in a more or less legible hand, which was, however, either cramped or childish in character. It is customary to ascribe bad writing merely to carelessness; it is largely due to sheer weakness of the finger muscles or to inability to shake off the methods of pen-holding which are necessary for vernacular script but fatal to the writing of English. The only remedy is finger-drill (which ought to form part of any good system of physical drill) and attention to the principles of penmanship. Most teachers are probably unaware that such principles exist.

Spelling.—Very weak as usual. The weakness is due to a general lack of observation and of visual memory, the gift which enables us to remember the spelling of a name like "Przemysl" after seeing it once in print. It is merely a matter of practice. Weakness in spelling is also partly due to the attempt to visualise English words in vernacular script (which is also the source of most of the bad pronunciation amongst students and teachers alike). Ignorance of Latin is, of course, another great disability. But there is no reason why teachers should not try to teach the commoner Latin derivatives in groups and thus combine a spelling lesson with a composition lesson (see Chambers and Ker—"Words—Their Origin and Use." Blackie). The following common mis-spellings illustrate what is said above:—

Contiguous (for contagious) *equeire* (for equator) *Chinise* (for Chinese) *innaculate* and *enaculate* (for inoculate) *jerms* and *jurms* (for germs) *openion* *crueked* and *crucade* (for crooked) *decease* (for disease).

Method.—I have again to report a total inability to be brief and to keep to the point. Many candidates told me they had been unable to complete the questions. This was simply due to their poor

ing forth a half-memorised torrent of unrelated paragraphs on any question they happened to have crammed up a day or two before. One is led to the conclusion that quantity is deliberately encouraged in the schools, at the expense of quality.

Translation.—The first sentence of the Kanarese passage, the purport of which was that we must first settle the definition of "Education" before we can establish its desirability or otherwise, completely bewildered every candidate except one. The literal translation supplied to me certainly showed that it was a difficult sentence. Otherwise the piece was done quite well. The Marathi piece was too easy and there was no scope for any real display of power to translate vernacular into English idiom. The Kanheri caves were commonly described as "stone-works" or "engraven-works" and several candidates kept the Marathi word and called them "Lenies." One candidate said they were 73 ounces west of Greenwich. The Urdu piece was well done by the two candidates who took it. It appeared to be the most difficult of the three. I think that the presiding examiner should "moderate" the three translation pieces in order to equalise their difficulty as far as possible. Personally I do not see why the same piece should not appear in each vernacular.

Composition.—It requires a clever examiner to defeat the "gentle memorist" in this subject. I regret to say that all three subjects showed traces of industrious labour having been spent on them some time previous to the examination. Most candidates discoursed on plague, and got the facts right when they happened to remember the words of their original effort. Those that did not remember got very confused. They confused fleas with germs, and germs with worms and worms with mosquitoes, and finally opined that plague was either a contagious disease or else inhaled through the nostrils. Several said that the English brought plague into India. The essay on the crow produced several quite sensible efforts, but most of the candidates actually believed the old Hindu superstition that the crow has only one eye, or rather, as one candidate put it, "God has given him one marball in the eye which he uses by the two holes." Here again we have lack of practical observation,

The letter on "the most interesting book you have ever read" showed that the candidates had read quite little. The only original letter was on the teachings of Shri Vivekananda. Several wrote on last years' text-book and three wrote a general essay on morals, geography and history, respectively. Evidently there is scope for the school libraries. Teachers might impress on pupils the fact that no Englishman would use the word "request" in a private letter. He would use the word "ask." This is a very common error.

Paraphrase.—Almost as bad as in 1914. In Paper I, they were asked to paraphrase the sentence:—"In this war we rely no less on the extent of our resources than on the justice of our cause." Only 6 got it right. Many candidates wrote a short essay on the war. Many took "no less" to mean "more," and several had no idea of what "resources" meant. One candidate thought it meant "tricks" and another "happiness." Several who got it nearly right spoilt the effect by giving two wrong alternative versions. The obvious moral is that teachers must insist on the pupils reducing the abstract to the concrete and the impersonal to the personal wherever possible. On the other hand this must not become a mere rule of thumb, as it appears to have done in the paraphrase of two lines from Gray's Elegy in Paper II, where, without a single exception, "Honour's voice" was paraphrased as "laudatory speeches" or "speeches by honourable men"—two totally impossible meanings. It almost looks as if some text-book is responsible for this error. No candidate brought out the contrast between "provoke" and "soothe".

Text-Books.—Well prepared as usual. In fact too well prepared. One candidate said he had read one book 15 times. The use of whole paragraphs reproduced from memory made it difficult to assess the actual grasp of English shown by a given student. But in most papers the usual errors were plentiful, as detailed in my report for 1914, such as (a) actives for passives, and *vice versa*, (b) wrong use or omission of definite article, (c) wrong sequence of tenses. The "explanations" were much too long in most cases. Many candidates described the Chinese as "sweet speakers." This is hardly a current English expression.

Oral.—If the examiner had to certify that all the candidates represented as having passed were capable of carrying on a sustained conversation in English he would be unable to do so. The only ones who showed any facility were those who had had opportunities of conversing with Englishmen, or who had appeared before. In cases where a candidate appeared to be very stupid or nervous he was given a passage to read. The reading was very bad as a rule, and full of wrong accentuation and wrong pronunciation. The passes in this section can only be regarded as indicating that the majority of the candidates understood the questions asked and were moderately successful in giving answers to them. There is still much uncertainty as to the correct form of salutation. I think that a circular on the subject might be issued to all Government and Aided Schools.

The most striking points noticed in the course of the oral examination are as follows:—(a) the great age of some of the candidates. One was 26, and many were about 22. In a "School-Final Examination" this does not appear to be right; (b) the extreme poverty of most students, and the number of them who were supported by brothers or uncles; (c) the generally poor physique. Quite a number of students admitted to chronic ill-health; and the number of narrow chests, round shoulders, and weak-looking hands was pathetic.

Bad eyesight did not appear to be at all prevalent; at any rate scarcely any students wore glasses. Very few students appeared able to stand upright with head erect and feet firmly planted on the ground. The average height appeared unusual, but it was not accompanied by corresponding strength.

Conclusion.—The best percentage results appeared to come from Dharwar High School; but the best individual results as regards general ability of expression, written and oral, and also neatness, came from the Sardars' High School; the worst results all round were from the Private English High School at Kolhapur and the Baynon-Smith High School at Belgaum. The whole result cannot be considered good. There was no first class work at all, and only about 20 candidates might possibly have gained low second class marks.

GOVERNMENT OF BOMBAY— PRIMARY EDUCATION: ABOLITION OF RURAL STANDARDS.

In connection with a programme for the extension of primary education in the rural areas of this Presidency which was then under consideration, the Government of Sir George Clarke (now Lord Sydenham) raised in October 1909 the question whether the opening of more new primary schools of the type of the then existing local board schools was really the most economic way of reducing the illiteracy prevailing in rural areas, and whether a moderate proficiency in reading, writing and arithmetic—which appeared to them to be all that children in rural areas could be expected to attain—could not be secured in a less expensive way. The report of the Director of Public Instruction, who was addressed on the subject, confirmed the view which Government were inclined to take. It showed that the pupils attending primary schools in rural areas were for the most part the sons of agriculturists, that as a rule they did not remain at school for more than four years, and that all that they required was a thorough grounding in reading, writing and arithmetic to which might be added some general knowledge of the geography of their district. On the other hand, the trading classes required a more extended course of education and the then existing vernacular course was fairly adapted to their wants. Government therefore came to the conclusion that it was desirable that all primary schools in rural areas should be divided into two classes, one suited to the smaller villages where the majority of the population was of the agriculturist class and the other which would be maintained only in the larger villages where there

* Published in Press Note No. 2183, dated the 8th July 1911.

† Published in Press Note No. 1406, dated the 5th June 1912.

5th June 1912):—

was a considerable number of children requiring the longer course. Orders were accordingly issued (vide Government Resolutions Nos. 2049,* dated the 19th June 1911, and 1402,† dated the

(a) that primary schools maintained by the local boards should be sub-divided into two classes, viz., (1) "rural" schools teaching a course of four years only, comprising an infant class and three standards and (2) "full primary" schools, teaching regularly at least up to the 5th standard of an ordinary primary course, comprising an infant class and seven standards;

(b) that, as the then existing "rural" course was not suited to the agriculturists, as it extended over too many years, was too literary and attempted to teach too much, a new set of four standards complete in itself and concerned mainly with imparting to the pupils a thorough grounding in the "three R's," with a little of the geography of the district, should be drawn up for "rural" schools entirely in the interests of the children of agriculturists;

(c) that "full primary" schools should be located only in the larger villages, "rural" schools being maintained in the smaller villages;

(d) that the then existing schools which had been teaching up to the 4th standard only or in which the 5th and 6th standards had been only spasmodically and scantily attended should in every case be reduced to the status of "rural" schools;

(e) that in order that clever boys of the agricultural classes in the smaller villages might not be prevented by pecuniary difficulties from completing the full vernacular course, a fairly wide system of scholarships should be instituted from "rural" to "full primary" schools;

(f) that in order that boys starting in the "rural" school might be able to pass to the "full primary" school, the two courses should be correlated as far as possible;

(g) that, in view of the above orders as well as on general grounds, the whole of the then existing ordinary primary course should be revised, more especially in regard to the teaching of history and geography.

In accordance with the above orders, new sets of standards for "rural" schools and revised sets of standards for "full primary" schools were sanctioned in the notifications* specified on the margin. It was also directed that the above orders should apply in the first instance to the Presidency proper only, and that the Director of

* Government notification No. 1408, dated the 5th June 1912.

Government notification No. 814, dated the 5th December 1912.

Government notification No. 627, dated the 8th March 1913.

Government notification No. 2314, dated the 6th August 1913.

Government notification No. 2599, dated the 8th September 1913.

Public Instruction should report, after consulting the Commissioner, how far they were applicable to Sind. Ultimately, it was decided in June 1915 that the system should not be introduced in Sind as the "full primary" and "rural" courses were still on their trial in the Presidency proper, and might not improbably require some revision.

The above orders have been the subject of criticism from time to time in the Legislative Council, in the public press, and elsewhere, the system they introduced has been difficult to work, and it has not been found possible to adjust the curriculum for "rural" schools satisfactorily. Government have therefore reconsidered the whole question and have arrived at the conclusion that the existing arrangements ought to be changed.

2. It is clear that the restriction of the "rural" schools to a course comprising an infant and the first three standards only has caused hardship to parents in rural areas who desire to send their children ultimately to an Anglo-Vernacular school. Rule 27 of the Grant-in-Aid Code lays down that except in special cases no boy speaking a recognized vernacular of the Presidency shall be admitted to schools in which English is taught unless he has passed the 4th vernacular standard. This rule, which is based on the principle that a boy should have a fair knowledge of his own vernacular before he takes up the study of a foreign language, compels parents in rural areas to send their children to a "full primary" school to learn

the 4th vernacular standard, before they can be admitted to an Anglo-Vernacular school. This difficulty was foreseen at the time the present system was introduced, but it was thought that a parent who intended to send his son ultimately to a remote Anglo-Vernacular school would probably be able to incur the additional expense of sending him away from home one year earlier to enable him to pass through the 4th standard, and that the case of boys in indigent circumstances could be met by the establishment of scholarships in "full primary" schools for the completion of that standard. The grant of scholarships, however, does not, it appears, meet the real difficulty, viz., the reluctance of parents to send boys to schools away from their own villages at so early an age, a reluctance which is naturally increased by the fact that there are no hostels attached to "full primary" schools.

3. With regard to the revised "rural" standards themselves, Government in paragraph 7 of Government Resolution, No. 2049,† dated the 19th June 1911, expressed the opinion that it would probably be found convenient to make them correspond exactly with the infant and first three standards of the "full primary" schools, with the omission of such subjects as kindergarten occupations, object lessons, etc. The Committee appointed to frame the revised course for Marathi "rural" schools was, however, of opinion that this could not be done, and separate "rural" standards were accordingly issued first in Marathi and afterwards in the other vernaculars of the Presidency. These standards have been commented upon diversely in the public press, and some responsible officers of the Educational Department have considered them too difficult. Others have been of opinion that the alleged difficulties were largely due to laziness and inefficiency on the part of the masters, and that the standards themselves were satisfactory.

† Government in paragraph 5 of Government

Resolution No. 3251, dated the 9th November 1915, reviewing the Director of Public Instruction's annual report for the year 1914-15, accepted the opinion of inspecting officers that the apprehension that the rural school course was overweighted was not justified. They have, however, since then, made further and fuller enquiries and are satisfied that the course laid down for "rural" schools is really too difficult for the boys to complete within the prescribed time, and that what was intended to be a four years' course takes often five and sometimes six years to finish.

4. The Governor in Council is therefore pleased to direct—

(1) that in future there should be no hard and fast sub-division of local board primary schools for boys into "full primary" and "rural" as at present;

(2) that there shall be a common curriculum for all local board schools, whether they be situated in the larger or in the smaller villages, and that this curriculum shall be the curriculum sanctioned for the schools known hitherto as "full primary";

(3) that in practice in the schools in smaller villages, kindergarten occupations, object lessons, drawing, etc., included in the curriculum above mentioned need not be taught if a duly qualified trained teacher is not available;

(4) that in future primary schools shall be of two grades, the first grade teaching at least up to the fifth standard and the second grade teaching not more than the first four standards;

(5) that the schools in the smaller villages shall generally be of the second grade, but if local conditions so demand a higher standard may be added, thus converting them into the lowest type of the first grade;

(6) that for the purposes of the statistical tables prescribed by the Government of India appended

to the annual report of the Director of Public Instruction the infant and the first four standards shall be regarded as the "lower primary"

Government endorsement No. 2491, dated the 14th August 1911.

Government memorandum No. 3058, dated the 4th November 1911.

stage of instruction and the remaining three standards, "upper primary" stage; this will be in modification of the orders specified in the margin.

5. A notification regarding the abolition of the separate sets of standards laid down for the "rural" schools should be published in the *Bombay Government Gazette*. As changes in the curriculum cannot conveniently be introduced except at the beginning of the "school year," the notification should provide that in each individual case the abolition of the rural standards should come into effect after the next annual inspection.

Reviews and Notices.

THE EDUCATION OF KARL WITTE, EDITED WITH AN INTRODUCTION, BY H. A. BRUCE. TRANSLATED FROM THE GERMAN, BY LEO WIENER. (HARRAP.) 4s. 6d. net.

This is an English translation of an original German book, written a hundred years ago, and yet of interest at the present day, as throwing side lights on the various aspects of the problem of education.

It is generally admitted that there is a plastic period during which education does its work best. But what are the limits of this plastic period? At what age should the education of a child begin? To this question the author gives a decided answer. He has no faith in allowing the mind to 'lie fallow.' Education should begin with the very dawn of intelligence, and not be postponed to what is called the 'school age.' The whole book is an exposition of the author's conclusions arrived at as the result of the long experience gained in the course of the education given by him to his own son. Under the father's careful training, Karl Witte, the boy, had, in his ninth year, acquired mastery over half a dozen languages, was a brilliant mathematical scholar, was well versed in Physics, Chemistry, Zoology and Botany, had become a Doctor of Philosophy before he was fourteen, and at sixteen—just when our lads emerge from the High Schools with their S. S. L. Certificates—was actually Professor in the University of Berlin—all this, be it remembered, without detriment to the health, vigour, vivacity or merriment characteristic of children in general, coupled with a complete absence of arrogance or vanity. It is a tale

of what can be accomplished by system, interest, and the zealous care of a capable parent—a tale truly wonderful, when we bear in mind, as the author tells us, that the boy was by no means endowed with extraordinary aptitudes, and that the father was not possessed of any special qualifications or exceptional facilities for the instruction of his son. The father's aim, when he began, was not particularly ambitious either, but the success he was actually able to achieve was so far beyond expectations that he lays it down as his firm conviction that every normally endowed child, provided he is excellently educated, may become a superior man. There is a great deal of truth and force in some of the remarks the author makes in Chapter V, where this view is maintained, and all aspects of the question are considered, and possible objections met. The author's fundamental principles, and the practical methods suggested for purposes of physical, intellectual and moral training, are well worth attention in the light of the present day principles and practice. In the stress he lays on the pupil's self activity, in the place he assigns to Grammar in the study of languages, in the importance he attaches to the pupil's personal contact with, and first-hand knowledge of, things as a preparation for scientific study he must even be said to have anticipated a great deal of what we are familiar with to-day. The first impression, therefore, that gains upon us on a perusal of the book is that there is nothing in the procedure recommended that an ordinary parent may not successfully adopt, with any average boy. Second thoughts, however, incline one to hold that, after all, the parent's honest belief to the contrary notwithstanding, Karl Witte must have been one of the world's 'prodigies'—an opinion, which the Editor's reference to admittedly precocious intellects like that of John Stuart Mill goes in a way to confirm. Nor can we have faith in the efficacy of a method of private tuition which however successful in one single instance, denies to children the joys and delights of companionship with other children, and which absolutely ignores the patent benefits of a system of public school education. It is one side of the case.

THE ESSENTIALS OF TEACHING, BY T. J. BURNETT, M. A. (LONGMANS) 3s. 6d. net.

Students in Training Colleges are sure to find in this publication a sort of *vade mecum* of the principles and methods of teaching. The topics it deals with cover a fairly wide range, from the

philosophy of education down to the art of keeping order in class. There is quite a good sense of proportion evident throughout, just so much reference being made to the psychological and logical data as is required to form the necessary groundwork, without which it will be impossible to appreciate the significance of the rules suggested. This is what is wanted,—the teacher has to be imbued with broad principles which he should assimilate and bring to bear upon the living problems he has daily to face in the class-room. The hints given in the book have been suggested in the course of the author's personal experience, and are definite and clear, especially those on class-room management, and the actual conduct of a lesson.

The book is of value as affording a knowledge of the rules and methods that have to be employed together with the principles that underlie and justify them; and the author has done well to have made his lectures available for a wider circle of readers than the amateurs for whom they were originally intended.

ANNOTATIONS ON THE POETICAL SELECTIONS, BY AN EXPERIENCED ENGLISH TEACHER. (C. COOMARASAMI NAIDU & SONS.)

This is a well-written volume of Notes on the Poetical Selections prescribed for the S. S. L. C. and Matriculation Examinations of 1917, and the author is to be congratulated on having brought out this useful book. The annotations are all done in simple language and will appeal to the kind of students, for whom they are intended. The author has had the discretion not to give a running paraphrase of the entire piece, which is but dubious service to the students. But all difficult lines are paraphrased and the way in which this is done, will conduce to the better understanding of the poems in question. We are sure that the book will enable students to enter into the spirit of the poems and to have an acquaintance with the literature of the period. We have no hesitation in recommending it to every student of the class for whom it is meant.

TEST QUESTIONS IN JUNIOR ALGEBRA, EDITED BY F. ROSENBERG. (UNIVERSITY TUTORIAL PRESS, 1916). 1s. 3d.

This book is divided into two Parts. In the first part, the exercises are grouped according to subjects, and the second part consists of Miscel-

laneous exercises arranged in short graduated test papers. The exercises cover the course in Algebra included in Elementary Mathematics prescribed for the School-Final Examination of Madras. The book will serve very well as a supplement to the ordinary text-book.

PUBLICATIONS RECEIVED.

Sacred Tales of India, by Dwijendranath Neogi, B.A. London: Macmillan. 2s. net.

The Panjab, North-West Frontier Provinces and Kashmir, by Sir James Donie, M.A., K.C.S.I. Cambridge University Press. 6s. net.

The Granta Shakespeare: Much Ado About Nothing, edited by J. H. Lobban. Cambridge University Press. 1s. net.

Practical Mathematics for Technical Students, Part II, by T. S. Usherwood, B.Sc., Wn. Ex., A. M. I. Mech. E., and O. J. A. Trimble, B.A. London: Macmillan. 7s. 6d.

How to Summarise, Expand or Recast, by J. O. Nesfield, M.A. London: Macmillan. 2s.

Books from the P. T. I. Book Depot, Bangalore.

The Story of the Indian Mutiny, by Henry Gilbert, London: Harrap. 5s. net.

A Graphic History of Modern Europe, by Charles Morris and Lawrence H. Dawson. London: Harrap. 5s. net.

My Book of Animals, by Faith Ashford, B.Sc. London: Harrap. 4d.

Warwick, the Kingmaker, by Rene Francis, B.A. London: Harrap. 1s. 3d.

Warrior Saints, by Estelle Blyth. London: Harrap. 8d.

Chatterton and His Poetry, by John H. Ingram. London: Harrap. 1s. net.

Indian Educational Notes.

Ramanujam Chetti High School Literary Association, Purasawakkam.—Professor Krishnaswami Aiyangar delivered the inaugural address to the Ramanujam Chetti High School Literary Association, Purasawakkam, on the important educational subject "Examination in a Scheme of Education," the Hon'ble Mr. Justice Coutts-Trotter presiding. The lecturer began by pointing out that before proceeding to examine what exactly is the function of examination in a scheme of education, it would certainly be useful to enquire what exactly we understand by the terms education and examination. The Socratic method of defining the subjects always conduces to clearness of understanding and avoids the clouding of issues and confusion in discussion.

He then stated that according to Plato the purpose education was to develop in the body and in the soul all the beauty and all the perfection they are capable of. This was so far good from the point of view of the individual, and could apply to cases in which, like the Rishis of old, a teacher that lived in a hermitage took one disciple or at the most three or four at a time. The problem now-a-days is not so much the perfection of the individual but the education of the mass of people in a society. In regard to the mass then, 'education is the effort made by the community to impose its culture upon the growing generation.' In trying to impose its own culture upon the rising generation, those that are responsible for educating the mass set before themselves some ideals as to what the rising generation is to become, and strive by various schemes to attain to their ideal. So then it comes to this that education has for its guiding principle not the perfection of the individual child's faculties, such as they are in their native form, but rather the shaping of those faculties to attain the ideal which its educators have set before themselves. In other words all schemes of national education aim at waking the rising generation what they wish them to be as the Germans have exemplified it in recent times, their ideal apparently having been to make of the German youth the most efficient man-destroying machine possible.

He then pointed out that two conflicting principles stand out clear from this brief discussion, namely social service and individual success. Should education be shaped to advance the one or the other; it should not do either but should do both together by developing the individual faculties to the perfection attainable, consistently with the development of the society as a whole

on lines of progress. It is in this harmonious development of the individual and society together that social welfare consists. In other words any scheme of education in modern times requires for its practical aim the development of the individual aptitudes and capacities in such a way that he or she becomes a good and useful member of the society in which his or her life is cast.

That being the practical aim of all education it is clear that schemes of education have to be drawn up with care, and carried out with the utmost loyalty to this fundamental aim of all education. Subjects are selected and programmes are made chiefly with this object in view; at least it ought to be so, if it occasionally proves not to be so. It becomes useless then to put the question what is the use of this subject to me when I become a doctor or lawyer. Each subject has its use when it serves to develop a particular faculty or serves to give a particular mental discipline. Each subject has to be studied for this particular value and not for the value in the shape of so many marks in a public examination.

He then proceeded to point out what was understood by an examination. An examination is not necessarily associated with pen and paper and a separate hall. An examination always is a part of teaching. It is a perpetual investigation by the teacher to learn how far his teaching has been effective, whether he has successfully led his pupil past all the hedges and ditches that obstruct his path. It is not an exercise of ingenuity to discover what the student does not know as is too often the case with some examinations. This is not, however what is constantly in the mind of the student. He has in mind the few tests that are made at stated periods for various purposes, most of them more often administrative rather than educational. It is the domination of education by these examinations that was considered the peculiar drawback of the old system of education, culminating, for the secondary stage, in the late Matriculation examination. It is with the object of reducing the examination to its normal subordinate position of a mere test of efficiency of the teaching that obtained, that the Secondary School Leaving Certificate system was introduced recently. It is of the essence of this system that a record is kept of the student's progress through all the years of his course, the final examination coming in as a modifying influence, chiefly with a view to estimating comparative teaching efficiency. Examination by itself has a useful purpose to serve, but a large abuse of it is always possible, and this is an attempt to avoid the abuse. One way in

which those that undergo education can help to avoid this acknowledged evil is not by neglecting the subjects which do not help materially to add to their marks in the final examination. He wound up the lecture by quoting Dr. Miller's advice not to give the reins of the education-horse to the examination rider, but to put them into the hands of the other rider, education. If education be taken care of, the attainment of success in examinations will require no special effort on the part of the student.

In the course of his appreciative remarks upon the lecture, the Chairman pointed out that educationists are apt to be impatient of examinations. His own experience was that the evil lay in the examinations being, as often as not, badly conducted. Examination of students is an art in itself and required special faculties and sympathy that few examiners possessed in the requisite measure. It is generally taken for granted that every one that had knowledge of a subject was therefore fit to examine. One may have knowledge of a subject to his finger tips, and may still turn out to be a very bad examiner. There are besides certain subjects which lead necessarily to cram which the manner of conducting examinations directly and actively stimulate. He instanced the two subjects, law and history. He saw no reason why examinations should not be conducted in either subject by providing the facts and dates in the one case, and the texts of acts and codes in the other. If these contributory causes of the evil be removed, examinations will not appear as bad as they do at present.

University of Madras.—The Syndicate has resolved to recommend to the Senate for adoption at its meeting in October next certain Transitory Regulations so as to provide that candidates, who appeared for the last and previous old B.A. Degree Examinations but have passed only in one or two Divisions thereof, may be permitted to appear for the Part or Parts of the B.A. Degree Examination under the New Regulations which correspond to the remaining Division or Divisions of the Old B.A. Examination in which they have yet to pass so that they may be enabled to qualify for the Degree.

If the Senate accepts the Syndicate's recommendation and the Government sanctions the proposed Transitory Regulations, a notification on the subject will be duly published for the information of the public.

The following Circular is sent by the Madras Mahajana Sabha to the Principals of First and Second-grade Colleges:—

You are aware that the abnormal failures in English in the last Intermediate Examination are universally deplored. Few are agreed as to the reasons for the failures. A public body like the Madras Mahajana Sabha is endeavouring to ascertain the root causes to enable it to suggest means for the prevention of future failures.

In these circumstances I am directed by the Committee of the Sabha to obtain information on the following particulars:—

- (1) What are the causes of the heavy failures in English?
- (2) Why are the failures in English alone increasing?
- (3) What remedies would you suggest to prevent future failures?
- (4) Is the course of study in English extensive?
- (5) Are you in favour of compartmental system examination with English, Vernacular and Optional groups?
- (6) Could the examinations be held twice a year with the same text books.
- (7) What modification would you recommend in connection with the regulations of the University with reference to the Board of Studies and the Board of Examiners with special reference to increasing the representation of mofussil Colleges and of persons not in Educational service but interested in education.

Secretary, E. S. Committee.

The Educational Review.

We invite attention to the summary of a lecture delivered by Professor Krishna-swami Aiyangar on the function of examination in a scheme of education. From the summary, it seems clear that the Professor confined himself to secondary education primarily, probably because of his audience. He drew attention to the dominant part that the final public examination plays yet in the Secondary School Leaving Certificate Scheme to the detriment of useful educational subjects such as those of the now notorious B. Group of subjects. One can read between the lines, though the Professor exhorted the pupils to do all that lies in their power to avoid the baneful results of this dominance, that he is far from satisfied that all is well with the scheme, and the way that it is worked; particularly the part that the final examination marks are made to play in matriculating candidates at the University. From all that one sees of the Syndicate's instructions, this final examination seems the only part of the course that counts. Having regard to this view of those that administer the scheme from above, the advice that the Professor gave the students, though in itself quite sound, is a counsel of perfection. If the scheme is to work up to success there is needed very much more sympathetic co-operation between the Syndicate that dominates the school courses whatever they be and the departmental hierarchy that control and direct the work on the one side, and the

schools and schoolmasters that have to do all the spade work, unhonoured and unwept.

The honourable chairman, Mr. Justice Coutts-Trotter, did not grasp clearly the limitations that the lecturer placed upon himself. His remarks in regard to examinations though expressed with the freshness and vigour characteristic of him seemed to miss the point altogether. All the same his remarks are not without direct application to examinations as they are conducted in this country, whether it be University examinations or examinations below the grade of those of the University. If these ideas had influence with those that were responsible for the Intermediate examination the failures would not have been any thing so appalling as those of the last year.

The last Senate meeting which promised much, from the earnestness with which the Intermediate failure question was taken up, had fizzled out in a rather disgraceful fashion, having regard to the important issues it involved. The University Syndicate, which at last woke up to a sense of its own responsibility issued a note upon the Intermediate failures which, in spite of much show of argument, fails to satisfy any body that has paid attention to the problem. It has reduced itself to a question of a division on prestige without regard to the vital character of the interests involved. Nor was the handling of the question by the Vice-Chancellor such as to infuse

confidence in the decision. It would be quite the fact if one said that the question was clumsily evaded.

It is not to be understood that we hold any brief for the Hon'ble Mr. Justice Seshagiri Aiyar's motion. Far from this, we would have applauded the Hon'ble Judge's enthusiasm if he had brought in his motion in a way less subversive of the principle of examination, with the chance of more substantial justice to the deserving students. But the way that the whole question had been treated shews a flippancy and callousness in regard to questions of first rate importance that takes our breath away. The issues are simple. As many as 4717 candidates were admitted to the examination and 1241 are declared to have secured qualifying marks for a pass, a percentage of 26.3. The failures are admittedly high. The matter required an honest investigation. The report issued by the Syndicate shews anything but an honest effort to discover the causes and remove the evil. It is from the very beginning to the very end a vindication of the examiners, particularly those on the English Board. If the Board of Examiners could achieve only this result they deserve the criticism of Mr. Justice Coutts-Trotter referred in a previous paragraph of this Editorial. As a correspondent had exhibited in the columns of the 'Hindu,' the failures are extraordinarily high in English and not at all high, in comparison, in any one of the many groups of optional subjects. To put the matter in the concrete, there has

been a total failure of 3750, excluding those that did not sit for the examination for one reason or another. Of this large total as many as 300 escaped a failure in English—a marvellous result for which the examiners may not be alone responsible altogether. It is almost as clear that the candidates cannot be held responsible. Nor can it be that the teaching staff are alone responsible. These may all together be held responsible for the joint result each body contributing its own quota. Very unfortunately this blissfully simple explanation hardly touches the question. The failures have been as bad in centres where the qualifications of the staff can hardly be called into question. The examination boards have been composed of the same worn veterans that have hitherto composed them. The intelligence of the candidates cannot have gone down as a very large part of those that failed in English have done well enough in their subjects, which naturally call for more exercise of intelligence than the mastering of the vagaries of the English idiom.

One explanation comes in handy and that had been laid hold of by the Syndicate—the admissions have been lax as the number in the College classes have sprung up enormously during the last quinquennium. In 1909-10 there were only 2610 candidates for the F. A., while in 1916, there were as many as 4717. The number of students in the High School classes shew no great increase. Eureka! admissions have been lax, and candidates that are not fit for collegiate

education have got into the Colleges. Those that are responsible for the drafting of the Syndicate report have but short memories. No one said at the time nor does any one say so now, that the F. A. Examination was all that was desirable. The Matriculation passes were never considered adequate during the last decade of its existence. The abolition of the Matriculation was intended to bring the millennium on earth, and the Syndicate is staggered at the increase of numbers. To us it seems that the actual increase discovered is quite normal. If we started with 2500 and passed the percentages of about 41, 43, 33, 39, 27, 26, each of the succeeding six years we would arrive at a larger number appearing for the examination actually, taking it for granted that there has been no increase in the number of new admissions at all. The Syndicate have indeed discovered a mare's nest!

The real test of unfitness to prosecute one's studies for a University course would be incapacity to benefit by the teaching in the subjects chosen—English being merely the medium of instruction. Of five subjects that each candidate is expected to bring up for the examination those that fail in four or all may be considered quite unfit. As tested by the last examination there were only 616 such candidates. It is just possible that in the case of these candidates there has been some laxity in admissions. This number hardly constitutes an eighth of

the whole, and cannot possibly explain the appalling failures in English.

It thus stands out clear that the abnormal failures in English is due not to the teaching nor to the want of capacity in the average student, but solely to the character of the examination—not to the examiners necessarily or in all cases. The report of the English poetry examiner indicates the cause in his report: 'The poor performance of these candidates is to be attributed in my opinion, quite as much to unintelligent study of the prescribed texts as to defective knowledge of the English language.' This remark is illustrated by giving some of the questions and even specimens of answers. The intelligent study that is expected is not quite beyond the powers of the Intermediate candidate, nor is the defective knowledge of the language altogether irremediable in his particular case. Both these defects are eminently due to want of time for the necessarily slow assimilation in either case, having regard to the fact that the Indian student is a foreigner to the tongue and his teachers and professors are by no means experts in understanding his difficulties—never being able, in the great majority of cases, to understand his mental outlook. The actual difficulty therefore lies in this: that the new regulations of the University are framed with a view to educating the University student in the subject he has chosen, and not to make an expert of him in English language

and literature. In the framing of the syllabuses, however, English comes in for a far larger share of his energy and exertion than this principle involves; and he finds himself in the end he is neither as good as the old F. A. generally, nor better than he in the special subject of his choice which he is obviously intended to be.

The remedy lies in this then. The English course should be so modified as to lighten it by making the study of English only a means to an end—being the medium of instruction and examination and no more; and the examination conducted with that sympathy with the student, which Justice Coutts-Trotter demanded in the examiner. This can be done by modernising the course in English and reducing it to about one half its present bulk, for the pass course. Another change which will do a great deal to remedy the hardship would be to introduce the principle of giving the candidate credit for his performance by excusing him from undergoing another examination in a subject in which he has already secured the requisite minimum. We hope that when the Committee appointed in this behalf presents its report the Senate will see its way to giving the question the anxious consideration that it deserves, and find the remedy for the deplorable state of affairs to which University education has been brought in the name of efficiency.

While on this question we would invite attention to another point. It was Professor Slater of the University that offered to come to the rescue of that pitiable creature—the Madras student—by pointing out that the genius of Tamil is so different from that of English that the Madras student finds it difficult to master the foreign language. Whatever may be the experience of the learned professor or the want of it, this position of his would have called for no remark. He went the unhappy length of drawing an advantageous comparison in favour of the Bengali student. We have much respect for the enterprise of our friend the Bengali student; but our experience of Bengali English would hardly justify this hopeful comparison by the learned professor who may, with advantage, learn a little more about these matters before rushing into print. The whole of educational experience in this particular is in favour of the Madrassi student whether his mother-tongue be Tamil or any one of the other Dravidian languages. Nay more qualified people with vast experience would give the palm to the Tamil in this particular.

The difficulty that we referred to above is far different from this. It is a difficulty that becomes apparent only when English is considered as part of the University course. The difficulties that a foreigner experiences in respect of the peculiar genius of a language may well stand over for a later stage or a

more specialized course. This course, we have not the slightest hesitation in saying, will commend itself to all reasonable votaries of efficiency.

It is a hopeful sign that latterly the meetings of the Senate shew more lively interest among the members of that august body; and in consequence that public interest in their discussions also is growing. We believe the time has arrived for making some arrangement for seating those that may wish to attend these meetings as visitors. While admission to these meetings may be by tickets, as in the case of Legislative Council meetings, satisfactory seating accommodation seems quite a desideratum.

One notices in these meetings a somewhat undesirable feature. The discussions in some cases shew a tendency to personal irritation and the consequent breach of decorum in discussion. There were, at least, one or two pointed examples of this feature in the last meeting. We hope that, in a body of learned men, such as the University Senate is, this is much more unseemly than in other assemblies. What is worse, this personal feeling shews itself in a conscious or unconscious tendency to defeat measures good in themselves. We hope this will not be the fate of some of the resolutions which were adopted after angry discussion. We are entitled to expect that there will be no want of effort to carry

out with the utmost loyalty, the resolutions adopted by the Senate. We would bespeak this spirit in regard to one resolution in particular, namely the composition of the Syndicate. Whatever the differences of opinion might have been before the adoption of the resolution, we do hope that unrepresented colleges both in Madras and the mofussil will come in for their share of representation, as a result of this.

We look forward to the next Senate meeting with great expectancy for a satisfactory solution of the question of the Intermediate failures.

Dr. Mackichan's address to the graduates of the University of Bombay is, as usual, an interesting and a weighty pronouncement.

upon some important educational questions of the day. Passing over the necessary, but at the same time a little too common, references of regret to the departed, and the more regrettable conflict of ideals of civilization which is going on at the moment, though the tide is in the turn against the mighty protagonist of iniquity on earth, Dr. Mackichan referred to three educational problems of the first importance at the time. The first is whether, in the Bombay University, real culture has advanced at the same rate at which education has advanced since the incorporation of the Bombay University, if an advance of culture is capable of predication at all. The answer of

Dr. Mackichan is an indubitable negative in respect of advance, though he is more halting in respect of retrogression in regard to the very culture. In his own words, judged, 'on the general result of the system as a whole,' the amount of progress that has been achieved falls far short of our reasonable expectation. This defect he ascribes to a want of co-ordination which we notice quite as prominently here at Madras, in the various stages of the educational system, leading up to the University as the head and crown of the whole. He feels satisfied that the system of elementary education is as good as it should be. He regards the secondary portion not up to the requirements of the University. He suggests two remedies, whose simultaneous application, in his view, would bring about a change for the better. The one is a large use of the vernacular as the medium of instruction in the High School classes, without at the same time sacrificing the acquisition of English. In the words of the learned Doctor which we have no hesitation in endorsing to the utmost of our authority, English is too much in use as the medium of instruction, and perhaps too early, in our schools. If it were more judiciously used as a medium it would perhaps be better studied and acquired as a language. This is not saying the same thing as vernacularizing secondary education, against which there follows a note of warning. The second

remedy is the postponing of the University course to the end of the first year of the collegiate course. This year is to be used as a preliminary course to the collegiate, intended chiefly to strengthen the knowledge of English of candidates entering the University. This is what has been done in the Mysore University and may with advantage be introduced into our own University in the light of the English results of the recent Intermediate examination which has been but too much in the public eye during the last few months. The question of defective equipment is here too much complicated by the actual heaviness of the University course, which oscillates between the ideals of the specialist in the subject and the philologist in the language courses to the great detriment of educational progress in the University as a whole.

He welcomes the recent creation of the Mysore University and appeals 'for closer intercourse and more mutual intelligence between the various Universities of this country,' but upon these two subjects his remarks are but few, though we would have welcomed a larger expression of the views of such a veteran educationist as the learned Vice-Chancellor of the sister University. We cannot bring our remarks to a close without making a small quotation from the address. 'I am profoundly impressed,' he said 'with the urgency of this matter (of closer intercourse among the Universities)

for upon its adjustment will depend the successful achievement of all those schemes of University development that are now before us. We say, amen, with all our heart, and hope that this gathering together of all academical experience will not long remain the dream of a distant future.

We are exceedingly pleased to peruse G. O. No. 882, dated 17th August 1916, recording report of the Hon'ble Mr. J. H. Stone, C.I.E., on the examinations under the control of the Commissioner for Government Examinations for the year 1915-16. The report affords most interesting reading as a record of varied and strenuous activity on the part of the office and particularly of those who direct and manage its work. No one can miss the thoroughness and zeal brought to bear upon the work relating to the various examinations held during the year under report. We extract below the resolution passed by the Board for the Award of Secondary School Leaving Certificate:— 'The Board at its last meeting before its reconstitution desires to place on record its appreciation of the able manner in which the arrangements connected with the Secondary School Leaving Certificates have been made by the office. The work during

the past three years has involved the issue of thousands of certificates to schools throughout the whole Presidency, the entering of large numbers of figures, and latterly all the additional entries required by the moderation of the certificates. *All this has been done with the utmost expedition and accuracy and with a thoroughness which reflects the highest credit on the office and its staff.* The above resolution, we think, is quite a fair appreciation of the intelligent and ceaseless labours from year's end to year's end, of the office headed by its Secretary, Mr. Geo. Maddox and its able Manager, Mr. R. Krishna Rao Bhonsle whose earnestness and zeal for the work deserve special mention. It is not often that a public office is put to such a strain in work demanding diligent watchfulness and ardent application. Once put to such a test, that an office is seen to rise quite up to the mark in work of so absorbing and varied character, entitles it to a just pride. As for the work itself, its variety and many-sided usefulness leave nothing to be desired. Examining bodies need care and caution at every step and this body appears to be well equipped with them both. We appreciate this good work in the field of education and congratulate the Commissioner, his thorough-going Secretary and his energetic Manager.

[The italics are ours.]

THE EDUCATION OF THE BLIND AND THE DEAF.

The Government of India, Education Department, have issued the following circular letter:— It has been brought to the notice of the Government of India that the arrangements for the education of the blind and the deaf and dumb in India are at present on an inadequate scale. There were, according to the last census, 41,558 children between the ages of 5 and 15 who were blind and 58,804 who were deaf and dumb, and for these there are in the whole of British India some 18 schools only, which provide instruction for something like 500 children. In the present state of general education it is impossible to deal with the problem in any complete manner, but it is believed that with the assistance of Government more might be done than at present to encourage and improve the education of defective children. The existing arrangements for this class of education are described in chapter 18 of the last quinquennial review of education in India, to which a reference is invited and there are various steps which have from time to time been suggested for the improvement of these arrangements. It has, for instance, been proposed that public attention should be drawn to the education of defectives by including references to them in school-books and by exhibitions of the work done by them, that the Braille system should be applied to

the Indian vernaculars, that agencies should be formed for providing industrial work for defectives after leaving school, and so forth. As regards the schools themselves it has been proposed that their organisation should be improved, that there should be greater uniformity in the syllabus adopted, that physical training should not be neglected, and that the education supplied should aim at a proper combination of general and industrial training. The Government of India desire to commend these suggestions for the consideration of Local Governments and for such support from local resources as may be possible when normal financial conditions are restored. While not precluding the institution of Government schools where this is thought advisable, they consider that schools for defectives are a form of effort peculiarly suitable for charitable agencies of a private character and that the support of Government should ordinarily take the form of assistance to private or board schools. The Government of India are, at the same time, satisfied that until properly-trained teachers are available anything in the shape of substantial progress is unlikely, and they would suggest that in cases where Local Governments find openings or the expansion of this class of education they should ascertain where teachers can suitably be taught in India or in England and give such assistance as is possible for the training of a limited number of special teachers.—*The Calcutta University Magazine.*

SOCIAL LEGISLATION UNDER HINDU GOVERNMENTS

BY

PROF. S. KRISHNASWAMI AIYANGAR, M.A.

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ENGLISH SOUNDS AND SPELLINGS.

IX

WE shall now proceed to consider the English sounds in detail and begin with the first of the ten groups into which we have divided all speech sounds. We have called the sounds which belong to this group "vowels" and defined the term as comprising all those voiced sounds in producing which the expired air has more or less free passage through the mouth without any audible friction in any part of its course. But the quality of any particular vowel sound will depend upon:

- (i) the shape of the lips;
- (ii) the part of the tongue raised;
- (iii) the height to which the tongue is raised;
- and (iv) the manner in which the sound is articulated.

The lips may be spread out or remain neutral or be rounded.

The part of the tongue raised may be either the front or the back or any intermediate point between the two limits. The blade of the tongue,

be it noted, does not take any active part in the production of the vowel sounds and the tip generally lies at ease near the lower row of teeth: these have their parts to play in the production of the consonants.

The height to which the tongue is raised may be graduated according to our convenience. We may adopt Sweet's three-fold division into "high," "mid" and "low" or, better still, Mr. Jones's four-fold division into "closed," "half-closed," "half-open" and "open," though these terms are somewhat misleading. But there will be no harm in adopting this four-fold division provided we understand exactly what we mean by the terms "closed" and "open." By "closed" we mean that position in which the tongue can lie without causing any audible friction in any part of the course of the sound. By "open" we mean that position in which the tongue lies as low as possible. We mark two positions between these two limits and call them respectively "half-closed" and "half-open." If in the closed position the tongue is raised a little higher, there is audible friction produced and the resulting

sounds will then be no more vowels. We shall have to refer to this point when speaking of the so called "semi vowels," j (in "yes") and w (in "what.")

The fourth and the last thing which determines the quality of a vowel is the manner in which the sound is articulated. Generally speaking, the longer we make the sound, the greater is the tension produced upon the vocal organs that are brought into play. We may therefore distinguish "tense" articulation from "lax" articulation. But this tenseness or laxity is a question of relativeness and cannot be easily decided in the case of open vowels. Broadly speaking, the long vowels are "tense" and the short vowels "lax."

We see now that the sounds may be "rounded" or "unrounded"; "back," or "mixed," or "front"; "closed," or "half closed," or "half open," or "open"; and lastly, "tense," or "lax." And if we apply our knowledge of permutations and combinations, we arrive at $2 \times 3 \times 4 \times 2$ or 48 "primary vowel positions" or according to Sweet, 36. But fortunately no language that we know of has got all these 48 vowels. We shall now see how many primary vowels we have got in English.

X

We do not know how many have been fortunate enough to be facetiously introduced to the words "facetious" and "abstemious." But we distinctly remember the occasion on which half a dozen of us, young urchins in the Lower Secondary classes, were nonplussed when a pupil in a higher form had asked us to give two English words in which all the English vowels were arranged in their proper order! We voted that he was a Creighton and importuned him to take us into his confidence and impart to us his wonderful discovery. Columbus would not have been prouder or gladder of his having discovered the New World than we were when we had made

sure that the two words did really occur in the English dictionary. We really thought then how clever Englishmen should be to have brought all the vowels together into two such words, in the very order in which the letters occur in the alphabet! When one, more ambitious, acquaintance of ours had the boldness to suggest the word "vexatious" as being equally good though not containing the five letters in their very order, we were really vexed and we vowed that he was an imposter. And indeed we pitied our vernaculars just as we now pity them for other reasons!

It may therefore be easily imagined how surprised we should have been when we later on found out that the five letters really stood for thrice as many primary sounds. The following nonsense sentences contain the fifteen sounds, each occurring but once—the sentences being read with emphasis on each word.

(i) *We saw not their fine cat. Come, let go her two carts.*

wi: sɔ: nɒt ðeɪ faɪn kæt. kʌm, let goʊ hɜ: tu: kɑ: ts.

(ii) *Come, Sir! He shall not let all their fine carts go too.*

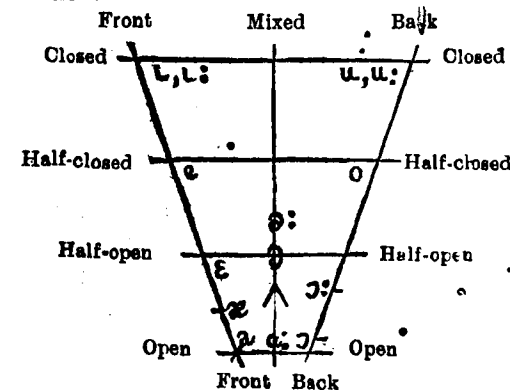
kʌm, sɜ: ! hi: ʃæl nɒt let ɔ:l ðeɪ faɪn kɑ:ts goʊ tu:.

(iii) *Ah, then! Go to, Sir! He shall not fight there for cups!*

ɑ:, ðen! goʊ tu: sɜ: ! hi: ʃæl nɒt faɪt ðeɪ fɔ: kʌps.

Analysing the vowel sounds, we find that there are five long vowels—i:, ɜ:, ɔ:, u: & e:—seven short vowels—i, e, æ, ɒ, ʊ, ʌ & ɐ,—and three more vowels, ɛ, ʌ & ɔ, which are used only in diphthongs as their first elements, their second elements being one of the three short sounds—i, u and ɐ. It will be found convenient to have

all these sounds arranged in the following manner:



The above arrangement shows at a glance what the characteristics are which distinguish the quality of each vowel-sound. In the case of the four pairs of long and short vowels, i: and ɪ, ɜ: & ɒ, u: & ʊ, and ɔ: & ɔ, the difference is not only in the length of the sounds, but also in quality and it is this which justifies us in counting them as separate sounds. i:, for instance, in addition to being a tense sound is more closed than the short lax sound, ɪ.

The lax vowels have a tendency not to be very clear, because the vocal organs are not so sharply brought into play as will ensure their attaining the correct position with exactitude. But in the case of the tense vowels, the vocal organs have to assume determined positions because there is time for the muscular tension to work and the sounds are therefore clear and distinct. A little experiment, with a hand mirror, of one's own speech will make all these points clear. It is recommended that in trying to distinguish between any two mouth positions for vowels the student whispers the sounds instead of voicing them, for the voice being removed out of the way, his appreciation of the differences will be adequate.

We have hitherto spoken of the fifteen "primary vowel-sounds" in English, of which five long and seven short occur by themselves and

the remaining three in diphthongs. We shall now consider how many diphthongs there are in English. As we have already pointed out, we shall not take into our consideration the diphthongisation, which is common in the South, of the sounds in "seat" and "shoot" where the pure long vowels are to be recommended. Nor shall we take into account the slight diphthongisation which occurs in r-words like "far" and "more." On the other hand, we shall restrict ourselves to those diphthongs which have securely established themselves in the South.

By a diphthong is meant a combination of two vowel sounds constituting a single syllable. The English diphthongs are illustrated by the following sentence:—

There goes your stout boy. Here stays mine.
ðeə goʊz ju: staut bɔɪ. hɪə steɪz maɪn.

We shall have occasion to deal at some length with these eight diphthongs, but we should point out here that no analysis of the English vowel sounds can be complete if these eight diphthongs are not recognised as separate entities. Hence we arrive at twenty vowel sounds in English, of which five are long, seven short and the remaining eight diphthongal. The following sentence, read with emphasis on each word, will serve as an illustration:—

No thanks to you, my worthy boy-friend, for your green plums from their garden. Now, clear away.
nɒ θæŋks tu: ju:, maɪ wɜ:ði bɔɪ-frend, fɔ: ju: gri:n plʌmz frɒm ðeə ɡɑ:dn. naʊ, kliə əweɪ.

XI

We shall now proceed to consider the vowel sounds one by one. We shall take the long sounds to begin with, then pass on to the short sounds and finish with the diphthongs.

We have already said that in determining the quality of every vowel there are four points to consider:—

(1) lips: unrounded or rounded,

- (2) part of the tongue: front or back, or mixed.
 (3) position of the tongue: open, or half-open, or half-closed, or closed;
 and (4) vocal organs: tense or lax.

If follows therefore that a vowel sound is completely defined if we say, for instance, it is an *unrounded-front-closed-tense sound*. This sound occurs in "feet" (fi:t).

We shall now begin with the *a:* sound in "father" (fa:ðə). It is a well-defined and easily articulated sound which requires but little effort to pronounce. As a matter of fact it is the earliest sound a child begins to utter and it very often occurs as a form of interjection among grown-up people.

It may be defined as an *unrounded-mixed-open-lax sound*. The tongue is practically as low as possible.

Pedantic affectations sometimes produce the wrong sound. Care should be taken that *a:* is not fronted to the *a*-position, nor backed so as to produce a deeper sound. There is also a tendency in some speakers to nasalise it as in Konkini or Malayalam, which should be discouraged. The lips are in a neutral position, neither rounded, nor spread. It should be noted that this is the only long sound in English which is more or less laxly articulated.

SPELLINGS:

- (1) *a*—path, father, plant, branch.
 (a) before *f*. after, chaff.
 (b) —*n* + const. + *e*. advance.
 (c) —*s* or *ss*. ask, glass.
 (d) —*th*. bath, path.
 (2) *al* (*l* mute) half, balm, palm.
 (3) *ar* bark, farm, scarlet.

RARE SPELLINGS.

- (4) *aa* baa
 (5) *ah* ah, shah, hurrah.
 (6) *ai* plaister (=plaster)
 (7) *au* aunt,

- (8) *au*th (=a: f) laugh, draught.
 (9) *aar* ba:aar (bə'zɑ:)
 (10) *are* are
 (11) *ear* hearken, heart, hearth.
 (12) *er* sergeant, clerk, Derby, Berkshire (bɑ:kʃə), Hertfordshire (hɑ:fədʃə).

- (13) *uar* guard.
 (14) *at* (*t* mute) eclat ('eiklɑ: or e'klɑ:)
 (15) *a* + const. + *e*. vase (vɑ:z, but in America, veiz).
 mirage (mi'rɑ:ʒ)
 (16) *oir* (=wɔ: or wɑ:, but wɔ: may be recommended).

memoir ('memwɔ: or a:)

reservoir ('rezəvɔ: or a:)

NOTE.—(i) In many words when *a* is followed by *f*, or *n*, or *s*, plus const., it is sometimes pronounced as *æ* instead of the standard *a:*. Instances are "plant" (plænt), "mask" (mæsk) and "raft" (ræft). In all such cases *a:* is preferable. But not in words like "mass" (mæs) and "ant" (ænt) where *æ* is the sound used.

(ii) The history of the words "sergeant" and "serjeant" is interesting. At first the two words were merely variants in spelling. But later on a distinction has been made. A "sergeant" is a non-commissioned officer in the army, or an officer in the police, while a "serjeant" is a lawyer, or an officer of the royal household.

XII.

i:

i: may be defined as an *unrounded-front-closed-tense sound*. It is the long sound corresponding to the short *i* sound in stressed syllables. In producing *i:* the corners of the mouth are drawn as far apart as possible and the tongue is in the highest vowel position possible for a front sound. If the tongue is raised further up, there is friction created in making the sound which is therefore not a vowel, but a consonant. The resulting sound in such a case is *j* (in "yes" —jes).

There seems to be a divergence of opinion with regard to the actual amount of spreading of the lips in the production of the front sounds. But the point to note is that the lips are not merely neutral. Just as in the case of the back sounds, the more the tongue rises, the more rounded become the lips, so also in the case of the front sounds, the more the tongue rises, the less neutral become the lips and the more pronounced the spreading. In careless speech there is a tendency to lose sight of the rounding in the case of back sounds and spreading in the case of the front sounds.

Many speakers in the South slightly diphthongise the sound, making it *ij* or *i.j*. But the pure long sound is always recommended by phoneticians.

SPELLINGS:

- (1) *e* (a) *final* —he, be, she.
 (b) *medial*—being, legal, cedar (si:ðə), demon (di:mən).
 (c) *initial*—epoch (i:pək), evil, eland (i:lənd).
 (2) *ea* (a) *final* —sea, pea, lea.
 (b) *medial*—peat, mead, lead (verb).
 (c) *initial*—each, east, eat.
 (3) *ee* (a) *final* —feel, see, ghee.
 (b) *medial*—feel, steel, reed.
 (c) *initial*—eel.
 (4) *e* + const. + *e* —concede, theme, eve.
 (5) *ei* —conceit, deceit, plebeian (pli'bi:ən).
 (6) *eip* (*p* mute)—receipt.
 (7) *eig* (*g* mute) } seignory or signiory
 or *ig* (*g* mute) } (si:njəri).
 (8) *ei* + const. + *e* —conceive, perceive, inveigle (invi:gl).
 (9) *i*—invalid ['inveli:d = disabled for active service in'vælid = not valid.]
 (10) *ie*—chief, fiend (fi:nd), field.
 (11) *i* + const. + *e* —police (pe'li:s), machine (meʃ:n) quinine (kwini:n), marine (mə'ri:n).
 (12) *ie* + const. + *e* —siege, believe, relieve.
 (13) *ey*—key.

- (14) *ay*—quay (ki:).
 (15) *æ*—Cæsar (si:zə), Æneid. (i:njɪd).
 (16) *eo* + const. *e*—people.
 (17) *eau*—Beauchamp (bi:tʃəm).
 (18) *ui*—mosquitoes (mə'ski:touz).
 (19) *aiu*—Caius (ki:z kolidʒ iŋ Cambridge, but the Roman name is kaies).
 (20) *igh* or *egh* (*gh* mute)—Leigh or Legh (li:).

We must add here that the list of spellings given under each sound does not pretend to be exhaustive. It may be quite possible to make it perhaps half as long again. Nor is the number of proper nouns included in any way representative of the possible variations: for, it may not be an exaggeration to say that there are as many spellings for proper nouns as there are names of persons and places in the British Isles. We must confess that we have not attempted that almost impossible task of recording them. Greater men than ourselves might say with the poet:

"I have, God woot, a large feeld to ere,
 And wayke been the oxen in my ploggh;
 The remenant of the tale is long ynough;
 I wol nat letten eek upon of this route."—Chaucer.
 But the instances we have included may serve a practical purpose, for those are some of the names which occur very often.

We must also add that we are not unaware of the fact that the statistical method is not calculated to be very interesting to the general reader. But we are not able to find a way out of the difficulty. We have, it seems to us, but one remedy to which we have already had recourse, viz., to frame our own nonsense sentences like the following which may be taken, for want of a better one, to represent the various spellings for the *a:* sound,

When the artless aunt of the memoir-writer is received in the bazaar-street with great ecstacy, the heartless sergeants who are on guard laugh and cry, "Hurrah to her flask, balm, plaister and vase!"

(To be continued.)

T. A. RAMAIA.

YOUNG MEN AND MODERN INDIA.

I

IT cannot be unknown to us that there are not wanting persons who perceive in the establishment of British rule in this country, the dispensation of a wise and benign Providence. Apart from the fact as to whether there is anything providential or not in it, it must appear to us all that this event is certainly one of great and lasting importance, having regard as much to its actual achievements, as to its possibilities, near and remote. It goes without saying that, towards the middle of the 18th century, India was fast drifting into a condition of anarchy and chaos and that, consequently, in the interests of peace, order and progress, nothing was more essential for this country than the establishment of a paramount power strong, efficient and civilised. Happily for this country, however, there appeared, at this critical juncture, a strong and civilised power, *viz.*, the English East India Company, to which it was given—as we all know—to save the country from welter and anarchy and to inaugurate an era of peace and progress.

Having been merely a trading corporation for about a century and a half, it was about the middle of the 18th century that the Company slowly became a political and ruling power. Thence, for about a century, the Company was engaged in acquiring territories and establishing its suzerainty in the land. The achievements of Clive, Wellesley, Hastings and Dalhousie in this connection are well-known to us. Along with conquests, also went measures of organisation and consolidation, of enlightenment and progress. The triumphs of war, however memorable in themselves, were soon followed by the nobler, the more magnificent, the more enduring triumphs of peace. Many are these triumphs that are associated with the illustrious names of such statesmen as Bentinck, Dalhousie and Ripon, of Elphinstone and Munro, to name but a few.

A stately and stable edifice of administration was reared: the country was covered with a network of roads, railways and telegraphs: the postal system was organised: the resources of the country were developed and an impetus was given to industries and trade: the mischievous gangs of Pindarees, Thugs and other classes of banditti were suppressed and thanks to an efficient military, police and judicial system, peace and tranquillity firmly established in the land. Last but not least, English was declared to be the official language and English education introduced. The priceless treasures of western literature, knowledge and thought were, in this way, brought to the very doors of Indians and a new and powerful leaven was thus set to work. For the furtherance and control of higher education, Universities were established. In spite of the fact that, for a long time, our Universities continued but as examining bodies, uninspired by higher ideals and unstirred by breezy influences from outside, no small debt do we really owe to them, as nurseries of higher education in this country, from whose portals have issued some of the best and brightest sons of our land whose names and memories are our possessions for ever. It is to these and other beneficent measures of our rulers, that we owe the India of to-day and all the subtle forces—intellectual and moral—working in our midst.

II

I will now proceed to consider very briefly the important results that have followed from the enlightened policy of our rules during the three-quarters of a century that has preceded us. The first important result to be noted is the promotion of a spirit of unity and of co-operation among the heterogeneous peoples of India. It is well-known to us that India is a land of many complex races and civilisations, of innumerable castes, creeds and dialects. For centuries, the scattered and diverse peoples of this country had hardly any

opportunities for free or close relations with one another and were leading somewhat isolated lives. United enterprises and national activities were unknown and, under the circumstances, impossible. But now, thanks to the influence of the material agencies already referred to and of a common government, a common language and a common education, the scattered and divided peoples of this country are being drawn closer and closer together and a spirit of nationality is taking firm hold of their minds. Having regard to the national awakening that has been produced and the slow unification of races that is going on, national activities and enterprises, as is well-known to us, have become no uncommon features of Indian public life to-day.

In the second place, it may be noted that, by reason of the liberal and enlightened policy of our rulers, something like a Renaissance has been brought about in this country. Whereas the European Renaissance of the fifteenth century was the outcome of a revived study of the classics, the Indian Renaissance of to-day is the outcome of the study of a living literature, which in its variety, its magnificence, its power of stimulus and inspiration, is second to no other. Like the European movement, the Indian too is somewhat many-sided in its character and there is not a phase of national life or activity that has not been influenced by it. Thanks to this movement, a spirit of inquiry and research has been quickened in the minds of educated Indians and the search-light of reason has come to be applied to all things in heaven and earth. As in Europe, so in India too, the long slumber of ages has been broken and the spell of authority is being snapped. The stagnant and sluggish waters of Indian life and thought have been stirred to their depths and a new ferment has been produced in this country. In a word, in India as in Europe, a mighty spirit has been unchained with all the attendant results that we witness to-day.

It must be apparent to all of us that the current of a new life is now sweeping through the veins of India and that new hopes and ideas, ambitions and aspirations are visible everywhere—in a word, that a 'new spirit' is abroad in the land. This 'new spirit' has been recognised by all thoughtful observers, including responsible statesmen and by all well-wishers of this country has been acclaimed with enthusiasm. Commenting on this new spirit, this is what Lord Morley observes:—

"Every one—soldiers, travellers, journalists—they all tell us that there is a new spirit abroad in India. Be it so! How could you expect anything else? You have been educating the people for years with western ideas and literature. You have given them facilities for communication with one another..... You cannot go on narrowly on the old lines....."

What had been foreseen long ago by thoughtful observers is now taking place and educated India is pulsating with a new life which is as clear and unmistakable as anything could be.

III

Having regard to the 'new spirit' that is abroad, the new hopes, ideas and aspirations that have seized the minds of educated Indians, the new fields of activity opening out before them and the progress that has been and is being made in these fields, it may easily be seen that India is now on the threshold of a new and grand epoch in her history. The making of this epoch however, rests, to a considerable extent, in the hands of our young men. It is a well-known saying that the students of to-day are but the citizens of to-morrow. To most of those that are in our schools and colleges to-day, it will be given in a few years to enter 'life's broad field of battle' and it must certainly be our ambition that, instead of being 'dumb, driven, cattle' every one of them should be a 'hero in the strife' and conduct himself manfully, and worthily as a

citizen. Such being the case, a serious responsibility certainly devolves on our students to train and prepare themselves, during their career at school and college, for the arduous duties awaiting them in later life. If only we bear in mind the immense potentialities for good and for evil that lie latent in the young men of a country, it can easily be realised why, in all ages and in all climes, such supreme importance should have been attached to the training and education of youth. What then is the character of the training and preparation that our young men have to receive?

In the first place, it behoves one and all of our young men to lay broad and deep, the foundations of sound and useful knowledge. The knowledge acquired may be of any kind—scientific, historical, literary—ascending to their aptitudes and opportunities. We all know that knowledge is power, that it is the man of knowledge alone that can command respect and wield influence and will be able to handle, with skill and efficiency, intricate and important problems of any kind. If public questions in any country are to be handled in anything more than an amateurish or dilettante fashion, if there is to be real and substantial progress in any sphere, nothing is more necessary than that, in the first place, there should be men of profound knowledge and secondly, that they should be actuated by a missionary spirit. In addition to knowledge, it is also necessary that our young men should acquire a habit of clear thinking, of consistent reasoning and of patient inquiry. The complaint is often made that, all that our students care for is only to scrape through examinations somehow. If this were true, much can certainly be done by teachers and professors to create a healthy atmosphere about them, to inspire them with higher ideals and to instil in their minds a love of knowledge and a habit of study and research.

In the second place, it devolves upon our young men to acquire a great many useful and

important habits during their academic career. First, a habit of steady industry must be cultivated. It need not be said that, without this habit, no success is possible for any man, however gifted he might be. 'Genius is only a capacity for taking pains' says Carlyle. Secondly, a habit of thoroughness must be acquired. We all know that thoroughness was a distinguishing trait of the late Mr. Gokhale and contributed, to no small extent, to his success and greatness. Young men and for the matter of that, older men too, cannot do better than bear carefully in mind Solomon's wise saying, "Whatever thy hand findeth to do, do it with all thy might." Thirdly, it is possible as well as highly desirable for our students to acquire a habit of co-operation and of initiative, and some sort of practical training in concerted and organised activities and in the art of self-government. In the Universities of America and some other countries, we do find that students are actually trained for self-government. In America, for example, we read that, "all schools and colleges are little republics in which the internal affairs of the student community are governed and administered by officers elected by themselves. Every year the students of each Department elect their officers and also a Council which regulates all matters relating to discipline. All complaints of misconduct or misbehaviour are reported to them and their decisions are reported to the head of the Department for necessary action. Theoretically, the head of the Department may or may not act on the recommendation of the Students' Council but in practice he must." Cannot a system like this be tried, *mutatis mutandis*, in Indian Colleges too?

In the third place, it behoves all our young men to improve their character, by all possible means, and to cultivate a great many laudable traits. We all know that, of late, complaints have often been heard that the students of this country are getting somewhat 'touchy,' that they

think more of their rights than of their duties, that they have been getting somewhat restive, and intractable and irreverent towards those to whom reverence is justly due. Seeing that Indian students have been proverbially docile and law-abiding, complaints like these cannot come, except as a surprise, to us all. Apart from the fact as to whether there is any truth or not in these charges, it may, without hesitation, be observed that, if students have their rights, they have their duties too and that they should think of their duties first and of their rights afterwards. "Only those who have learnt to obey are fit to command." Among the duties that our students have to learn and practice none can possibly be more important than the duty of obedience to constituted authority, of loyal adherence to rules, of discipline even under temptations, of reverence towards superiors and elders, of modesty in speech and conduct. Further, it must be highly necessary for our young men to cultivate sublime qualities like patriotism, moral courage, sympathy for those less fortunately placed, self-sacrifice. Referring to the equipment of a public worker this is what Gokhale says—"A fervent patriotism which rejoices at every opportunity of sacrifice to the mother-land, a dauntless heart which refuses to be turned from its object by difficulty or danger, a deep faith in the purpose of Providence which nothing can shake—equipped with these, the worker must start on his mission and reverently seek the joy which comes of spending oneself in the service of one's country." In the case of some of our students at least, are they not public workers in embryo?

IV

I will now proceed to consider very briefly some of the important spheres of activity that happen to educated Indians to-day and for which, our young men need prepare themselves.

(a) Politics.

It is well-known that, in the sphere of politics,

the new spirit that is now abroad in this country has given birth to new hopes and aspirations as well as to varied forms of activity—national, provincial and parochial. In spite of all its disappointments, discouragements, difficulties, and even dangers, it need not be said that there can be no field of work so important or so fascinating to an educated man as politics. As for students, however, nothing can be more undesirable for them than to take any part in current political agitations and activities. While this is so, it is certainly advisable that they should, at any rate, cultivate an acquaintance with the current political and economic questions of the country. The observations once made by our great patriot—Mr. Gokhale—in this connection—may well be reproduced here.

"The present policy of treating politics and especially current politics as a dangerous and even, in some respects, as a forbidden subject has only resulted in depriving the students of that guidance, to which they are entitled, at the hands of their teachers, in forming sound views on important questions..... The very fact that our students cannot help taking an interest in politics before their time goes to emphasise the great need that exists for their efficient political education. Our students should be encouraged to discuss political matters freely in the college and publicists whose opinions are entitled to weight should, from time to time, be invited to take part in the discussions. They should be at liberty to attend public lectures and addresses on political subjects and they may even attend political meetings with advantage, provided they are there only as spectators."

(b) Agriculture and Industries.

It need not be said that as it is, Indian agriculture is really bad and stands in need of very great improvement. The condition of our peasantry too is deplorable. One has only to consider for a moment the state of agriculture in

countries like America, Japan, Holland, Denmark, etc., to realise how backward and antiquated Indian agriculture really is and how ridiculously poor the productivity of Indian soil. To no small extent is the backwardness of Indian agriculture due to the ignorance, poverty, apathy and conservatism, of our tenants. Seeing that a nation dwells in the cottage, which is especially true of India, nothing can be more important, in the interests of national progress and prosperity, than that the condition of Indian agriculture and of Indian agriculturists should be substantially improved. Here then is a useful and important field of activity to engage the attention of patriotic young men. If Indian agriculture is really to improve, if sound and progressive methods are to come into vogue, and if a gleam of brightness is to shine in the countryside, it is highly desirable that more and more of our young men should take to agriculture and, after undergoing a sound course of training in an agricultural college and acquainting themselves with new and progressive methods, should set themselves up as agriculturists and by the practical adoption of these methods, set a laudable example to their brethren and diffuse light and radiance around.

The condition of Indian industries too is no better. It is well known to us that, at present, India is more a producer and exporter of raw materials than a manufacturing country herself. Such being the case, it need not be said that there is abundant scope in this country for the progress of industries which, in the interests of national prosperity, is no less important than agricultural improvement. In connection with industries then, there is quite as useful and attractive a field for the ambition and enterprise of our educated young men as in connection with agriculture. For the industrial regeneration of our land, it is highly necessary, amongst other things, that more and more of our young men

should, year after year, turn their eyes to technical engineering and technological institutes here or abroad and, after undergoing a systematic course there, should bring the valuable knowledge and training acquired in these institutes, to bear on industrial progress. Commerce too is a department to which a large number of our young men may well turn their attention.

(c) *Social and Religious Reform.*

It must be apparent to all of us that there is great need for social and religious reformation amongst us. Not a few customs, practices and institutions can be found in our society which are somewhat out of harmony with the times and consequently detrimental to progress. It need not therefore be said that some of these may have to be modified or adjusted according to modern conditions. As the Poet says, "he is the true conservative that lops the mouldered branch away." There can be nothing rigid or inflexible in social laws, usages and institutions, in any progressive society. It must be well for us all, to bear in mind that,

The old order changeth, giving place to new,
God fulfils himself in many ways, lest
One good custom should corrupt the world.

Taking our popular religion, it will be found that it is the *letter* more than the *spirit* that is generally emphasised and followed. In fact, our popular religion has come, more or less, to be a round of empty symbols, practices and ceremonies, performed in a dull and mechanical fashion, without our knowing their spirit, essence and meaning. The ethical character or influence of the religion does not appear to be much in evidence. It must therefore appear to thoughtful observers that our religion—as it is—will only become all the better, if made a little less ritualistic and ceremonial and more potent, as a moral force and influence, in our every-day lives. No religion can be of any real service to man unless it be a lever to moral progress and a factor in the build-

ing-up of character. We all know that, in many parts of the country, movements are now carried on, with greater or less success, for social and religious reform. Here, then, is an immense field for the patriotism, the enthusiasm, the courage and the self-sacrifice of every educated Indian and it need not be said that it must be the ambition of every young man to make a careful and intelligent study of social and religious questions and help the cause of reform—if reform appears to him really needed—to the best of his power.

In this connection, it may further be observed that there are various forms of social service to which it is the duty of our young men, as far as lies in their power, to apply themselves. Among all forms of social service, the elevation—material and moral—of the depressed classes is the most important. Every educated man can do something in this direction and that something, he must ungrudgingly do. Seeing that the depressed classes form the bulk of the Indian population, their weal and prosperity must certainly be matters of serious concern to every Indian patriot.

(d) *Literature and Journalism.*

Thanks to the half a century or so, of English education that the Indians have been receiving, it is well-known that an Indo-English literature has been steadily growing up in this country. Farther, it may be seen that, not a few of the vernaculars too have been vivified and stimulated by the influence of English. While, in western countries, literature is a colossal profession with its giant armies of zealous votaries, in India, however, it is in an infant stage yet. Having regard, however, to the stupendous numbers of Indian population, the steady growth of education and of a reading public, the vigour and flexibility of most Indian vernaculars and their long course of evolution, the keenness and vitality of the Indian intellect the plethora of materials for literary work in India, in her

myriad civilisations, having regard to these and other circumstances, we must certainly say that a very bright future lies in store for English, but especially for vernacular literatures, in this country. Here is a profession of such dignity and importance that, to it, in spite of its initial difficulties and discouragements, more and more of our young men of a literary bent should direct their attention in the years to come. It will certainly be a good thing if our students were to be in a way trained, in schools and colleges, for literary activities, by the starting of students' journals and in other ways.

If the man of letters is indeed a power in any land, the journalist too is a power. With all the progress that journalism—English as well as Vernacular—has made in this country, it must still be regarded as an infant growth. While most of the papers and magazines of the civilised countries of the West as well as of Japan, can boast of hundreds of thousands, if not of millions, of subscribers, the circulation of most Indian papers and magazines will be found to be extremely limited. The importance however of journalism in this country, in more ways than one, cannot possibly be over-estimated. With the diffusion of education and the consequent growth of a reading public in this country, journalism too, especially vernacular journalism, is bound to grow. It need not be said that it must be the laudable aspiration of large numbers of our young men to connect themselves in some capacity or other with this line of activity, so far as time and opportunities allow and thus render an important service to their motherland.

P. S. RAMAKRISHNA IYER.

SECONDARY EDUCATION FOR GIRLS.*

I AM very thankful that I have had this privilege of being present here and taking part in this function. The subject of women's education has been before the public for some time. It is due to the Circular of the Government of India asking Local Governments and Local Boards and Municipalities to give their opinion on certain matters relating to this subject. I am afraid, however, that the question of secondary education for girls has not received sufficient attention and public opinion has not been adequately focussed on it, and I make no apology therefore for placing before you some thoughts bearing upon it. I say 'secondary education' advisedly, because elementary education for girls has come to be looked upon almost as a necessity and no one now questions its usefulness. Time was, of course, when our fathers and mothers denounced education for girls as a new fangled idea and foreboded nothing but evil from it. I remember a funny story related some time ago by a Missionary lady in the North. It would appear she had gone to some village in the interior and preached to its inhabitants the value of education. Incidentally, of course, she had referred to the benefit she herself had derived from education. After the discourse was over, an old man came to her and said, 'We don't want any education for our women.'—'And why,' asked the lady. 'Because we don't want our women to run away from home as you have done,' was the reply. Those days, however, have happily gone by; the facilities for education of girls have gone on increasing, and parents find it even economically advantageous to have their daughters educated, for in the matrimonial market an educated girl

*A lecture delivered at the Anniversary of the Students' Union, Conjeevaram, by Mr. P. A. Subramania Iyer, B.A., L.T., Headmaster, H. H. School, Triplicane, with Prof. K. B. Ramaswami, M.A., B.L., L.T., in the chair.

has a readier and easier bid than an illiterate one, and a girl with no education means a few hundred rupees of bridegroom pride extra. Whatever that may be, the first sods in the field of female education have already been turned, and although the process was somewhat difficult, the crop raised has abundantly justified the difficulty braved and the trials undergone. And we in India and particularly in Madras have now arrived at a stage when another move has to be made in the same field and it seems to me that it is necessary for us to look about ourselves and think, before we make up our minds along what lines we should advance.

It must be remembered at the outset that one chief reason why English education was introduced into India was that it would supply the State with an army of clerks needed for the carrying on of the administration of the country, and although Macaulay in his famous Minute referred to the liberalizing and cultural influence which Western education would have on Indians, the immediate object of the East India Company was to raise a body of men to help them in their work of running the administrative machinery of the country. And those who took to that education also did so because of the material advantage that they expected to flow from it in the shape of service under Government and high emoluments. The realization of the beneficent influence of Western education on mind and character and its value as an instrument of culture came to be appreciated only later, and if the latter were the only object in pursuing English studies, I wonder if very many of us would learn English at all. Suppose our Government ruled to-morrow that English would cease to be the State language and Tamil or any other Indian Vernacular were substituted in its place, how many of us would care to send our sons to English schools? Hardly any or possibly none. It does not mean, of course, that we under-rate the cultural value of

Western learning, but there is no denying the fact that the majority of us look upon it merely as a means of livelihood.

Those of us that consider the question of providing for secondary and higher education of girls will do well to keep this in mind, for, for a very, very long time to come, education for girls will be looked upon only as an ornament, as a means of liberal culture and not as a means of earning a livelihood. It is on this account that we do not see among parents the same earnest desire to give their daughters the benefits of higher education that we see them manifest in the case of their boys. A large percentage of the population of our villages in this province have migrated to towns and cities just for the purpose of enabling boys to go to schools and pass examinations. And I believe I am right in saying that very few parents see the need of doing this in respect of their girls. For some time to come, therefore, secondary and higher education will be confined to the class of girls whose parents can afford the expense of giving them that education purely for the culture that it ensures without looking forward to any remuneration that it may bring in the shape of emoluments or office. And it naturally follows that the demand for such education being limited, the facilities for it will be confined only to towns or cities. In short, higher education for girls will be largely only for such of them as belong to what are known as the 'leisured classes.'

There is, however, another class also from whom a demand for secondary and higher education proceeds. It is a fact well known to us that, as a result of the modern conditions of life, many of our old institutions are fast disappearing. The self-containedness of our village communities is gone, the struggle for life under the growing strain of competition is increasing, the joint family system is in consequence fast crumbling down, and society is getting to be established more and more on an individualistic basis. This

circumstance has forced or is forcing a class of women and girls to look to some means of earning a livelihood, so that they may be able to lead honest and decent lives. And what is the nature of the calling for which these will have to be equipped? Even those amongst us that hold the most advanced views in the matter will acknowledge that it will take many generations for western conditions to reproduce themselves in this country to such an extent as to lead our women to compete with men in all walks of life. As it is, the occupations which are most conducive to them by reason of their habits and temperament and which they can take to without greatly offending public opinion among their women-folk are teaching and medical practice. And secondary education imparted to them should prepare them for these.

This then is the position. Secondary and higher education for girls will for a long time to come be looked upon only as a means of culture; it will not be considered as a means of livelihood, as it is in the case of boys. So the demand for it will come only from the 'rich and leisured classes' who are found mostly in towns and cities. There is also a small but growing class of women that take to education so that they may earn a living by teaching or medical practice.

Now the question is what is the sort of instruction that should be given to these two classes of girls, and how such instruction should be imparted. Recently, the Madras Government have, thanks to the zeal of His Excellency Lord Kentland in the matter, started under their own auspices two secondary schools for girls, one at Triplicane and the other at Vizagapatam. A few days ago, I had the pleasure of going over the school at Triplicane and seeing the classes at work. The premises are excellently kept, the work has been organized very well indeed, the teachers, most of whom are of European or Anglo-Indian extraction, seem to be really

earnest and enthusiastic about their work, and the pupils too, drawn mostly from the high class Brahmin families of Triplicane, are very bright and cheerful and seem to like the school and the training given to them there. Instruction is imparted solely through English in the Lower Secondary and High School Departments, and till March last the same was the case in the Primary Department as well. Indian music is taught in the lower classes and European music in the higher. The Lady-Principal told me that some pupils of the 4th and 5th Forms were able to compose small verses in English and kindly showed me some specimens, one or two of which, I thought, were very good indeed.

You may remember, gentlemen, the discussion that took place in the Local Legislative Council in March last on a resolution regarding the medium of instruction in this school brought forward by the Hon'ble Mr. V. S. Srinivasa Sastrigal. All the non-official members that took part in it except one were in favour of the suggestion that instruction in non-language subjects should be through the medium of the vernacular but the spokesman on behalf of Government said that a large number of parents wished their daughters to learn as much of English as possible during the time they stayed at school and so Government did not consider it necessary or desirable to effect the proposed change. In answer to this, the Hon'ble Mr. Sastrigal showed a memorial signed by some of the most enlightened public men in Triplicane signifying their disapproval of the adoption of English as the medium of instruction in non-language subjects.

I can well imagine the desire of many parents to have their daughters learn English as well and as quickly as possible. It is the natural outcome of a desire that their girls 'should shine in society.' Ladies' clubs are growing up in the city, European ladies become members thereof and we may pardon the anxiety of many a fond

mother that her daughter should have the reputation of a brilliant conversationalist. No thought of breadth of view or soundness of culture or scholarship comes in, and the "rose's brief, bright life of joy" is her only ambition. It may be that the most thoughtful of men and women in European countries deplore the existence therein of this state of things which we are only trying to reproduce—Says a lady writer, "The canker of this superficiality eats deep into all ranks of society, it is not confined to those who are sometimes called the 'leisured classes,' for all the way through, in professional circles, among the industrials, right to the very lowest, this curse of an aimless, gossiping and superficial life descends." But the Indian mother or father knows nothing of these. They are carried away by the novelty, the glamour and the glitter of fashion and have nothing else to do but to imitate.

But there is nothing strange about this, however. We are only repeating what has already taken place in respect of boys' education. Time was when the medium of instruction in boys' schools also was English up to the I Form. And it took nearly twenty years for the Educational Department and the public to realize that such a system was undesirable, that it encouraged cram and that pupils under that system derived really no substantial knowledge of the subjects taught. And now opinion is gradually gaining ground that even in the High School Department instruction in non-language subjects should be through the medium of vernaculars and the Late Bishop of Madras foresees the establishment of Vernacular Universities all over India.

Under circumstances like these, is it not the duty of the leaders of public opinion to see that we do not repeat the mistake once committed and are not put to the necessity of retracing our steps again? If even in the case of boys whose case knowledge of English is synonymous with some means of livelihood it is necessary that instruction in non-language subjects

be in the vernacular, does it not stand to reason that it should be much more so in the case of girls who have no great use for English language as such? If it is admitted in the case of boys that non-language subjects are better and more thoroughly learnt if taught in and through the vernacular, why think that the same would not be the case where girls are concerned? Clearly a very important duty devolves on our leaders in this matter. They have to agitate in the matter and persuade Government to rule that all instruction in Secondary Schools for girls is imparted only in the vernacular. And in the present state of our province our need is great for women with a good grounding in the vernaculars.

As I have already said, women having to earn a living for themselves will either become teachers or practise medicine. The number of women that become teachers will naturally be much larger than those taking to medicine and what is more necessary for a teacher in an Elementary School than a good knowledge of the vernacular? Even as regards medicine, there is a proposal before the Government of India that provision should be made for instruction in medicine being imparted through the vernaculars and it will be only in the fitness of things that such women as wish to profit by the scheme when it comes to be worked should have a good knowledge of the vernacular. It is by no means assumed, however, that English will not be taught at all in Secondary Schools. On the other hand, it will continue to receive adequate attention and I will heartily recommend that wherever it is possible English or Anglo-Indian ladies be appointed to teach this subject. Even to the class of girls belonging to the leisured classes who take to studies solely with a view to culture the same arrangement will do good. Apart from the fact that they will not come to learn English, they will be taken through a course in their vernacular or Sanskrit and I

venture to think that so far as the disciplinary value of the study of classics is concerned, there is no great difference between English literature and vernacular literature. I am prepared to admit, however, that English literature is much richer, presents a wider outlook on the problems of life and human destiny and makes us acquainted with a much larger variety of types of character and types of human thought than Vernacular literature, but it should be remembered that at school boys or girls are not introduced to this literature as such, but are only equipped with the knowledge of language sufficient to enable them to read and understand English literature. The actual study and appreciation of good English literature comes only later. If, however, the same amount of attention is paid to Vernacular literature, I have no doubt that some of the best classics in it may be read in classes and made to be appreciated by girls. And when it is remembered that the more important knowledge-giving subjects such as History, Geography or Science will not be neglected but continued to be taught and that English will find a prominent place in the curriculum, no apprehension need be entertained lest instruction imparted on the proposed lines should happen to be narrow or one-sided and not sufficiently rationalistic to open the eyes of the mind and make us see things in their due perspective.

I am distinctly of opinion, therefore, that secondary education for girls should be in the various vernaculars and that English should be taught them as an optional language. And if in this I err, I am content to err with Prof. Karve of Poona who has succeeded in bringing to fruition his scheme of a Women's University for India where the medium of instruction to young women is to be their vernaculars and not English.

The next point that has to come up for consideration is what curriculum shall be

followed in Secondary Schools for girls. Are they to be taught the same subjects and taken through the same extensive or intensive course in them as boys or shall there be any difference? There are those who say that no difference at all need exist and it is more or less on this principle that curricula of studies have been designed in England and in America. Of late, however, there has been a change of opinion which is reflected in the following extract taken from a book entitled 'Womanhood and Race-Generation,' written just four years ago by a lady doctor:—

"During the years of childhood, usually until approximately the fourteenth year the boy and girl closely resemble each other in physical, mental and moral endowments; their needs are much the same, and they can be educated together without detriment, indeed, sometimes with marked advantage. During the age of puberty which extends from about 14 to 18 years, the girls' development proceeds on different lines from that of her brother. . . . The knowledge has long been growing among the experts of the educational world that the whole ideal of the education of girls was wrong, and that the methods were faulty. The mischief caused by constantly recurring examinations and the trying amount of emulation they involve has slowly forced upon us the conclusion that in order to get the best results in the education and training of adolescent girls a certain power to vary the curriculum is necessary. It is impossible to treat them as though they were machines warranted to turn out work of a certain quality and for a certain length of time. The changes—physical, mental and moral—that occur in young girls are so great, the development of their nature is so rapid, that the ordinary hard and fast rules of school and college are likely to fail in securing the maximum result. This point may be illustrated by the experience of Exercise and Game Mistresses in Sweden, who have long been aware of the fact that although girls up to puberty

enjoy their exercises and profit by them in the same manner as do the boys, yet the time comes when exercises are badly done, and when an ordinary amount of exertion induces an extraordinary amount of fatigue. The consideration that the Swedish teachers have been forced to show to pupils from 14 to 18 years of age is the type of the consideration that will have to be shown on the intellectual side of training. It is not only the delicate, weedy girls, nor is it the dull and backward girls only, who need to have their curriculum specially adapted to them; the feeling of slackness and disability appears to be very general, and it is the rule rather than the exception that the work must be varied with the varying capacity of the pupil."

Continuing the same author says, "To look at the matter from a slightly different point of view, is it a higher aim and a more useful end in life to become a first-rate mathematician, or to hold a doctorate of science, than to be a really adequate and perfectly adapted mother of a family? Great mathematicians, great musicians, and learned doctors of science, are no doubt distinguished and valuable in the special line for which they have qualified themselves, but with the exception of some few men and women of absolute genius, does the human race owe as much to them as it does to the men and the women who have successfully endeavoured to fit themselves for the duties of fatherhood and motherhood, of bread-winner and of house-wife? Far be it from me to disparage learning or to deny that women are as capable as are men of University distinction; I believe that they are equally capable; I believe that their brains are as good and clear; I believe that their application is as assiduous and that their endurance is as strong; but I think that the time is coming in which all these valuable distinctions and degrees will be prized, not as ends in themselves, but as the means whereby untold benefit is to be conferred on the race, and that, especially in the

case of woman, this intellectual power is held in trust to pass on the great gift to the next generation, to her own children should she be so fortunate as to be a mother, to the children of others should that crown of womanhood pass her by."

I make no apology for having made such a long quotation, because it seems to me that it will help us make right ideas on this subject prevail. There is a certain class of people who seem to think that because some of us advocate a course of studies easier than, and different from, that prescribed for men, we are necessarily having a low view of womankind. It is not so at all. Possibly as time advances, the prophecy may come true that 'once the prejudice that constantly suggests sexual consciousness is dead and gone, a stage will come when women will come into their own as higher evolutionary types and men that are unfit for male activities in public life will want to learn cooking.' Till such a state of things becomes general, however, it seems but proper to keep in mind the difference of function in society between man and woman and provide for such distinction in any scheme of studies that we may suggest.

It is interesting in this connection to compare the attitude of Bombay in regard to secondary and higher education of women with that taken up by the members of the Educational Conference that recently sat in Madras to make recommendations on the subject of Female Education. The Presidency of Bombay and particularly the city are generally much ahead of other parts of India in the matter of female education. This is due of course to the example set by the Parsi community there among whom it is rather rare to find many illiterate women. They have assimilated Western learning and Western culture to a much larger extent than other Indian communities and yet the announcement was recently made that considering the injurious physical effects that public

examinations had on the young women that attended Secondary Schools, the Parsi schools would hereafter cease to prepare girls for the Bombay Matriculation examination. And the Bombay Schools Committee that considered the circular letter of Sir Sankaran Nair have, we learn from a telegraphic report published in newspapers, 'in dealing with the classes of institutions for secondary education specially emphasised the urgent need for schools giving a practically useful education for girls whose prime goal is marriage and mistressship of their husbands' household.' (The italics are mine). Madras, on the other hand, is not so far advanced in the matter of secondary education for women as Bombay. There is no class here corresponding to that of the Parsis and what do we find the members of the Female Education Conference say on the subject? In their opinion 'undue emphasis should not be given to training in purely manual and practical arts.' Bombay went in for the same kind of education for her girls as for her boys, found out after some time that it was a mistake and that a special course for women was needed, and is trying to make provision as to that. Madras has not had that experience and so must commit the same mistake as Bombay. Surely there is nothing wrong in making mistakes and then correcting oneself, but it is far better to learn from the experience of others, and profit by it and avoid the mistakes.

I have no hesitation, therefore, in saying that secondary and higher education for girls should be such as to befit them to become enlightened wives and mothers able to manage the affairs of the household decently and well. And in order to that we need only shape the curricula of studies on the lines laid down in Japan where secondary education extends over 4 or 5 years, where all instruction is in and through the vernacular, and where the special course for women consists in the provision made for an intensive study of the vernaculars, for the learning of music, cookery, the care and management of children and nursing the sick and disabled.

And even more than all this is the great question to be answered—how far and to what extent are we going to allow Western influences to invade our homes? The great war that is going on in Europe has disillusioned many people and laid bare the hollowness of the pretensions to culture usually made by our brethren of the West. The startling pictures that we have of the conditions of life in the West and of the lengths to which freedom in social relationships has carried people, there must make us pause before we attempt any wholesale reconstruction of Indian society by letting Western influences invade our homes. 'The percentage of divorces to marriages throughout Germany,' says a writer, 'doubled between 1901 and 1911. During 1912 one marriage in every twenty-five ended in divorce in Prussia. In all Prussian towns the percentage rose to one in eighteen, while in Berlin it rose to one divorce in ten marriages. If the present increase in divorce continues, in 1957 there will be no married persons who have not at some time been divorced except those who have just been wedded. There are 1,50,000 children mostly under 3 years of age orphaned by their parents' divorce, and at the present rate of increase will reach half a million within a few years.' If this is the direct result of 'Kultur' one must strongly resist its introduction into India. Already the cry is that Western education, as it is being imparted to men, 'has destroyed their love of their own literature, the quickening soul of a people, and their delight in their own arts, and worst of all, their repose in their own traditional and national religion. It has brought discontent into every family so far as its baneful influences have reached.' Shall we increase this discontent and accelerate the evil by letting our women also fall victims to our misdirected zeal?

WANTED BETTER RELATIONS BETWEEN PROFESSORS AND STUDENTS.

RECENTLY the question of University education has again and again been brought to the fore and discussed in right earnest by eminent men, who can speak with authority on the subject, like Sir Narayan Chandavarkar, formerly the Vice-Chancellor of the Bombay University. The question is frequently asked: Is University education a failure? And the answer is variously given. Some reply in the affirmative saying that there is something very conservative and persistent in the cast of the Indian mind which is slow to take in ideas of progress, or that there is the general mental inferiority of the Indian. On the other hand, there are others who take quite the contrary view and proclaim our education as a grand success not only in so far as it has raised the intellectual level of the Indians generally but also as having produced some intellectual giants. There is the third class of persons who feel the present system of education defective and hence account for the want of striking results. There are those, again, who, while admitting that the Universities have not achieved much are inclined to explain it away by saying that the system of education has been introduced into India only fifty years ago and, it is therefore, improper to estimate the value by a comparison of our results with those of foreign Universities established centuries ago. Keeping myself away from this much controverted subject I may hasten to state that I feel that there is a defect in our system of education as there is also the fault of the persons entrusted with the work of imparting education. I have chosen to dwell upon the latter aspect of this question in this article.

As regards the education imparted in the High Schools I shall satisfy myself by making a general observation that the teachers in the

higher standards should come in greater contact with their students to guide them in their studies, as also to indicate the lines on which their thinking should proceed. But the more important part of University education is that imparted in the colleges, particularly, the Arts Colleges. It is, therefore, of vital importance that those to whom falls the work of imparting liberal education must be persons able to perform their functions properly and keenly alive to their sense of duty and the responsibility of their position. It is not within the province of this article to dwell upon the neglect of duty not unfrequently noticeable on the part of professors. That will be a different subject. We are only concerned with the relations between professors and students as they should exist.

It will not be a surprise to any one if I say that very frequently the professor is found to be nothing more than a High School teacher except that he gets a higher salary. There ought to be always a marked distinction between a school and a college student. The student of the college has received some culture which enables him to understand and grasp things which were unintelligible to him while he was in the school. He has on the whole a wider mental horizon than what it was before. Yet, however, his mind is not completely developed—it is in formation. The importance, therefore, of moulding the formation of his mind in the right direction cannot be exaggerated. And let us now ask the question: How does the college student form his mind? There are only two important factors, viz., the general culture of his mind on account of the class studies and his surroundings. It is true there are students who supplement their knowledge by reading books other than those prescribed. But this is not a large class, and even if it be one the student who goes on reading without guidance derives but little profit. Sometimes a student may even fall upon a wrong set of books which would do him more

harm than good. Then, among the surroundings, there are usually the old-notioned parents and relations at home, and, outside, there are his student-friends with ideas in their mind as good as his own. Where is that factor then which can raise up the intellectual level of the student? It is submitted that it is only the professors who should perform the arduous task. Let every professor come in frequent contact with his students individually and guide them on the right path in matters of thinking, reading and action. The professor who comes to the class-room with the full dignity of his position and works out examples of Algebra or teaches Milton for an hour and goes away can hardly leave impressions on the minds of his students beyond those relating to the studies. But there are questions, intellectual, religious, social, national, scientific and others which a young man has to face and which he must thoroughly tackle if he wishes to make a successful dash into the world. Therefore, those notions which a student has imbibed from his surroundings and other sources have to be superseded or sharpened or modified or developed as the case may be; otherwise they will remain half-chewed and half-digested for ever. It is clear, therefore, that the value of a free social intercourse between professors and students can never be over-estimated. The effect produced upon the mind of a young man by the personal influence of a professor is bound to be tremendous. The student naturally looks up to the professor with reverence and his words, therefore, weigh with him. It is only by a free social intercourse that a student's wit can get sharpened, intelligence developed and his knowledge and experience increased. Let the professors invite batches of his students and chat with them on divers subjects. In this way the student will learn something useful to him in the world, thus he will add to his ideas, thus will he better his nature and temperament, and thus will he perfect his character. His mind's

vision will become broader and his thinking will assume a healthier tone. The usual timidity of the Indian student will give place to well-directed boldness. He will learn to have better confidence in himself and not be bewildered by things which are usual. This is no exaggeration. The difference in the results in the Western countries and those in India can be partly accounted for by this difference of personal influence. There is not to be found here that zeal and burning enthusiasm on the part of the student for his professors, college or the University as one finds it in the West. The student hardly cares to see his professors after he has left them; nor are the professors anxious to see him.

I am told that in America there is a University-day when students, past and present, and all the professors meet and mix together with the distinctive flags of their respective Universities in their hands and make a merry day. Some past students even sixty years old also attend and take an active part in enjoying the day and dance about! This is how a student is bound to his college, professors and University—result of hearty intimate relations between the teachers and the taught. Very little of this is noticed here, and no wonder. A professor here does not know his students even by name. He cannot even recognise them if he sees them outside the class-room. The professors and students do not see each other except in the class-room. The student has consequently learnt to look upon his professor as a somewhat frightful object which cannot be easily approached. This state of things urgently requires to be mended. Let there be a "feast of reason and the flow of soul" between the professors and the students. A better conception of life and the world will surely tend to more satisfactory results of education—more intellectual giants will be produced and more leaders of men furnished.

CHANDULAL M. DOCTOR.

THE REVIVAL OF VERNACULAR LANGUAGES.

BEFORE I begin to discuss why it is necessary to introduce vernacular instruction in schools and colleges, I will attempt to picture the present state of the vernaculars in our country. That our vernaculars have come to occupy a secondary place is noticed by all, and people are very forward in bringing proposals to revive it to their old position.

What then is their exact position? In every respect the position of our vernaculars bears full comparison with that of English in the 12th and 13th centuries. The Norman conquest of England though it did not materially affect the constitutional and social sides of the country, resulted in the almost supersession of Norman-French over the English language. The court language, the languages of the aristocracy and the clergy became Norman-French. For some time Norman-French did so much predominate that it almost threatened with extinction Anglo-Saxon. Our vernaculars are in the very same position to-day. The court language has been practically established to be English since the time of Macaulay. English is becoming the fashionable language of our aristocracy; it has come to be our commercial language; it has taken a large place in our correspondence. It is even dangerously becoming the language of our girls. In the Presidency towns one can almost say that English is the universal language. The only field which the all-predominating English has not affected to a great extent is perhaps the religious one. Vernaculars then have come to be the language of our agriculturists, artisans and labourers and of the remote parts that are not closely connected with our towns by railways.

There are three forces that are at work in the rapid spreading of English in our country, in addition to the influences to which we are subject as students in schools and colleges. The wealth and position of our higher classes enable them to

associate with our English brethren on terms of equality and cordiality. This free association tempts them to adopt English as their language as easily as they borrow their civilization. The lower classes because of their poverty sell themselves as servants or slaves to the English rulers and residents and this contact is responsible for the adopting of English by them. These two forces work in opposite directions and easily convert the whole land into an English-speaking nation. The third source is that our students who study in the western Universities finish their education there and when they return home they look with contempt on the indigenous civilization and languages and hence attempt to anglicise the members of their own families. These are some of the very important forces that are responsible for the present state of our vernaculars.

Our University was not slow in the recognition of the indifference and apathy of the so-called cultured public towards the vernaculars and at one stroke it has practically removed all the vernaculars with the classical languages out of the curriculum of the higher examinations. This action of the university marks the point of culmination in the subordination of our vernaculars to English. Reaction has at once set in. The attention of the public is drawn to it and people, assembled in different places, complained of the action of the University and began to see the real insignificance of the vernaculars and the predominance of English in every field.

This discontent of the people was heard by a few of our sympathetic leaders and one of them the Hon'ble Ramarayaningar has moved a resolution in the Imperial Legislative Council in the Delhi Session of 1913 to adopt vernaculars as the media of instruction in schools and colleges. Though his bill met with a very strong opposition, it has served a very useful purpose. The failure of the bill and the opposition it met with in the hands of so many members including Saradranath Banerjee, broadened and

deepened the attention of the whole public and after this resolution, the press and the platform agitate very strongly for the revival of vernaculars, and the University is very active in the suggestions of the solutions of this problem. While our University backed by the English-inclined public went to the extreme of removing all the vernaculars out of the course, the public go to the other extreme of suggesting the desirability of imparting instruction on all the information-giving subjects in the vernaculars only. Thus the one extreme is here answered by the other extreme.

I will now consider for a while whether this movement would realise its object. Will it be possible for the vernaculars to take the place of English and can the English language be subordinated to the vernaculars?

A study of the history of the languages of the different nations of the world cannot fail to impress on us the general principle, namely, that the conquering nation imposes on the conquered, in addition to its own civilization, its very language. But the statement is to be qualified by saying that the degree of the imposition of the conquering language depends upon the completeness and the effectiveness of the conquest. Examples are not at all wanting to prove the statement. But I illustrate what I mean from a country that is of immediate concern to us.

The Teutonic conquest of England in the 5th and 6th centuries ousted the Celtic language that was prevalent before this event in England and substituted wholesale the Anglo-Saxon language. Here the conquest was complete and hence it was possible for the invaders to impose their language so effectively that the Celtic language was completely obliterated. After a period of five centuries came the Norman conquest which in its turn, attempted to establish Norman as the language of its people but owing to the fact that the conquest was not very complete and the conquerors formed comparatively a small number,

this supersession of Norman-French over Anglo-Saxon was only temporarily established; or in the middle of the 15th century after the domination of this new language in England for full three centuries, Anglo-Saxon or the English language of Chaucer asserted its preeminence, due to the popular movements of the times and banished the Norman-French out of England.

To illustrate the same process in a very recent time I will take the example of Poland. It was a mighty power in Europe from the middle of the 14th to the 18th century with a fully-developed language of its own. In the first quarter of the last century it was given over to Russia and Nicholas Alexander in the middle of the last century on a certain pretext so completely conquered every part of it and annexed it so thoroughly to Russia that its very language was completely merged into the Russian.

I don't like to multiply the number of my examples; but the above ones are enough to convince anyone of the truth of my statement. Of course there are exceptions to this general observation, but they are of rare occurrences. This exceptional case was seen in the conquests of the Roman Empire by the Barbarian races, namely, the Goths, the Vandals, and the Huns. None of these invading tribes sought to impose their languages after the complete conquests of the empire but they themselves adopted the language and the civilization of the conquered, for whom they had the highest amount of reverence. This peculiar feature is generally absent in several of the conquests. Such exceptional cases go to prove the general truth that is involved in the statement that the conquering country imposes or tries to impose its own language over the conquered.

The problem of reviving vernaculars in our country in the face of such a discouraging general truth appears rather hard; but we should on no account relax our efforts nor should

we grow despondent in our hopes of realising it. For if only our agitation is strong and general and if a large number of people feel the dangerous position of the vernaculars, surely our efforts will be crowned with complete success. The example of the attempts of England in the 15th century is before us. Anglo-Saxon was for three centuries completely dead and confined to a few agriculturists and servants. From such a state it revived in the middle of the century and revived so powerfully, and flourished so well, that it completely disestablished the Norman language and took its place in all fields. Again the case of Poland provides an additional example. The Polish language as I have said before was almost obliterated. But the Poles never forgot the glorious position of their empire or language and still to this very day their attempts to have their own Empire and national language are well directed and are about to bear fruit or bearing fruit practically. The above two examples will give us much hope in the attempts of reviving vernaculars.

Some practical objections are raised against the introduction of vernaculars in our schools, some of them are (1) that the text-books in vernaculars are not very many, (2) that the number of capable professors and teachers to elucidate sciences in vernaculars is not encouraging, and (3) that our vernaculars are wanting in words and terminologies to express new thoughts and convey scientific terms.

The first two objections could be easily answered by saying that if necessity arises, means will be found to meet them. The lack of a sufficient number of teachers and books has been due to the fact that they are not of much service. When Indians are available to write books in foreign languages and teach very efficiently foreign tongues, it is meaningless to say that they are wanting to do them both in their own tongues. The objections are not sound and if such difficulties do exist at all, they

are very temporary in nature. Within the last half-a-dozen years a number of books in the vernaculars have come to be written. In addition to the old stereo-typed volumes of poetry and prose, new books have been added to the vernacular literature. The vernacular languages have all undergone a thorough revolution in their styles. There is no longer that rigidity, that elaborateness, that circumlocution, that marked the styles of the vernaculars in the ancient times. The features that characterise the present day vernaculars are simplicity, brevity, preciseness, and above all freedom, to most of which they are indirectly indebted to the English language. It is these new features that enable our modern day authors of vernaculars to write books of all classes so rapidly and easily. The first place among such writers should be given, with no hesitation whatever, to the Bengali poet, Rabindranath Tagore, who has set in the current of modern-day poetry in the Bengali literature. Novels to suit all tastes, romances of different types, and fiction of various grades, are all written in vernaculars.

Books have also come to be written in Tamil and Telugu even in such of the sciences as are deemed hard to be translated into the vernaculars. There are already several good works in both Tamil and Telugu in sciences like botany, zoology and physiology. Very recently there was published an excellent book in Tamil on political economy by the Assistant Professor of the local Presidency College, expressing well all the modern notions of this expanding science. When there are found authors that can write such books, it goes without saying that eminent professors and teachers could be found to teach them well.

There is a good amount of truth in the third objection raised, namely, that the want of a terminology and words of technical and scientific nature is a stumbling block to the introduction of vernaculars in schools and

colleges. This at first is rather threatening, but the analogy of other languages at such critical junctures, will give us a good clue in the present stage of the vernaculars. The English literature when it began to revive in the 15th century laboured under the same difficulties but adopted two courses to meet them. To express new ideas and thoughts that resulted from the contact of the two races it adopted the Norman-French words, and to express scientific terms, it borrowed wholesale from Greek literature. The same course could be well followed in the vernaculars. English words can be adopted to express new ideas and fresh thoughts. This in no way is degrading to the dignity of the vernaculars. Borrowing is a feature of the progressive nature of any language. The English language is one that has borrowed words from all the continental languages and after the conquest of India it is borrowing words even from the Indian languages, such as, catamaran, pandal and mulagatawny. This measure could be well resorted to which will not in any way diminish the importance of the vernaculars.

Again to express scientific terms, Sanskrit words could be adopted. It is admitted by all the eminent specialists in Sanskrit literature like the late Justice Mahmud of the Allahabad High Court, that this language provides words and terms to express all ideas and notions of the different branches of science. While the English language adopted for this purpose, words from Greek literature, it is quite natural that our Indian languages should but resort to Sanskrit only. Is not Sanskrit to our Indian languages as the Greek and Latin are to the European languages? For Sanskrit, Greek and Latin, are all different dialects or branches of the common language, the Indo-Germanic. If the above two methods are followed, then the third objection is fully met.

In this connection it will be of interest to note that with the revival of the vernaculars, Sanskrit

will also revive and flourish. For so closely depends the destiny of one on the other. We see in England as well as in other European countries, some amount of Latin and Greek is imparted to every student in addition to the stock of knowledge which he possesses in his own tongue. There have been organised very strong movements in the go-a-head America, and even in England by eminent scientists like Huxley to oust the study of classical languages but it is of no avail; for it still continues to be studied. Matthew Arnold very intelligently meets the arguments of such organisers and finally concludes that as long as human nature continues to be human, classical languages will continue to be studied. The above remarks of Arnold are applicable even to the case of Sanskrit. A study in the vernaculars alone will not do; it must be closely associated with a study of Sanskrit. As no Englishman will be considered to be cultured till he is grounded at least somewhat in Greek and Latin literatures, so also no Indian can claim to be a fully cultured man till he receives a fair amount of knowledge in Sanskrit. Indian vernaculars, as Pandit Sri Krishna Joshi has observed in his paper read in connection with the Benares Hindu University opening ceremony "must be nourished on their mother's milk, if they are to thrive and grow to a full stature. But if agriculturists, artisans and mechanics must be taught through the vernaculars, the leaders of thought and life and builders of science and literature must be grounded in Sanskrit language and literature and if India is to rise to greatness once more, the characters of our leading men must be built upon the great principles of religion and morality and must be moulded on the models of the great characters of ancient India. It is great men who make great nations. It is great thoughts which make great men and really great thoughts were never conceived and expressed in a foreign language."

It is feared in some quarters that the full

revival of vernaculars may become an obstacle to the growing union of the Empire. A common language is believed to be the first feature of a common nation; if that is absent, in their opinion, no union will be made possible. In India, at any rate, no such thing need be feared. For our common language, we have English which will continue to be the language of one province with the other and of our country with the other countries. The German and Austrian Empires are down to modern times composed of different states wherein are spoken different dialects and still no Empire could boast of such a strong national compact union like the German Empire. Hence the objection raised on this ground and the fear entertained on this behalf appear rather sentimental than reasonable.

One can very well ask what are all these labours and efforts about? Why not leave things to run its own course? Why need we go against the natural course and make it take a particular direction? What are the special advantages that will accrue to the country at large and if there are such advantages at all, are the supposed advantages sufficient to compensate all our efforts? These are questions that will naturally suggest to every one and I will attempt to answer them to the best of my lights.

In the first instance it should be remembered that every language has special merits of its own. It is peculiar to itself and the merit of one cannot be well transported to another either by translation or otherwise without marring its full beauty. The special virtues of the Eastern languages are the captivating music, the rich imagery, and the poetic richness, that are to a little degree seen even in the most poetic styles of English writers like Ruskin and Sir Thomas Browne. Moreover they alone form a fitting medium to express all the spiritual speculations that are in the shapes of the Vedas and the Upanishads that have come down to us from the hoary sages. The death of such languages which may be brought about in

course of time, if not revived by strong popular movements may mean not only a national loss but a general loss to the aggregate literatures of the world. The loss of the Eastern literatures that contain the stored up wisdom of the Indians in all the human activities from the ancient times downwards is no mean loss and could not be recouped by any efforts. This alone is a sufficient reason why we should all organise to revive our mother-tongue but when it is combined with other equally powerful reasons, it makes the case very strong and unshakable.

The substitution of the vernaculars for English would result in the saving up of energy to students and lead them to specialise a large number of subjects in the same time. I will quote here the authority of a few leading men that expressed their opinions on this subject. The first authority is that of Dr. Mackichan, the present Vice-Chancellor of the Bombay University. In the course of a speech he observes "further the study of a variety of subjects through a very imperfectly understood foreign tongue is bound to be a slow, laborious and bewildering process." The second authority to whom I should like to refer is Mr. Lee-Warner. He says "but I trace both these defects, to the absence of sound vernacular curricula." Under the present system a boy is taken from the cradle to the school where before he has an idea of his own which he can adequately express in his native language he is put upon English." The third authority is that of Sir Harold Stuart, who in his recent Convocation Address, remarks "the wonder to me is that not so many fail but so many succeed. For the great majority of you have been compelled to receive your education through the medium of a foreign language. It seems to me very difficult to believe that 24 million Telugus and 18 million Tamils can receive all but the elementary stages of education through the medium of English. Progress in the diffusion of education must be very seriously hampered if all teaching in the higher classes is to be given in a foreign language so much effort is expended on trying to understand the

language of the teacher that there is very little energy left for grasping the substance of the lesson, and such a system of education strikes the lay observer as not only mechanical in methods and results but wasteful of valuable years."

As has been pointed out by all the thoughtful men of our country this revival of the vernaculars is a great step towards the attainment of female education in our lands, the lack of which has been much deplored. It is very cruel on our part to compel our girls to study every thing in English which causes no small amount of mental strain even to our boys. Culture is essential, I can well understand, but why should that culture be conveyed to them by means of a foreign tongue. Women are not meant for hard work, either physical or mental, but at the same time it is highly desirable that they must have culture. This acquisition of culture will be made much easier if it is all imparted in a tongue with which they have been familiar from their younger days.

For the preservation of a distinct Indian nationality that is so much urged for, it is necessary that our Indian vernaculars should be maintained in tact. You cannot be an Indian without knowing your own vernacular. Every nation has its own distinct language. When we give up our Indian languages and take to English as our national language, the first essential characteristic of the nationality disappears. We are no longer an Indian nation with the full connotation of that word 'nation.'

Let me conclude my remarks by recapitulating what I have said. I began with a general description of the present state of the vernaculars. Then I pointed out a general truth that is common to all the languages of the conquered nations which, illustrated from two countries and also sketched forth how if the agitation for this movement is general and national, this rather discouraging truth may begin to disappear. Later on I have pointed out the important practical objections that are directed against this movement and answered them all one by one as far as I can in the present stage. Finally I took notice of the

essential nature of the Sanskrit literature the special merits of the Eastern languages and the advantages that would result if the vernaculars are fully revived.

When I reflect for a moment on the immense interest with which our leaders have begun to work it out, when I consider for a while the popularity that is attached to the movement, and when I think that my countrymen have awakened to the importance of the vernaculars, I cannot but feel certain that this movement would very soon triumph. I see before me English gradually giving place to the vernaculars in one field after another. I see before me in the courts, causes heard and cases argued by the Vakils, in their own vernaculars. I see before me my country becoming full of Sanskrit professors learned in all branches of science. I see before me every Presidency with a provincial parliament of its own after the close of the war where the members elected take a pride in discussing the national concerns in their own vernaculars. I think all these possible and possible at no distant future date.

V. KRISHNAMACHARI.

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THE PROGRESS OF EDUCATION IN THE TANJORE DISTRICT.

THE question of educating the young mind has been the greatest of problems since the dawn of the world and, particularly of late, a great stir has been created in the educational world in India, thanks to the unintentional efforts of Lord Curzon. This is not a question which is to engage the attention of the Imperial Government; of a National Congress or of a Provincial Conference alone; but it is one which affects every one of us vitally and on which every district and every village must bestir themselves. In adjusting the educational machinery set up by the Central Government so as to suit our district or village, we have to take into account the local wants and aspirations as otherwise it may be productive of harm instead of good. Owing to the complexity of the modern civilisation, and the multiplicity of sciences, the problem of education is ever presenting new phases and it never admits of any final solution; so much so, education is a matter for perennial discussion and adjustment. Therefore, it is essential that we must, at least now and then, take stock of our condition and find ways and means for setting our house in order. It is but a truism that, before we adopt any line of progress, we must gauge our present situation so that the line chosen may be one of least resistance and may be in consonance with the progress achieved so far.

It is therefore with great pleasure that I submit to you the few facts and figures that I have been able to gather and, though they will speak for themselves, still I have ventured to offer a few reflections of my own thereon. I may be able to present to you mere dry bones of statistics, but I am sure that you will be able to throw considerable light on them and clothe them with flesh and blood.

Tanjore is but rightly considered to be one of the most progressive districts and surely, it has taken a foremost place, in its fertility,

*A paper read at a meeting of the Local Teachers' Association by N. Kalyanarama Aiyer, B.A., L.T., Mathematics Assistant, The High School, Tiruchchappalli.

educational progress and the roll of illustrious men that it has sent forth into the wide world. As Judges, teachers, administrators and jurists, the Tanjoreans have distinguished themselves and no district can vie with ours, in the number of great men that have proved themselves real gems in the several walks of life. We can, therefore, with pardonable pride, congratulate ourselves upon being natives of this district, having, behind us, a hoary and rich heritage. Even in the matter of English education, our district was the one to realise the advantages of the western culture foremost and it was on the banks of the sacred Cauvery that the then great college of Southern India, the Kumbakonam College often known as the Cambridge of South India, flourished and became the training ground and the *alma-mater* of many famous men whose names have become household words, though the self-same institution has been of late, left in the lurch and is now a wreck of its former self, having lost its ancient splendour, its ancient halo of culture and sanctity. So much about our past glory which is only getting dimmer day by day.

Many of us are inclined to fancy ourselves secure in our haven of ancient celebrity, unaware of the storms gathering round us, only to find ourselves, in course of time, in a sorry plight beyond any hope of recovery. Particularly with us, the Indians, the patriotism often stops short with merely dwelling upon the past glories of our land and our attention becomes too much engrossed in the past to think of the present and the future and make ourselves ready to compete successfully with other nations of the world, when alone we can recover our lost individuality and maintain it. Our pious sentiments and resolutions will be of no avail unless they are translated into actions. Therefore a warning may not be superfluous to the Indians in general and to us, the Tanjoreans in particular, who are apt to be even more indolent and easy-going than the people of any other district, being blessed with mother Cauvery and other natural bounties.

Tanjore is often referred to as one of the most advanced districts, we naturally feel flattered and rest under the convenient

assumption that everything is well with us and that no improvement is needed or even possible, having, as we sometimes foolishly fancy, already attained perfection. But those who have a deeper insight and who have been closely watching the educational movements in other districts, provinces and Native States, it will be readily manifest that we are, at least in certain lines of progress, lagging behind and we are, by our own folly and inertness, losing the position won for us, by our illustrious ancestors; it will also be clear that the apparent progress to be seen is after all only lob-sided, lacking in harmony, as it does not pervade all the departments of life. To make the statement explicit, I may state that the industrial education and the female education have suffered a good deal while, in the matter of literary education of the boys, we may be said to have made some substantial progress. The subjoined facts based upon official statistics for the year 1914-15 will, I think, bear ample testimony to these statements.

The number of institutions of all grades, both public and private, rose in 1914-15, by 2.7%, while the increase in the province was 3.4%; but it is gratifying to note the increase in the number of scholars during the year under report in our district was 7.7% as against 5.1% in the province. It may also be observed that we have a school for every 1057 inhabitants, the corresponding figure for the province being 1224. The proportion of scholars to the total population is 4.5% in our district, as against 3.7 in the province, while it is more than 5 in Malabar and Tinnevely. Thus, from the point of view of spread of mass education, we cannot claim the foremost place.

The percentage of male scholars to the male population of school-age is 51.8% during the year under reference, showing an increase of 20% during the year while the corresponding figures for the Presidency are 40.8 and 4.5; so, we are distinctly above the average in point of the education of the males. The percentage of female scholars to the female population of school-age for the year under report is 10.0, the increase being 7.5% while these figures for the province are

respectively 9.4 and 7.0. So, with respect to the female education, we have been able only to work up to the Presidency average and evidently there are many districts which beat Tanjore and show a brighter record in this respect. While the increase in the number of male scholars is as much as 20% (i.e.) 4 times the increase in the Presidency, that, in the strength of the female scholars, is only 7.5% which is only a little in excess of the Presidency average. This unmistakably evidences the great disparity between the rates of progress of education among our boys and girls. The gulf between the boys and girls in point of enlightenment already too wide is getting only wider which is really an undesirable feature, deserving our immediate attention. From the figures quoted above, you will note that nearly 50% of the boys of school-age and 90% of the girls are without any kind of instruction at all. To one who knows nothing about the state of education in other parts of the world, this may not cause any surprise and may only appear to be a commonplace thing; but to one who is conversant with the educational advancement of the other civilized countries of the world, these figures will indeed be shocking. If 50% of the boys and most of the girls are thus reared up in dense ignorance, is it a wonder that so much of misery, ignorance, and poverty stares us in our face wherever we may cast our eyes?

ELEMENTARY EDUCATION FOR BOYS.

The percentage of male pupils in Elementary Schools to the male population of school-age rose from 31.9 in 1913-14 to 34.1 in 1914-15, showing an increase of 7 per cent.; while, for the province, the corresponding percentage was only 32.7 which represents an increase of 5% over that of the former year. Though we are thus above the Presidency average, it must be borne in mind that the districts of Malabar, Tinnevely, Nilgiris and Guntur excel our district, the figure for Nilgiris being as high as 50.2 and that for Tinnevely, 48.5.

ELEMENTARY SCHOOLS OF VARIOUS GRADES.

The very expression elementary school is of recent origin at least in our country and

is to be traced to the genius of Lord Curzon who it was that drew that mysterious line of demarcation between elementary and secondary education, which even the very gods who have been chosen to administer the new code have not been able to expound. In our school days, we had only primary schools, in the place of these elementary schools, containing classes up to the fourth standard. Now, we have, in elementary schools, classes ranging from the first three classes up to seven. A glance at the number of elementary schools of various grades that we have in our district at present, will enable us to gauge the relative popularity of these institutions. Of the 1427 elementary schools for boys that we have, 9 contain standards above the fourth, 274, up to the fourth and including it and 1144, with standards 1, 2, and 3; the first grade of elementary schools contain only 1456 pupils out of a total of 45,480; that is to say, the elementary schools with standards above the fourth can hardly claim more than 7% of the total number of elementary schools and 8% of the total strength of such schools. Therefore it is clear that the schools have not been a success or have not met a decided want. This may be due to the fact that in the constitution of these schools, the wants and conditions of the locality have not been taken into account and the people have not, consequently, been able to appreciate them. Very often the curriculum adopted in these schools, is but a poor imitation of that of the secondary schools and the agricultural and the industrial aspects of education which are the more important ones for the rural population are neglected. The disparity between the number of elementary schools with standards up to the fourth and the number of schools with only the first three standards is also noteworthy, there being five times as many of the second kind as of the first. This is, as we all know, mainly owing to the differential treatment accorded to them, in the matter of grant.

Distribution of cost of the public elementary schools for boys in the district and in the Presidency:—

	Per cent. in District.	Per cent. in Province.
Government grant	23	30
Local Fund	39	37
Municipal	8	6
Fees	20	13
Other sources	10	14
	100	100

ELEMENTARY EDUCATION OF THE GIRLS.

The percentage of the girls in elementary schools to the female population of school-age rose from 7.5 in 1913-14 to 8.1 in 1914-15, the corresponding figures for the province being 7.9 and 8.4; this works out an increase of 8% for the district, as against 6.3% in the province. The proportion of female scholars to the female population of school-age is greater in Madras, Kistna, Nilgiris, Guntur, Malabar, Tinnevely, Nellore and South Canara. Malabar shows an increase of 12% and in Kistna, out of 100 girls of school-age, as many as 18 receive instruction. These facts reveal to us the disquieting condition of our district in this matter. We have about 72 public elementary schools for girls of which 28 are first-grade schools. The average strength of a school is 111, as against 79 in the presidency which indicates that sufficient provision has not been made for even the small number of girl pupils we have and we can very well afford to have more schools even with the present strength. So, it becomes the duty of us, educated men, to start as many girl schools as we can, whenever facilities offer themselves;

Extension of Elementary Education:

Out of 428 villages with a population of more than 2000,	15 have no schools
" 388 " " 2,000 to 1,000	75 "
" 244 " " 1,000 to 500	165 "
" 428 " " 500 to 200	202 "
" 428 " " less than 200	422 "

(i.e.) in all, out of 1486 villages, 879 have no schools, public or private. This is not a very agreeable state of things, though we may compare favourably with the Presidency in which 68% of the villages have no schools. 184 villages with a population of more than

1,000 have not been provided with an Elementary Board or Aided School.

PART-TIME AND NIGHT SCHOOLS.

It is a well-known fact that in our country, poverty is a rule and bounty is an exception; many parents out of sheer force of circumstances and pinch of hunger are constrained to make their children work for their daily bread from dewy morn to rosy eve and they cannot afford to send their sons to school during the day-time and especially during the agricultural seasons they are obliged to keep their children away from the schools. Therefore the only means of enlightenment to the children of the poorer and labouring classes is through night schools and part-time schools. The problem of mass-education will be nearer its solution, if the educated men will interest themselves in such schools, at least out of pity for their less educated brethren. By means of such schools, there will be engendered a greater sympathy between the so-called educated classes and the uneducated section of the population and there will be less chance of the latter misunderstanding the well-intentioned actions of the former. The problems of sanitation and social reform can be tackled more easily and with greater success by means of this. The importance of this side of promoting mass-education cannot be over-estimated; but it is unfortunate to note that in this most important branch, we have been woefully negligent having only 12 out of 471 part-time schools and 12 out of 427 night schools in the Presidency, hardly 3% of such schools in the province, while Chingelput, a district smaller in area and more backward in every other respect has, to its credit, as many as 89 part-time schools and 64 night schools and it occupies the first place in the province. It may be observed that, in this respect, the Tamil districts are worse than the Andhra districts where evidently there is a greater sense of national consciousness. We, the educated section of the population must be really ashamed of it and at least now we must wake up to the situation and do something to keep up our self-respect.

PUBLIC SECONDARY SCHOOLS FOR BOYS.

There are 32 secondary schools, 16 complete and 16 incomplete schools. Of the 16 complete High Schools, 1 is Municipal, 1 is Local Fund, 4 Mission and 10 non-Mission; of the 16 incomplete secondary schools, 3 are Local Fund, 3 Mission and 10 non-Mission. Altogether private Indian agencies maintain 20 secondary schools while the Christian Mission support only 7 schools. We must make it a point not to send our children to the Christian Mission schools, when a decent non-Mission institution is available in the same place. The baneful effects of placing our children under the Mission influence in their plastic stage of life are too patent to require any comment and therefore the favoured treatment of the Hindu institutions on our part is a duty which we owe to ourselves and to our country and which we must not think lightly of; for otherwise we would be digging our own graves.

STRENGTH OF THE VARIOUS FORMS AND CLASSES IN ALL THE HIGH SCHOOLS PUT TOGETHER.

Out of a total of 12,800 pupils in the public secondary schools, the three highest forms contain only about 2000 pupils, the four classes from the 4th standard up to the 3rd form contain about 7200, and the lowest three classes only 3686. We have, in the 4 middle classes, more than thrice the strength in the three highest forms and in the usual course, one would expect, in the lowest three standards three times as many pupils as in the middle classes, i.e. about 21,000; but on the other hand, we have only 3700 pupils. This abnormal fall of strength in these classes bears ample testimony to the unpopularity of these classes attached to the secondary schools; of course the most potent reason is to be sought for in the prohibitive and exorbitant rate of fees levied in these schools, when compared with the fees charged for the corresponding classes in the elementary schools though the instruction does not materially differ.

The following statistics may interest you in this connection and throw additional light on the question of unpopularity of the three lowest standards in the secondary schools.

All the 32 schools have no infant classes; 21 have classes beginning from the 2nd standard; 10 begin from the 3rd standard and 2 schools have classes beginning from the 4th standard only. The few schools that have opened classes below the 4th have evidently done so at a great hardship and financial loss. Even in towns, where naturally there may be supposed to be a large demand for secondary education, the lowest standards in the secondary schools are generally of poor strength and still the old state of things has not altered, the elementary schools being for the most part the feeders of these secondary schools, instead of subserving the interests and the wants of the poorer parents in the rural parts, which was, no doubt at first alleged to be their special feature.

The cost of secondary education:—The total expenditure on secondary education is Rs. 356,000, correct to a thousand, of which 60% has been incurred by the aided non-Mission schools.

The distribution of the aggregate cost of secondary education of this district:—Government grant 9%; Local Fund and Municipal 5%; Mission 4%; non-Mission and private sources 8%; fees which contribute most towards the expenditure, 74%.

The distribution of cost as regards the Mission schools:—Mission funds 19%, fees 60%, and Government grant 21%. Compare this with the corresponding figures for the non-Mission aided schools. Fees 79%, Government grant 8%, other sources 13%, while it is 21% as regards the Mission schools.

The exceptional treatment offered to the foreign Mission institutions and the stifling of the indigenous efforts and the consequent starving of these latter institutions will be patent even to a casual reader of these figures. The efforts of the Christian Missionaries whose heart is not in this country, the land of their temporary sojourn, whose main object is proselytism and who they form the root-cause of the many disruptive influences at work in our country are receiving such recognition at the hands of our benign Government while cold water is being thrown upon the honest efforts of the children

of the soil made under insuperable difficulties. This is a matter in which we, secondary schoolmasters, must show a united front, agitate and agitate against this unjust and step-motherly treatment meted out to the indigenous institutions which alone, to speak the truth, are working towards the realization of the ultimate national ideals of the people. 7 Mission secondary schools receive nearly as much Government aid as twenty indigenous institutions educating three times as many pupils as the former; probably the Mission schools may be entitled to a slightly higher rate of grant than the strength of these schools warrants, on account of there being, in them, a larger number of pupils of the so-called backward classes than in the non-Mission aided schools; but this, by itself, cannot account for such a wide difference in treatment and we must persuade the Government to change the Grant-in-Aid Code in such a way that both the classes of schools may, to say the least, be placed on an equal footing.

The average rate of fees per boy in an indigenous institution is Rs. 20, while in the Mission schools it is only Rs. 15. I must not omit to mention a happy feature of our district in this connection, that, in the matter of secondary education for boys, it is one of the most progressive districts in the province, probably the only branch of education where we can boast of a very satisfactory record.

Let us now examine the condition of secondary education of the girls. Tanjore has the good fortune to have only one girls' secondary school out of 38 such schools in the province and that too, a Christian Mission school with the 3rd form as its highest class and with 100 pupils on its rolls. There are 91 girl pupils in the secondary schools intended for boys thus giving a strength of 191 girl pupils undergoing secondary education which is 0.1% of the girls of school-age as against 0.2% in the Presidency. It does little credit to us, the educated community of Tanjore that we have not been able to start and maintain a single girls' secondary school for this district and conduct it on truly national lines and we must blush to note how badly we fare when compared with the province as a whole. Again, for every 81 girls

in our elementary schools, only one pupil undergoes secondary education in our district, while 2 pupils out of the same number find their way to the secondary schools in the province as a whole.

It will also be seen that the boys take to secondary education much more readily and much greater facilities are afforded to them from the fact that, out of 7 boys in the elementary schools, 2 manage to reach the secondary schools while 1 out of 8 girls in the elementary schools, gets the benefit of secondary education. This indifference to secondary education on the part of the girls, is to be attributed mainly to some social and religious causes. However, it must be observed that provision of ampler facilities will considerably accelerate the spread of secondary education even among our girls, conservative as we may be. There may be an apprehension in some quarters that an attempt to impart secondary education must prove a failure owing to caste social prejudices and customs. This is only partly true and we are not justified in pronouncing a scheme, a failure, without ever putting it to the test of experience.

If we only take a retrospective view of the condition of our country, we cannot fail to see what great and momentous changes originally deemed impossible have been wrought and any casual reader of the social and industrial history of our country will surely notice the convulsions and the throbbings and the consequent alterations in the fabric of our society. There was a time we know when Sati was considered as holy and as essential as our Sradha or our daily Sandhyavantham. Now it has become a rare phenomenon and a matter of history.

While a University for Women has been found practicable in a sister province, it cannot be that we are so far behind them that even a secondary school will be a luxury for us. We sincerely believe that a secondary school started experimentally in the district headquarters or in any other important centre is bound to succeed, provided of course the instruction is given on sound lines suited to our girls and the part they have to play in their after-lives.

Lastly, I come to the *collegiate education*. We have only two colleges which contain 442 students as against 18,725 pupils in public secondary schools and the proportion of scholars in our colleges to the scholars in the secondary schools is 1 out of 31 as against 1 out of 15 in the Presidency. This reveals the fact that we have even less facilities for collegiate education than the province as a whole, while, in consideration of the large strength of our secondary schools we should have more colleges than any other district in the province. At present our students go to Trichy, Madras and other places, for their University courses of study, at considerable hardship and expense and are enriching those colleges.

This is a desideratum which requires immediate attention at our hands. It cannot be a difficult task to start a first class national college on the lines of the Pachaiyappa's College, in a district which is often styled the granary of South India and where many rich Mirasdars, Zemindars and retired officials are to be found. More than riches, a band of enthusiastic young men burning with ardour and the intense desire of realizing this noble object is needed. They must go about from place to place, preaching the necessity of a national college in our district and persuade the rich Mirasdars and Zemindars to part with a moiety of their wealth on behalf of this laudable object. Educated young men also must be prepared to serve in the institution in a spirit of self-sacrifice, at least, at the initial stage when funds would be forthcoming tardily, as some men, conservative by nature, will be prepared to advance funds only when the success of the institution is definitely assured. We cannot believe that we are less patriotic than the Andhras, who are supporting an institution truly national, quite unaided by the Government and our brethren in Northern India who, by their undaunted efforts, have made the Benares University an accomplished fact. It is but a legitimate aspiration of ours to have a first-grade college in the historic capital of our district, when we contemplate that a State in America, only as large as our district, has a University of its own.

This report may not have been in a suitable form and may be wanting in fulness and logical sequence and the opinions, lacking as I am in experience, may not be quite sound and relevant. However, there are the hard incontrovertible facts taken from the official statistics which are certainly more telling and effective than any amount of commentary from me. I therefore crave your forgiveness and request you to separate the milk from water like the proverbial swan and to put your own constructions upon the facts presented. There are certain broad features in the report, discernible from the official figures in which, I think, there can be no difference of opinion.

(1) The backward condition of our district with respect to mass education, (2) the absolute necessity and urgency of the light of education being carried to the homes of the poor and destitute children through part-time and night schools, the creation of which is a duty which we, teachers in particular, owe to our countrymen, (3) the utter lack of provision for the elementary and secondary education of our girls and the great disproportion in the matter of expansion of education among our boys and girls which must be held responsible for a good deal of our domestic unhappiness and social evils which if allowed to grow any further, will be productive of grave consequences, (4) more adequate facilities for collegiate instruction, (5) organized agitation against the unjust and step-motherly treatment to the private non-Mission institutions, while fatherly interest is evinced in the case of Mission schools, are some of the points on which we must bestow our attention. Fortunately, we have an organization of teachers in our district, conducted on sound lines and I think we would join that guild in large numbers and agitate through it, for reforms on the lines indicated above.

MANAGEMENT OF SECONDARY SCHOOLS.

IV.

Continued from p. 183, March 1915.

GREAT is the longing to give the results of experience. The greatest number of teachers is engaged in Secondary Education and some in Collegiate. Attention is chiefly paid to what concerns the majority of younger brethren.

We have to consider:—

- (i) Three kinds of Secondary Schools
- (ii) the relation of teachers to them in different stages of their lives; (iii) the relation of management to the public and the staff, and (iv) the need for Governmental action.

KINDS OF SCHOOLS.

Government having given up Zilla Schools and handed them over to Local, Municipal and indigenous bodies, we have—

- (1) Local Board and (2) Municipal Schools,
- (3) (a) Indian indigenous schools or (b) Mission institutions.

Local Boards are under the Act, to consult the Department. Hence, even if Presidents of Local Boards interfere with educational work, it is not easy. Unless the Presidents are too strong for a weak Inspector, departmental advice is generally found to be salutary, though the double government of the Inspector and the Board has its own disadvantage. Service in such institutions is guarded by quasi-governmental control. Tenure of office is certain and treatment gentlemanly.

2. Independence is less in Municipal institutions. Party factions generally exist in Municipalities and to the worst extent in a few localities containing a fairly large number of educated men. Sometimes knee-bending to the Chairman or the stronger party wins prospects.

3. (a) Success in Indian indigenous schools depends upon the teachers' power to adjust themselves to the whims and caprices of private management varying from time to time. It is the kind of service that is least

fitted for tactless men. May I say that straightforward men of honesty and good work are not generally advanced nor is consideration and courteous treatment accorded? Headmasters are mainly responsible for the latter. Enlightened and kind-hearted managers are not wanting who help out of their own resources, besides adorning the Managing Boards. When they give their time, money and intelligence in the cause of education, Principals and Professors or Headmasters and Assistants ought to avoid greater burden on their shoulders.

(b) The object of Mission institutions is directly conversion; 'education' concerns them only to the extent of serving their original purpose. Others than Christians have no right to expect to be kept on when Christians are available. Some managers are candid enough to say so, before non-Christians are entertained. The great example of equal treatment and permanent tenure to all alike is more an exception than the rule. But whatever their motives, Christian agencies have been great promoters of education. While Indian managers are rarely found within the walls of schools or colleges, it must be said to the credit of Mission managers that they daily take part in teaching and management and that they are steadier and more successful in organisation and management.

TEACHERS AND THEIR DIFFERENT STAGES OF EXPERIENCE.

The first ten years are spent in steadying themselves. The second stage of ten years is after they have made a name and when they are invited to take up higher posts. The third stage is when their age, experience and efficiency fit them for responsible places. These cannot be easily got if they have to change from one institution to another. It is then that they must consult their knowing elders or thoughtful gentlemen of experience.

"There is a tide in the affairs of men
Which, taken at the flood, leads on to fortune.
Omitted all the voyage of their life
Is bound in shallows and in miseries."

RELATION OF MANAGEMENT TO THE PUBLIC AND THE STAFF.

Anything of disharmony between the management and the staff should not be

divulged to the learners. In their youthful impulses, respect to teachers is lost and thereby reverence to elders in society. In the interest of future citizenship, no amount of care taken is too much. The matter is worse if any difference between the headmaster and his assistants is known amongst the children. Headmasters of institutions cannot be too patient or tactful in being and seeming to be harmonious. One specially noteworthy incident may be here mentioned. For the last thirty years, anything of difference or of advice for promoting good work in the inner councils of a southern first-grade college and its high school department has never gone beyond the school and college walls. Some Indian managers punish teachers without taking any explanation for the charges brought against them *in camera* to preserve so-called prestige. Punishment is first meted out and the original order next cancelled when the truth is brought to light. They listen to too much of tale-bearing, degrading both the tale-bearer and the hearer. Some Vakil-managers treat teachers as if they were nonentities.

The Hon. Mr. V. S. Srinivasa Sastriar referred at the last Provincial Conference of the South India Teachers' Union to a notorious incident in a Secondary school under enlightened Hindu management. The young of Indian schools should have too far gone in irreverence but for the innate Indian respect to teachers. Under the latest regulations a purely supervisory headmaster is kept. The work is too inadequate for the expenditure. A head is useful if, like the headmaster of an English public school, he is head and shoulders above the staff. Headmasters of this kind have been and are but few. A very short paper is ready to show that an average waste of a decent sum every month is incurred on one of the former class. It may be better utilised in scholarships, equipments and enhanced salaries. Most headmasters are by no means superior to the assistants, the treatment accorded to whom, under the marking system is at least almost unanimously resented. For people not usefully engaged, some work of the opposite character is found. When they have neither culture nor organizing power, the financial burden on the school may be

considerably cut down until we get the right kind of men. But, assistants ought to know that parents of scholars simply trust in the conscience of teachers and that they must therefore exercise patience and self-control.

"Self-reverence, self knowledge, self-control,
These three alone lead to sovereign power."

Inspectors ride rough-shod over the staff not cared for by their own managers. Amongst them are gentlemen of learning and position. Whatever their press of work in other ways, they may be present at the inspection to hear his suggestions, to inform him of what is possible and see how far the staff carries out what is practicable. Headmasters are either too far let alone or too far kept under control. If a cultured class of wealth and willingness to work come into existence, they may provide a manager for each school who can command public respect and confidence and preserve or restore harmony in the school. This sort of improvement is needed only till headmasters similar to those of German Secondary or English Public Schools come into existence. Workers like them alone deserve perfect freedom as sole rulers.

The three aspects of management in relation to supervision, to the work of assistants and to the general efficiency of the country's progress are already on record in three articles contributed to the *Educational Review*—

(1) January 1913; (2) November 1913;
(3) March 1915.

The details given therein are not repeated here. They may be gone through, if not already. It is enough to say that conditions may be laid down for teachers to elect their own representatives on the committees, until their learning, tact and self-sacrifice entitle them to a practical control of secondary education.

Schools binding teachers by written agreements offer the *prima facie* ground for concluding that the management has itself no faith in the public confidence of its stability and soundness. An indigenous or a Missionary institution may be found in which teachers have worked life-long prior to retirement. But such examples are rare. The crowning act of every management should be to secure

permanently the services of the ablest graduates and other grades of teachers as well and the co-operation of both the Government and the public towards its success.

IV. THE NEED FOR GOVERNMENTAL ACTION.

Experience leads us to see that, unless work in non-Governmental institutions can be done by teachers in the spirit of self-sacrifice, public service is the most independent and honourable form by provision for pension and treatment under definite rules. So Government Model Schools are the earliest need after the modern great war is over. Statistics may be given to the contrary; but they do not help us all the way. The safety and the discipline of Government are, after all, the best that have been found during the past quarter of a century. No rhetorical flourish is attempted but a business-like statement of facts and thoughts based thereon.

C. R. SRINIVASA RANGACHARY.

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VERNACULARS AS THE MEDIA OF INSTRUCTION.

IN opposing the resolution of the Hon. Mr. Ramarayaningar, the Hon'ble Mr. Dadhabhai considered the resolution inopportune. The Hon'ble member opposed the resolution and expected others also to do so. If the other objections are answered this objection falls to the ground.

2. The Hon'ble member opposes the resolution for the following reasons:—(a) It will restrict higher education in India and therefore bar all progress in that direction. (b) Past progress is due to English education and it would have been impossible with vernacular education. (c) Sanskrit colleges and madrasas have not produced eminent men and those that are produced are not particularly superior to English graduates. The reply given to (a) and (b) is that English will be compulsory under the proposed scheme and will be as well or even better taught. If a boy answers the Geography question-paper in the vernacular, can anybody believe that the inestimable advantages of English education would at all be affected? The reply to (c) is that particularly brilliant men have chosen better paid education while the few brilliant men took to the indigenous system have no *locus standi* in work-a-day life and they are content to lead saintly lives disregarding all worldly advantages.

3. 'A class of men thoroughly grounded in European science, arts, and philosophy should be created in India who should serve as the communicating medium of western culture to the general population.' 'We have had such a class and they have spread western ideas to all except the very lowest and also enriched vernacular literature and journalism.'

Reply. We have certainly created a class who know something of western culture, but do they form as good a communicating medium as they should? In the matter of English dress or general behaviour like inter-dining they may set an example, but do their closest relatives and friends (not English educated) get any of their culture to themselves? The wide and hopeless gulf separating the educated man and his uneducated wife is

known to all here in South India, and it may be equally the case all over India; and if a man's culture cannot reach his wife, pray whom then can it reach? The Hon'ble member says—The greatest Bengalee poets were English scholars. None the less would they have been that for learning and getting their knowledge of history and geography through Bengalee instead of through English. "It was because we were taught in our own language that our minds quickened" says the greatest poet of Bengal. After explaining the necessity of the Vernacular language being the medium of instruction, Dr. Rabindranath Tagore concludes "while all around was the cry for English teaching, my third brother was brave enough to keep us to our Bengalee course. To him in Heaven my grateful reverence."

4. English education has produced eminent men like Swami Vivekananda, Ranade, Madhava Rao, Bose, Gokhale and Professor Bose. Would it have failed to produce them if Gokhale had learnt his history originally in Marathi and if Professor Bose was first initiated into the mysteries of scientific experiments by explanations couched in Bengalee? It must be borne in mind that the reform will retain English not only compulsorily in High Schools but also as the medium of study in colleges—for entrance to the college is restricted to men possessing a sufficient knowledge of English. In school the boy learns English and some subjects. When he leaves school, the boy must know sufficient English to follow expositions in that language; then only in the college will he be fit to attend the lectures and follow them usefully.

5. The Hon'ble member says—"A thorough knowledge of English is essential to us." Quite so. This is mainly addressed to the people—to Indians. It is a sincere and passionate appeal to them to see what is good for them and to have it. But is an imperfect skipping through other subjects equally essential in High schools? If not, let us have English and let us have the other subjects too. Fewer of the latter, if need be, but sincerely taught. "It is not conversational English that is required but a scholarly knowledge." We can have it only in colleges

and we will in the proposed system too have it there. How are correct idiom and pronunciation to be learnt by the boys.....? By taking away from them the chance of learning wrong idioms from teachers not specially trained to teach English and chiefly by restraining them from the compulsory use of English with disastrous results in history, geography, science, &c. "English lessons must be in English." That is just what every body says. There is no difference of opinion on the point. Vernacular lessons ought to be *pari passu* in vernacular and history lessons in the language in which the boy thinks. If this principle is conceded lessons even in aerial navigation if need be can be given in the vernaculars. "The whole point is that to ensure successful competition in Government service the youth must have a thorough grounding in English from his early boyhood." Quite so, let him have it, but should he learn absolutely nothing else? Apparently the Hon'ble member would be much pleased if the first hisping of every child should be in English and to this purpose would advise all parents to avoid all vernacular conversation at home in the presence of children till they should be at least, say ten years old. And all this—for the sake of Government service—the be-all and the end-all of an Indian's existence. After understanding this, we need not wonder that the educated Indian's love of Government service is always cast in his face. From his birth onwards he tries to learn English, sacrificing his mother tongue and all general knowledge. Then if he fails in some examination he gets absolutely nothing for all his pains and sacrifices and if he passes all the examinations he comes to find only that there are ever so many more candidates for Government service than posts vacant for them. What has the Hon'ble member to say to such a candidate? Perhaps the advice would be the candidate should have studied better and come out at the top of the list. If all could come out at the top. It is not as if all posts are open to free competition by Indians, Eurasians and Europeans. Then one can understand the Hon'ble member's appeal to Indians to be the equal of the others in the knowledge of English. It is well known that Indians always come out at the top and

the appointment of a large number of Europeans and Eurasians is not due to their having a better knowledge of English composition but in spite of their possessing an inferior knowledge; they are appointed chiefly that their community may be sufficiently represented in the public service. The truth is that the system of attaching supreme importance to English alone was started at a time when few people knew English and there was a great demand for them. But now the few unproductive fields of labour suitable for such persons are all overstocked and further sacrifice of real and general knowledge can only lead to waste of intellect and energy and a further increase of the present discontent among English educated classes of Indians. It must be made public that the discontent proceeding from those who are turned out from high schools as useless is the greatest menace to the stability of Government and hence there is immediate necessity for turning every member of the community into a useful unit of the society. And, after all, the present proposal is not at all of the sweeping nature postulated by the Hon. Mr. Dadhabhoy. The sort of work that he has in mind for the educated classes can only have reference to persons undergoing a college course and this will remain entirely unaffected. In fact the students entering the college under the proposed scheme will be freer of wrong accents and idioms learnt in non-English classes by their premature compulsory attempts at original English composition. Universities can certainly recognize vernacular answer papers in non-language subjects for Matriculates without introducing vernacular languages into their own courses. The Hon'ble member says—"How will it be possible for them to understand English lectures in subjects that they first learnt in Tamil." Assuming for a moment that the Hon'ble member studied no book on philosophy in his college and first made his acquaintance with philosophy through the medium of some translated books, does he think he would be unable to profit by a course of English lectures on philosophy as much as any Eurasian or European equally ignorant of the subject? English learnt as a language will surely enable one to study

English books on History, Philosophy or Science. General subjects once learnt in the vernacular surely need not be unlearnt and separately learnt in English provided the student knows sufficient English. Does the speaker imagine that Indian History as learnt in Tamil by the student is entirely different from the same subject as learnt in English? The brain should store and does store in all useful knowledge—the subject matter and not the words—though, alas, in the present system, as the Hon'ble member sees, the brain is made to store not ideas at all, but mere words—the words of the text-book. If the immature child should study both French and English in the High school and learn History, as he now does, in English, he may not be able to study it in French in college without further preparation. For to him History in English means "cramming English words." History in French means "cramming French words" and the two are surely different. But history taught in the vernacular gives "ideas in history" and these can always be considered in any language sufficiently well known. The Hon'ble member's sincere words in this respect afford perhaps the best proof of the extent to which "education" has been identified in our land with "cramming," as a lamentable result of the present system of trying to teach English language through every subject under the name of teaching such subject. The present system (perhaps like the caste system) had its value once when the teachers knew only English and the students only the vernaculars. But now when all graduates have a good knowledge of English and hence free access to English sources, the system is extremely vicious and tends to retard not only mass education and female education but also the proper education of the very student who will and who expects to pass through the college course.

6 & 7. In the remaining paragraphs the importance and popularity of commencing an early study of English is insisted on. The Hon'ble Mr. Ramasayningar's proposal does not oppose this at all.

S. RAJAGOPALACHARI.

PATNA UNIVERSITY BILL.

The following Bill was introduced in the Indian Legislative Council on the twenty-seventh September, 1916:—

No. 12 OF 1916.

Bill to establish and incorporate a University at Patna.

WHEREAS it is expedient to establish and incorporate a University at Patna, to be known as the Patna University; It is hereby enacted as follows:—

1. (1) This Act may be called the Patna University Act, 1916.

(2) It shall come into force on such date as the Governor-General in Council may, by notification in the Gazette of India, direct.

2. In this Act, unless there is anything repugnant in the subject or context—

"College" means any educational institution admitted to the privileges of the University;

"College of the University" means the Patna College, the Training College for Teachers at Patna, and any other educational institution admitted as a College of the University in accordance with this Act and the Regulations;

"External College" means the Bihar National College, Bankipur, the Greer Bhumihar Brahman College, Muzaffarpore, the Tej Narayan Jubilee College, Bhagalpur, the Ravenshaw College, Cuttack, the St. Columba's College, Hazaribagh, and any other college other than a college of the University;

"Local Government" means the Local Government of Bihar and Orissa;

"Regulations" means the Regulations of the University for the time being in force;

"Senate" means the University Senate;

"Syndicate" means the University Syndicate;

"University staff" means such persons as may be declared by the Regulations to be members of the University staff; and

"University" means the Patna University.

3. (1) The first Chancellor and Vice-Chancellor of the University, and the first members of the Syndicate and

Senate, and all persons who may hereafter become such officers or members, so long as they continue to hold such office or membership, are hereby consti-

tuted a body corporate by the name of the Patna University.

(2) The Patna University shall have perpetual succession and a common seal, and shall sue and be sued by the said name.

(3) The University shall be deemed to have been incorporated for the purposes, among others, of making provision for imparting education, of promoting original research, of examining students and conferring degrees, of admitting educational institutions to its privileges, and of supervising and controlling the administration of colleges of the University in all matters of education and discipline, and of inspecting and supervising external colleges.

4. The following shall be the authorities and officers of the University:—

I.—The Chancellor,

II.—The Vice-Chancellor,

III.—The Syndicate,

IV.—The Senate,

V.—The Registrar, and

VI.—Such other officers and bodies, as may be provided for by the Regulations.

5. (1) The Chancellor shall be the Lieutenant-Governor of Bihar and Orissa for the time being.

(2) The Chancellor shall, by virtue of his office, be the head of the University, and shall, when present, preside at the meetings of Convocation.

(3) Every proposal for the conferment of an honorary degree shall be subject to the confirmation of the Chancellor.

(4) The Chancellor shall finally decide any dispute with regard to the election of any person to be a member of the Syndicate or Senate.

(5) If, in the opinion of the Chancellor, an inquiry into any question connected with the administration of the University is, at any time, expedient, the Chancellor may cause such an inquiry to be made by such persons, and in such manner, as he may direct, and, after considering the result thereof, and ascertaining the views of the Syndicate and of any other authority of the University which he may think fit to consult thereon, he may pass such orders as seem to him to be right and proper, and the same shall be binding upon every authority and officer of the University.

(6) The Chancellor shall nominate, upon the expiration (as hereinafter provided for)—

(a) of the first and each succeeding Syndicate—four persons, of whom not less than two shall be members of the University staff, or of the teaching staff of the colleges, to be members of the next succeeding Syndicate, and

(b) of the first and each succeeding Senate—such of the ordinary Fellows as are not required by this Act to be elected.

6. (1) The Vice-Chancellor shall be a whole-time officer of the University, appointed by the Local Government, and shall hold office for five years from the date of his appointment, on the expiration of which period, he may be re-appointed from time to time, provided that no such re-appointment shall be for a longer period than two years.

(2) The Vice-Chancellor shall be the principal executive officer of the University, and shall, when present, preside at every meeting of the Syndicate or of any other University body (except in the Senate when the Chancellor is present) of which he is a member.

(3) The Vice-Chancellor shall be charged with the due carrying out of the provisions of this Act and of the Regulations.

(4) The Vice-Chancellor shall appoint and control all officers and servants of the University other than the University staff.

(5) The Vice-Chancellor shall have the right of visiting and inspecting the external colleges.

(6) The Vice-Chancellor shall decide finally all matters of discipline in the University, and such matters of discipline in the Colleges of the University as are not delegated to other authorities by the Regulations.

7. (1) The Syndicate shall consist of sixteen members, including the Vice-Chancellor, the Director of Public Instruction in Bihar and Orissa, and the Principal of the Patna College, who shall always be *ex-officio* members thereof.

(2) The ordinary members of the first Syndicate shall be the persons specified in the First Schedule, and shall hold office for such period as may be prescribed by the Regulations.

(3) Upon the expiration of the period of office of the ordinary members of the first Syndicate, the next and every ensuing Syndicate shall include, in addition to the nominated and *ex-officio* members hereinbefore referred to, nine persons to be elected by the Senate from amongst its members, of whom not less than five shall be members of the University staff or of the teaching staff of the colleges of the University.

(4) Subject to the provisions of this Act and the Regulations, the Syndicate shall have the entire management of, and superintendence over, the affairs, concerns and property of the University; shall control the courses of study, the examinations, the qualifications necessary for ordinary degrees, and all matters of education in the colleges of the University, shall be responsible for the supervision and inspection of such matters in the external colleges, and shall regulate the fees to be charged by the University and the colleges.

8. (1) The Senate shall consist of not less than forty nor more than sixty ordinary Fellows in addition to the following *ex-officio* Fellows, namely:—

(i) the Members of the Executive Council of the Lieutenant-Governor of Bihar and Orissa;

(ii) the Chief Justice of the High Court of Judicature at Patna;

(iii) the Bishop of Chota Nagpur;

(iv) the Director of Public Instruction in Bihar and Orissa; and

(v) the Principal of the Patna College and the Principal of the Ravenshaw College, Cuttack.

(2) The ordinary Fellows of the first Senate shall be the persons specified in the Second Schedule, and shall hold office for such period as may be prescribed by the Regulations.

(3) Upon the expiration of the period of office of the first Senate, the next and every ensuing Senate shall include, in addition to the nominated and *ex-officio* Fellows hereinbefore referred to in this Act, four ordinary Fellows elected by the Faculties constituted in accordance with the Regulations, and eight elected by the three foregoing classes of Fellows:

Provided that, from such date as the Chancellor may determine, the number of Fellows to be elected by the first three classes shall be reduced to such

number as he may, from time to time, prescribe, and the balance shall thereafter be elected by the registered graduates of the University.

(4) The Senate may (subject to the confirmation of the Chancellor) authorise the conferring honorary degrees of the University, and may deliberate any question relating to the administration of the University, and come to a resolution thereon. A copy of every such resolution shall be forwarded to, and considered by, the Syndicate, but shall not be binding on that body.

9. (1) No educational institution shall be admitted

to any privileges of the University, unless the following conditions are complied with, namely:—

(a) the admission of the institution to such privileges has, on application made, been recommended by the Syndicate, approved by the Senate, and sanctioned by the Local Government; and

(b) all provisions of the Regulations relating to the admission of educational institutions to such privileges have been complied with.

(2) No educational institution shall be admitted as a college of the University, unless the following conditions are complied with, namely:—

(a) the college buildings are situate within one mile from the Senate House of the University;

(b) all provisions of the Regulations relating to the admission of educational institutions as colleges of the University have been complied with.

(3) No educational institution shall be admitted as an external college, unless the following conditions are complied with, namely:—

(a) the college buildings are situate in one of the following towns, namely:—Muzaffarpore, Bhagalpur, Cuttack, or Hazaribagh;

(b) all provisions of the Regulations relating to the admission of educational institutions as external colleges have been complied with.

10. (1) Any member of the Syndicate may bring forward a proposal that a college be deprived, either in whole or in part, of its privileges,

Exclusion of a college from the privileges of the University.

(2) The Syndicate shall, after affording the governing body of the college all reasonable facilities for stating its objections to the proposal, consider the proposal and transmit a copy of its proceedings, including a copy of any representation which may be made by such governing body thereon, to the Senate.

(3) The Senate shall consider the proposal and transmit a copy of the proceedings of the Syndicate and of its own proceedings to the Local Government.

(4) The Local Government, after such further inquiry, if any, as may appear to it to be necessary, shall pass such orders on the proposal as it thinks fit, and such orders shall be binding on the University and the college.

11. Notwithstanding anything in any other law for the time being in force, no termination of privileges granted by other Universities to colleges in Bihar and Orissa. Council shall, after the commencement of this Act, admit any college to any privileges whatever, and any privileges granted to any college prior to the commencement of this Act, shall be withdrawn on the commencement of this Act.

12. The University staff shall be appointed by the Chancellor on the recommendation of the Syndicate, who shall transmit its recommendations through the Vice-Chancellor:

Provided that this provision shall not apply in the case of the temporary staff paid from the funds of the University, in which case the appointment shall rest with the Syndicate subject to the sanction of the Chancellor.

13. The accounts of the University shall, once at least in every year, and at intervals of not more than fifteen months, be audited by auditors appointed by the Local Government, and a copy of the accounts, together with the auditor's report, shall be submitted to the Governor-General in Council.

14. (1) Subject to the provisions of this Act, the Regulations may provide for all or any of the following matters:—

(a) the duration of the term of office of the ordinary members of the Syndicate and

Senate including that of the first members;

(b) the time and mode of all elections to the Syndicate or the Senate, and the filling of all casual vacancies therein, and all other matters relating thereto;

(c) the constitution, powers and duties of the Faculties or such other bodies, as it may be deemed necessary, from time to time, to appoint;

(d) the conditions of appointment and the powers and duties of the Registrar, Professors or other officers of the University, whether being members of the University staff or not;

(e) the appointment and functions of governing bodies of the colleges;

(f) the admission of educational institutions as colleges, and the withdrawal of privileges from colleges so admitted;

(g) the admission of students to the University and their examination;

(h) the residential arrangements of students of the University;

(i) the appointment and duties of Examiners;

(j) the conferment by the University of degrees, diplomas, certificates and other academic distinctions, and the qualifications for the same;

(k) the withdrawal of degrees, diplomas, certificates and other academic distinctions;

STATEMENT OF OBJECTS AND REASONS.

This Bill is intended to provide the legislative sanction necessary for the constitution of a University at Patna. A scheme for the establishment of such a University was prepared in 1913 by a large local Committee and published for general criticism. This scheme, after being in some respects modified in the light of public criticism, and the views of the Local Government has received the approval of the Secretary of State, and forms the basis of the present Bill.

The University contemplated by the Bill will be primarily a residential and teaching University located at Patna. In view, however, of the existence of Colleges in other parts of the Province, and the local feeling in favour of their retention, it is provided that, in addition to the Colleges at Patna, the University should comprise Colleges situated at four other centres, and the Bihar National College at Benares. The Colleges at Patna, which will be known as Colleges of the University, will be under the direct control of the Syndicate in matters of education, and of a whole-time Vice-Chancellor in matters of discipline, while the other or 'external' Colleges will be subject to general supervision and inspection by the same authorities on lines generally similar to those governing the relation of affiliated Colleges to a University under the Universities Act of 1904.

The constitution of the new University will enable the Province of Bihar and Orissa to obtain a University of its own, and will effect some reduction in the large number of students now under the jurisdiction of the University of Calcutta.

14th Sept. 1916.

Y. N. S. N.

(4) the general discipline and control of the University and of the colleges of the University;

(m) the accounts to be kept and the use to be made of the funds of the University; and

(n) all other matters relating to the administration of the University.

(2) The first Regulations shall be framed by the Local Government. The Senate may, from time to time, make new or additional Regulations, or may amend or repeal the Regulations.

(3) The Syndicate shall have power to draft and propose to the Senate Regulations to be made by the Senate, and it shall be the duty of the Senate to consider the same.

(4) All new Regulations, or additions to the Regulations, or amendments to, or repeals of, the Regulations, shall require the previous sanction of the Local Government, which may, after the opinion of the Syndicate has been taken, sanction, disallow, or remit the same for further consideration.

THE FIRST SCHEDULE.

[See section 7 (2).]

ORDINARY MEMBERS OF THE FIRST SYNDICATE.

THE SECOND SCHEDULE.

[See section 8 (2).]

ORDINARY FELLOWS OF THE FIRST SENATE.

C. SANKARAN NAIR.

NEW POSITION OF INDIAN STUDENTS IN GREAT BRITAIN.

An important change has recently taken place in the position of students of India who choose to avail themselves of the educational facilities provided by the colleges of Oxford and Cambridge. In previous years these students had their interests safeguarded by two local advisers, one at each of the Universities of Oxford and Cambridge, who were in touch with the Indian students' department of the India Office in London, but latterly the functions of these advisers have been taken over by, at Oxford, a delegation of the University authorities, and, at Cambridge, an intercollegiate committee.

The whole question of the position of students from India resident in Great Britain was recently discussed in full detail with a representative of "The Christian Science Monitor," by Mr. C. E. Mallet, the head of the Indian Students' Department of the India Office. Much of the disappointment that is caused among some students after their stay in England is due, in his opinion, to the ambitions which many of them have before they come, ambitions which in some cases are not justified by previous attainments in their own land. Young men, said Mr. Mallet, have come to this country for many years now to study for various callings and to imbibe a knowledge of the customs and traditions of western countries. Some come to study for the legal profession, others to study technical subjects, some in order to obtain admission into the civil service, and others with the aim of obtaining a post such as those for which the Secretary of State for India has the power of nomination. From the very beginning, while there have been many brilliant students among those who come to this country there have undoubtedly been some who have failed to pass their examinations or who have taken an extremely long time to do so. Again, some have failed to attain their object owing to the high standard of the educational tests of this country as compared with those of India. In addition, many parents have not realized the expense of sending a boy to England to be trained for a profession, with the result that boys in some cases have set out with an inadequate financial provision. From these various causes disappointment has arisen, intensified by the fact that what has often been an extreme case of self-sacrifice in financial matters has apparently not met with an adequate recompense.

Two much-debated questions arising from the state of things he had indicated, were touched upon by Mr. Mallet. One was the revision of the rules of the Indian bar so as to avoid the necessity of students having to spend about £1000 on their legal training in England in order to be called to the bar. The other was holding of the examinations for the Indian Civil Service in India itself, simultaneously with the holding of the examinations in England. Regarding the former, Mr. Mallet said that such an alteration of the rules of the Indian bar must presuppose a raising of the standard required at present in that country, a process which he said was already going on. Even then, he thought, in face of the difficulty of imbibing the traditions of legal practice, according to English standards without any sojourn in England itself, there would be opposition not only from members of the English bar, but from those members of the Indian bar who had been called in England. The latter, he pointed out, always took precedence of the native pleader in India, however experienced the latter might be. Dealing with the civil service question Mr. Mallet expressed the opinion that the results of the higher examinations in which students from India were concerned showed that a disappointing proportion of them achieved distinction, especially at Oxford.

Coming to the origin and objects of the department which was his own special care, Mr. Mallet showed how the increase in the number of Indian students at the English Inns and Universities gave rise to important and pressing problems. These young men, he said, come to a country with whose customs and manner of life they are totally unacquainted, and to its chief city, where many attractions are placed before them, and have often not been provided with sufficient means to carry them through, with the result that in the past there have been a few unhappy experiences. When these students began to come in comparatively large numbers of educational institutions found themselves faced with a new set of conditions. A small number of students of another nationality may easily become assimilated in the general life of the community, but a large number tends to lead a separate existence within the body of which it is a part. All these factors combined gave rise to a tendency on the part of some English institutions to restrict the number of Indian students they received.

ed, a policy which they had a right to do if they thought fit. At this point this department was formed to secure greater privileges for students from India, and as a condition of these privileges universities and colleges demanded guarantees when they admitted a new student and sometimes insisted that some person should make himself responsible for him. This led to many parents of students handing over their sons' allowances for administration to this department or to the local adviser attached to the various educational institutions, who were made responsible for the welfare of the students. The number of students in England has increased to about 1,500 in normal times, of whom 50 or 60 are Government scholars and are, therefore, obliged to come under a system which otherwise is quite a voluntary matter.

What the department which acts under Mr. Mallet's control has been able to do for Indian students with respect to their admission to Universities, is indicated by Mr. Mallet's statement that when the war was over and the normal flow of students began again, there would be about 120 places waiting for Indians in the colleges of Cambridge and 70 or 80 in those of Oxford. All the colleges, with the exception of one in each town, have now been induced to admit Indian students. Previously the advisers in touch with the department had done quite effective work on behalf of the students, but order to dispel the remnants of distrust that apparently exists among some students with regard to the proceedings of the department, said Mr. Mallet, arising presumably to a large extent from the action of the Universities themselves, we have taken a step which we hope will dispel the far off official administration and supervision. The two gentlemen who acted as the local advisers of the department at Oxford and Cambridge will now act as Secretaries to, at Oxford, delegation of the University authorities, and at Cambridge, to an intercollegiate committee. Responsibility for these students is now a University matter entirely and has nothing to do with the department, though the Secretary of State will pay the two Universities a grant for the services they are rendering the students and the India Office.

Mr. Mallet proceeded to describe the other branches of the system for looking after the interests of Indian students, namely, the Advisory Committees established in India itself, for the guidance of those who wish to send their sons to England to be edu-

cated. There are Advisory Committees in most provinces, said Mr. Mallet, who are in close touch with the India Office and through that office with the local advisers in England. At first their good offices were regarded with suspicion, but that feeling is disappearing with the knowledge that they are being exceedingly useful. The use of these Committees is quite voluntary, of course, and those for whose benefit they were established may utilize their services or dispense with them just as they think fit. The Students' Department of the India Office keeps the Committees well supplied with pamphlets explaining the probable cost of training in England for the professions that Indian students most commonly adopt, and on the educational steps necessary to reach their goal.

A most important part of the work of the department is the social side whereby students are enabled to mix with English people and acquire a closer understanding of English life. Under this heading many social meetings have been arranged as well as cricket matches and other athletic events. Mr. Mallet emphasized the willingness of English people to make the students welcome during their stay in England, and the success that attended their efforts once the feeling of reserve was broken down. There was, he said, a complete absence of any color prejudice amongst English people.

In past years the bigger proportion of students from India took up the study of law, but the number of those who come for an industrial training is increasing. Much more gratifying results are achieved by this class of students according to Mr. Mallet. The primary object of these men, he resumed, is to obtain a training, and to see the world is therefore not so much in their thoughts. Some come for engineering, and those who have elected to go to the school of technology in connection with the University of Manchester have been very successful. In fact Manchester has been one of the most successful centres in connection with these students. Glasgow, Edinburgh, Leeds, Sheffield, Newcastle and Aberdeen, are also visited by Indian students for industrial training. We have a local adviser at most of these places whose chief function is to help students to get into touch with local industries and to help them to obtain experience in works. We had a good deal of difficulty at first to get these privileges for students, owing to the closeness of certain industries, but the Committee that was formed, of business-

men engaged in those occupations for which students come over, has helped considerably in the matter. Discussing the prospects of students on their return to their native country, Mr. Mallet emphasized the value of a practical training. Many students, he resumed, attach a value to the English degree which is merely social, with the result that the value of the practical training is unduly minimized and disappointment is caused when a big post does not come along worthy of what they consider their qualifications deserve. Another point to be considered too, is that the facilities for the study of civil engineering in this country are not nearly so good as in India itself, where vast enterprises are constantly being undertaken. On the other hand, England provides a better training in other branches, such as electrical engineering. Mr. Mallet expressed his regret that the department had not found it possible to guarantee places for Government scholars on their return, and very often, he added, lack of capital prevented them from utilizing the experience they had gained to the fullest advantage for the benefit of the country to which they returned.

Regarding the future, Mr. Mallet was confident that after the war there would be an influx of students to the United Kingdom, and he had every anticipation that the good feeling and sense of unity between India and other parts of the British empire which had received a tremendous impetus through a common share in the European war, would render it much easier to give assistance to those students who desired help and counsel than it had often been in the past.—*The Christian Science Monitor, Boston, Mass.*—6.9.16.

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CIRCULAR TO LOCAL GOVERNMENTS.

SIMLA, 19th September 1916.

Sir,—In their circular No. 1-8 and 9-10 dated the 3rd January 1910, the Government of India consulted local Governments with reference to the recommendations.

TO BURMA AND THE CENTRAL PROVINCES.

Of the Royal Commission on Decentralisation in India in respect of matters affecting education, and the suggestions of the Commission were subsequently examined by the several local Governments with great care and thoroughness. The consideration of their opinions by the Government of India was delayed owing to the necessity of awaiting the conclusions to be reached on the recommendations of the Commission regarding the general functions of municipal and other local bodies, but on the receipt of orders on these points the opinions of the Government of India on the educational issues were formulated and their conclusions were communicated to the Secretary of State. The orders of the Secretary of State having since been received, the Government of India are now in a position to intimate their wishes in respect of the recommendations made by the Commission. The replies which the Government of India have received serve to show the diversity of conditions in the various provinces to the extent to which educational problems are necessarily influenced by these conditions, and the consequent impossibility of issuing any general orders applicable to all India. This is especially the case when the problems are concerned with the powers of local bodies. The powers which can be placed in the hands of such bodies must necessarily vary with the local conditions, and in most of the matters now under consideration it is impossible to enforce a single rigid system among different provinces or even in different parts of the same province. The orders of the Government of India must therefore necessarily be confined to matters of general principle. It will rest with the local Governments to see that the necessary steps are taken to secure that educational

administration in each province is carried out in accordance with the general principles now put forward; and subject to the observance of these principles the proposals submitted by the various local Governments have the general approval of the Government of India.

LOCAL RECOMMENDATIONS.

2. Before considering the suggestions of the general interest which were put forward by the Decentralisation Commission a brief reference may be made to certain recommendations of local application. The proposal made in paragraph 358 that the province of Burma should have a separate University is one which the Government of India have had under consideration, but on which they are unable at present to pass orders. The suggestion made in paragraph 362 (i) that the Chief Commissioner of the Central Provinces should be authorised to appoint his own Director of Public Instruction is one which has already been adopted. The further recommendation made in paragraph 359 that monastic schools in Burma should be preserved and fostered instead of being neglected by the Education Department is one which the Government of India heartily endorse; and they have recently allotted a grant of Rs. 20,000 per annum for the encouragement of Pali studies in Burma which it is understood will assist the monastic schools in that province.

TEMPORARY VACANCIES IN INDIAN EDUCATIONAL SERVICE.

3. Of the more general recommendations the first to claim notice is that made in paragraph 362 (ii) which is that Provincial Governments should have the power previously resting in the hands of the Secretary of State of temporarily filling vacancies in the Indian Educational Service by gentlemen who are not members of the Provincial or Subordinate services. On this point orders have already been issued in this Department Circular No. 1742-1758, dated the 10th September 1913, under which local Governments are authorised to fill temporary appointments in the Indian Educational Service in any way which may be considered desirable up to a period in each case of six months,

provided that the pay of the officer so appointed is fixed in accordance with the rules in Chapter VI of the Civil Service Regulations, or with the general sanction of the Secretary of State in Council. It is unnecessary, therefore, for the Government of India to deal further with this proposal.

POSITION OF COMMISSIONERS AND COLLECTORS.

4. The next set of recommendations made by the Commission are those which relate to the position of Commissioners and Collectors towards educational institutions and officers. It is proposed in paragraph 488 of the report, that Commissioners should have the power to call for information from Inspectors of Schools, to express views, and to stop any action of the Education Department within their divisions which they consider undesirable. In paragraph 502 it is proposed that every Government college, secondary school, training and technical school should have a Board of Visitors of which the Commissioner, the Collector and the local Sub-Divisional Officer as well as non-officials should always be members, and that no new Government college, secondary school or training or technical school should be started and no alteration should be made in the status of an existing institution without the Commissioner and Collector being consulted. It is further proposed in paragraph 539 that the Collector should always be entitled to call for any information which he thinks fit from any officer of the Education Department and to have such information given to him spontaneously in matters of importance.

The replies of local Governments to show that Commissioners and District Magistrates can, under existing practice, already call for information from educational officers; that there are already facilities for consultation and that important educational schemes are not likely to be initiated without taking the views of executive officers. These arrangements appear to the Government of India to be satisfactory, but they would impress upon local Governments the extreme importance of the recommendations made by the Commission, the advantages of unofficial consultation between executive and educational officers, and the desir-

rability of regarding the Inspector and the District Deputy Inspector as the educational advisers of the Commissioner and District Magistrate respectively. At the same time the Government of India are opposed to any rigid rule whereby a Commissioner can stop action by the Department of Public Instruction as such a rule would tend to substitute official conflict for official co-operation; and by fostering official co-operation it would be possible to render any such procedure superfluous. As regards Committees or Boards of Visitors consisting of officials and non-officials, there is considerable diversity of practice and opinion. In some provinces the system is not considered advisable, in others it is already in force, while in others again it is considered suitable in certain cases but not as a rule for universal observance. The Government of India are not prepared to insist on the introduction of such Committees being made obligatory in provinces such as Madras and Bombay where they were not generally in existence at present. Nor, in provinces such as the Punjab or Burma, where such bodies exist but do not include the executive officers mentioned by the Commission, are the Government of India prepared to insist that such officials should be included in the Committees. At the same time the Government of India wish it to be understood that they consider the system recommended by the Commission to be generally desirable. Such Committees are obligatory for colleges and secondary schools under some of the Universities; and the Government of India approve of the action of the Governments of Bengal and the United Provinces and the late Government of Eastern Bengal and Assam in combining civil officers with non-officials on the Committees of Government institutions and where possible of privately managed institutions also. Certain further detailed proposals are made by the Commission in paragraph 502 of their report regarding the procedure for ensuring that complaints against the management of institutions should reach the higher authorities. But in the opinion of the Government of India any uniform system of procedure in such matters is unnecessary.

CLASSES OF LOCAL AUTHORITIES DEALT WITH.

5. The remainder of the recommendations made by the Commission deal with the relations of local bodies towards education. The local authorities with whom these recommendations are concerned are of two main classes, viz., in urban areas the Municipal bodies; and outside those areas the District Boards, and (where they exist or may be brought into being) the Sub-District Boards and Panchayats. The Government of India in their Resolution Nos. 55-77, dated 28th April 1915, have left it to local Governments to decide whether Sub-District Boards should be constituted wherever they do not already exist and have suggested experiments in the creation of Panchayats subject to the observance of certain principles which they have enunciated. So far as the recommendations of the Commission regarding the treatment of education are concerned, the same general lines have been adopted by the Commission in respect of Municipalities on the one hand and rural (i.e. District and Sub-District) Boards on the other; and two Members of the Commission (footnote to paragraph 754) contemplate the eventual transference to Panchayats of the powers which may be conferred on Sub-District Boards. As Panchayats have hitherto been attempted on a comparatively limited scale, and as there are some provinces with no Sub-District Boards and some with no District Boards, it is impossible to lay down any specific provisions regarding the particular bodies outside municipal areas which shall exercise each class of function in regard to educational administration, and in suggesting the principles to be observed by local authorities outside municipal areas the Government of India desire that their remarks shall be as applicable to such authorities in general, the particular application of these principles, to any special class of authority (District Board, Sub-District Board or Panchayat) being left to the Provincial Government to determine according to local circumstances.

GENERAL PRINCIPLES TO BE OBSERVED.

6. As stated above the attitude of the Commission regarding the control of education is on

the same general lines in respect of all classes of local bodies. Their objects throughout is to give to such bodies a greater share in the control of such classes of education as are entrusted to their care and by so doing to enlist a greater degree of interest and enthusiasm in the educational administration under their charge. They recognised that the majority of educational officers consulted were of opinion that this policy would lead to loss of efficiency but they considered that this view should not prevail against the recognised public policy of educating the people in self-government, and they were further influenced by the consideration that primary education (with which local bodies were chiefly concerned) should be adapted to the needs of the people and that this could best be effected by securing for local bodies more direct responsibility for its evolution and management. This consideration is in accordance with the views already expressed by the Government of India and the Secretary of State and the policy which it represents may be accepted as the guiding principle which, as far as practical conditions permit, should regulate the relations of local bodies towards primary education.

POWERS OF LOCAL BODIES IN RESPECT OF PRIMARY EDUCATION.

7. As will be noted later the recommendations of the Commission are based on the view (with which the Government of India entirely concur) that local bodies should concern themselves mainly if not exclusively, with primary education and in their dealings with primary education the Commission would vest local bodies with very considerable latitude in such matters as the provision of buildings, the hours of attendance, the grant of holidays and of prizes, the levy of fees and the disbursement of grants-in-aid. In most parts of India local bodies are already in possession of fairly wide powers in these respects and where this is not the case the Government of India agree that efforts should be made to evoke the powers of local bodies in primary school ad-

ministration by the withdrawal, wherever reasonably feasible of such restrictions on their action in respect of the abovementioned matters as may be at present imposed by local rules or educational codes. As regards the educational establishments the same principle should be observed as that accepted by the Government of India in their resolution of 28th April 1915 on local self-government policy in respect of local establishments generally, namely, that while such matters as leave, acting and travelling allowances, pensions or provident funds and maximum salaries, should be governed by rules prescribed by the local Governments, the local bodies should have a free hand in the creation and filling up of appointments and in the punishment and dismissal of the occupants. Similar discretion should be allowed (as is already the case in most areas) in respect of the opening and closing of schools, but it should be understood that the Collector should have power to order the opening of new primary schools where it is considered this to be necessary and it will be open to local Governments to require if they so wish, that the closing of a school should be subject to the sanction of the Collector or the Director of Public Instruction.

CURRICULA IN PRIMARY SCHOOLS.

8. The Commission further recommend the exercise by local bodies of a somewhat similar discretion as regards the adoption of curricula in primary schools. The present practice is for the local Government on the advice of the Department of Public Instruction to prescribe the curriculum, and it is understood that a certain measure of choice of subjects is sometimes permitted. The Government of India desire to see this latter practice emphasized and made more general. Course of various kinds may be prescribed by the Department of Public Instruction and the adoption of them with or without any alterations (subject to the intervention of the Collector in cases where considerations other than educational may be involved) may be left entirely to the local

bodies. Text books which are not approved by the Education Department should not be prescribed without the sanction of the Collector, but a free choice should be given for the selection of text books from lists of approved work adopted by the Department, care being taken to prevent too frequent and unnecessary changes.

RESTRICTIONS ON EXPENDITURE BY LOCAL BODIES.

The Commission in dealing with the expenditure of local bodies recommended that they should be given full power to pass the budgets subject to the maintenance of a prescribed minimum balance and the Government of India in their resolution of 28th April 1915 have expressed the view that the present restrictions on the powers of local bodies with regard generally to budget expenditure should be gradually relaxed with due regard to local conditions and requirements. These orders however, special case or educational expenditure and special precautions that the Government of India desire to recommend for general adoption in respect of such expenditure are (a) the condition that grants made to a local body for education are spent on the object for which they are given, and (b) the consequential requirement that the standard of expenditure on primary education previous to the receipt of such grants is not substantially reduced.

10. In the previous paragraphs of this resolution it has been assumed that the educational activities of local bodies should as recommended by the Commission be confined in the main to primary schools, it being open to local bodies to undertake the charge of vernacular middle schools also in cases where their duties in respect of primary education were fully discharged (paragraphs 751 and 820 of the report.) As regard secondary institutions teaching English, the opinion of the Commission was that these should be financed by Government and in view of the fact that, so long as the expenditure on these schools rests with local bodies, these bodies are subjected to much

pressure to divert to the support of these schools the funds intended for primary education, the Government of India have no hesitation in accepting the principle of the Commission's recommendations as correct. They are unable however, in present circumstances to meet the additional expenditure which its general adoption would involve and although it would be possible to meet the object in view by corresponding reduction in the grants made by them for other objects they are unwilling to give occasion to the misconception which the wholesale adoption of such a course would entail. The financial support of secondary schools which are now maintained at the cost of local arrangements to the contrary, be continued for the present on existing lines, but precaution should be taken to restrict by rule any tendency to increase the expenditure of local bodies on secondary schools at the expense of the interests of primary education and when financial conditions permit all such expenditure should be made a charge upon provincial revenues.

11. The Commission have also while maintaining the right of Government departments to inspect and advise (paragraph 803) inspecting establishments, recommended that local bodies should be encouraged to maintain their own inspecting staff for education (paragraphs 753 and 821). The views of the local Governments and the experiences of recent years is against the maintenance of a double staff for inspection: and although there would be no objection to the maintenance of a local staff at the expense of local funds so long as it merely took the place of the existing staff and was subordinated to the Government inspecting agency, the ordinary practice will be that now observed, viz., the retention of the inspecting staff in the pay and under the control of Government.

PRESIDENCY MUNICIPALITIES.

12. There remains one further recommendation of the Commission which relates to Presidency towns only, namely that made in paragraph 874

of the report that the sphere of responsibility of the Presidency Municipalities in regard to education should be determined by local circumstances but that where it is considered expedient that educational institutions should be controlled by Government the Municipality should not contribute there to except as a matter of voluntary agreement. On this point the Government of India do not propose to make any further remarks as the policy thus outlined by the Commission is understood to represent the existing state of affairs in the Presidency Municipalities.

I have the honour to be,
Sir,

Your most obedient servant,

E. D. MACLAGAN,

Secy. to the Govt. of India.—*The Hindu*.

சாணக்ய சாகஸம்.

அல்லது

சந்திரகுப்த சரித்திரம்.

ஸ்ரீமதி வி. பாலம்மாள் அவர்கள் இயற்றப் பட்டது. வினா ரு 1, தபால்சார்க்கு பிரத்தியேகம். வெங்கடேவர் அடியில்கண்ட விவரத்துக்கு எழுதிப் பெற்றதொன்றாம்.

ஸ்ரீமதி வி. பாலம்மாள், "வினோதநயம்" பத்திரிகை, 1916, பெப்ரல் 12, திருவல்லிக்கேணி.

THE UNIVERSITY OF MYSORE. THE FIRST MEETING OF THE SENATE

THURSDAY, 12TH OCTOBER, 1916.

Report of the Registrar.

YOUR HIGHNESS THE MAHARAJA CHANCELLOR,
YOUR HIGHNESS THE PRO CHANCELLOR,
MR. VICE-CHANCELLOR, AND FELLOWS OF THE MYSORE UNIVERSITY:

On this, the occasion of the first meeting of the Senate, I have the honour to submit the following Report on the foundation and working of the University of Mysore up to the present date.

To the Representative Assembly belongs the credit of first giving definite public expression to the wish for a University for Mysore. The question was taken up by the Economic Conference, and in 1913 and 1914 two Educational officers of the State were deputed to foreign countries to make a study of modern University conditions. In July 1914 a Committee consisting of the members of Government, educational and other officers, began its sittings with the object of formulating the fundamental principles of the new University. The result of their labours was submitted to the Government of India, and views were personally exchanged between the Political and Educational officers of the Government and Sir Hugh Daly, the then British Resident in Mysore, and Sir M. Visvesvaraya, the Dewan of Mysore. The Hon'ble Mr. Sharp, Educational Commissioner with the Government of India, drew up a Note embodying certain modifications and suggestions which subsequently found a place in the Draft Scheme drawn up in November 1915. Later, this revised scheme was placed before the Government of India and received their approval. In April 1916 a Committee consisting largely of Educational experts was appointed to take the steps necessary to give effect to the Draft Scheme which meanwhile was published and submitted to the public for suggestions. A Bill to establish and incorporate a University in Mysore was introduced into the Legislative Council on the 29th of June, and after passing the Committee stage, was unanimously passed on the 17th of July, and received the subsequent sanction of His Highness the Maharaja.

As the Academic year began on the 1st of July partial effect was given to the Scheme on that date by the formation of (1) the Second Year Class of the Mysore University, open to students who had passed the Intermediate Arts Examination of the Madras University, and (2) the establishment of Collegiate High School Classes at Mysore, Bangalore and Tumkur, open to students who had passed successfully through the Secondary School Leaving Certificate Course; to Matriculated students of any University and to students who had failed to obtain promotion from the Junior Intermediate Arts Classes. Such students will undergo a year's special training for the University to which they will be admitted on passing the Entrance Examination.

The total number of students studying in the Collegiate High School Entrance Classes is 279. 12 Lecturers with special academic qualifications have been appointed to these classes. The latter will be shortly visited by a University Commission, and thereafter will be periodically visited by Professors nominated by the Council of the University.

The University, for the present, comprises two constituent Colleges, viz., the Maharaja's College at Mysore, the Headquarters of the University, and the Central College at Bangalore. The subjects of instruction and examination, which cover a continuous course of three years for the degree of B.A., come under the heads of (1) Arts, and (2) Sciences. English and a Second Language, viz., either a Vernacular—Kannada, Telugu, Tamil and Hindustani, or Sanskrit, Persian or French are compulsory. Two Optional Subjects are also compulsory; and in Arts which are located in Mysore, these may be chosen from History, Political Science, Two Groups in Philosophy, Sanskrit or Persian. In Sciences, which are located in Bangalore, either Mathematics, Physics and Chemistry, or Zoology, Geology and Botany may be chosen in the First Year, and any two of the subjects studied in the First Year may be taken in the Second and Third Years. There is also a Special Course for the B.Sc. Degree, which entails a smaller amount of English and a correspondingly larger amount of Science than is necessary in the Pass Course.

A Course leading to a Degree in Teaching is to be established in the near future. For the present

no provision is made for degrees or diplomas in Law, Medicine, Engineering, or Commerce. A Scheme of Extension Lectures is in preparation, and the Publication Bureau will commence work as soon as possible.

On July 23rd the Vice-Chancellor and the Council were formally appointed. The Vice-Chancellorship is a full-time office, which, so far, is a unique feature in India. The Council, the executive body of the University, consists of nine members presided over by the Vice-Chancellor. In the first instance the members have been nominated by the Government, and three sittings have been held up to date. Similarly the members of the Senate have been nominated by the Government of His Highness. Boards of Studies have been appointed by the University Council and will be immediately convened.

37 students entered the second year class of the Mysore University at the Central College, Bangalore, and 41 the same class at the Maharaja's College, Mysore. The total strength of the two colleges is 611, and adding to these the 279 students attending the High School Collegiate Classes, there is a total of 890 students under University supervision. A Chair of Philosophy has been founded at Mysore, and a new feature is the appointment of a number of Tutors. In the two constituent Colleges the total number of Professors and Assistant Professors, many of whom have high European qualifications, is 22; Lecturers 3; Tutors and Demonstrators 17; Pandits and Munshis 7. In 1917, both the First Year and the Third Year Classes will be opened, and the Course for the degree of Bachelor will then be fully established.

A special grant of Rs. 20,000 has been sanctioned for the libraries in addition to the annual grant of Rs. 10,000. A sum of 18 lakhs has been set apart for new buildings and extensions for the University. At Mysore the following buildings are being immediately taken in hand:—two lecture theatres to be added to the Maharaja's College, the adaptation of the Jubilee building for the University Library, a new Oriental and Sanskrit Library, new Hostel Blocks, Warden's Quarters, the Union building and a Swimming Bath. Later, Professors' houses, a Gymnasium, Museum and Senate House will be

erected. At Bangalore, the Central College buildings are to be extended, and additional Hostel accommodation provided; a Union building is also to be built at that centre, and, as far as possible, residences for professors will be built in the vicinity of the site of the Central College.

The supervision of the lodging of students, who are not living with their relatives, will be undertaken by the University.

Already the University has aroused interest sufficient to induce the offer of an encouraging number of Endowments, which have been gratefully accepted.

1. Lady Krishna Murti has definitely given Rs. 20,000 for the encouragement of Sanskrit.

2. Mr. D. M. Narasinga Rao, Revenue Secretary, has offered Rs. 7,500 for endowing a Gold Medal for proficiency in Political Economy, and a scholarship for the B.Sc. Course.

3. Mr. Hanumappa has given Rs. 5,000, through Mr. Bowring, the Deputy Commissioner of Kolar.

4. Mr. H. Rangaswamy Iyengar has given Rs. 2,500 for a Gold Medal in memory of his father.

5. Mr. Honnasetty of Mūkahalli has given Rs. 2,000.

6. Mr. K. S. Chennabasappa of Kabbahalli has given Rs. 1,500—both the last two sums being given through Mr. Matthan, Deputy Commissioner, Mysore District.

7. Mr. N. S. Nanjundiah, Assistant Surgeon, Mysore Service, offers Rs. 1,000 for a Gold Medal.

8. Mr. S. Kabboor of Madras offers either a Gold Medal or an annual prize.

Such are our promising First-Fruits!

Florat Universitas Mysorensis!

The Vice-Chancellor's Address.*

MAY IT PLEASE YOUR HIGHNESS:

Your Highness considering it expedient for the better encouragement and organisation of education to establish and incorporate a University, has decreed by Regulation V of the present year that the first Vice-Chancellor and members of the Senate and of the Council, and their successors be constituted a body corporate by the name of the University of Mysore. The Senate so constituted meets for the first time to-day, and it is befitting that Your Highness as the highest controlling authority should open the first session of the assembly in which all the members of the University are called together to take part in the transaction of its business. Your Highness's gracious presence to-day will be great incentive to them to exert themselves for the advancement of its object and the realisation of its ideals. It is a happy augury for the progress and prosperity of this institution that both Your Highness and the Yuvaraja of Mysore should be so intimately associated with its constitution as Chancellor and Pro-Chancellor.

UNIVERSITIES IN INDIA.

It was about three quarters of a century ago that the demand for the creation of Universities was first made in Bengal, and the Bengal Council of Education adopted as its model the newly-incorporated University of London. The proposal was then considered premature; but a dozen years later, when on the eve of the great changes consequent on the Indian Mutiny, the three premier Universities of India were established by Acts of the Supreme Legislature the suggestion was adopted, and the Universities had for their main object the testing of the value of instruction obtained elsewhere rather than imparting instruction themselves. The number of scholars able to receive University training was small and the institutions fitted to train them, few; and the railways had not abridged the distance between the Presidency metropolis and the large interior towns from which pupils could be drawn. The University Commissioners of 1902 were therefore right in reporting that taking all the facts into account

* Address delivered at the First Meeting of the Senate, by H. V. Nanjundayya, M.A., M.L., O.I.E., Vice-Chancellor of the Mysore University on the 12th of October 1914.

they saw no reason to regret the determination at which the Government arrived in 1864.

Yet an examination for appraising the value of the education received is not the most important concern in the career of a student; and there is something amiss in setting it up as the sole or the chief concern of a University which enrolls him for life as one of its proud products. If the University is to justify its claim to be regarded as the *alma mater* of the huge body of its graduates, it should have a larger share in fashioning them than merely putting a cumbersome article of dress on their backs and presenting them with a piece of parchment. This was perceived early in the career of the Universities, and indeed even from the beginning they exerted an indirect influence on the Colleges and High Schools by prescribing courses of studies for the various examinations conducted by them and setting up a standard for examinations. They had the power under the Acts to require every candidate for a degree to present a certificate of having completed the course of instruction prescribed by the University in an authorised institution, and though the power of recognising the institution was vested in the Government, they had an indirect share in determining the character of the staff and equipment of colleges.

In 1902, the Government of India under Lord Curzon appointed the Indian Universities Commission to enquire into the condition and prospects of the Universities established in British India, and to recommend measures as may tend to elevate the standard of University teaching and to promote the advancement of learning. The Indian Universities Act of 1904 is the outcome of the report submitted by them, and the functions of the Universities are comprehensively defined in Section 3, according to which, the University shall be and shall be deemed to be incorporated for the purpose (among others) of making provision for the instruction of students, with power to appoint University professors and lecturers, to hold and manage educational endowments, to erect, equip and maintain libraries, laboratories and museums, to make regulations relating to the residence and conduct of students and to do all acts which tend to the promotion of study and research.

The question was pressed before the Universities Commission whether the burden of our examination system may not be reduced or at least more wisely distributed by encouraging the multiplication of teaching Universities, and the claims of Bangalore (among other cities) were placed before them. But they were not satisfied that any of the centres mentioned could afford an adequate basis for a new University. Suggestions for new Universities at Nagpur, Aligarh and in Burma were dismissed as unpractical. Yet within a few years, we find the Government of India to have declared themselves to be in favour of the formation of smaller Universities, especially of new local teaching and residential Universities, within each of the Provinces in harmony with the best modern opinion as to the right road to educational efficiency. Schemes were prepared for the formation of such Universities at Dacca, Benares, Aligarh, Patna, Nagpur and Rangoon. Thanks to the perseverance and disinterested efforts of its promoters, the University of Benares has been inaugurated under the distinguished patronage of Your Highness as Chancellor and His Highness the Maharaja of Gwalior as Pro-Chancellor. But for the intervention of the colossal struggle into which the Government of His Majesty were driven by the inordinate encroachments and intolerable and unjustifiable pretensions of the enemy, the other Universities would have by this time come into existence.

REASONS FOR A NEW UNIVERSITY.

The Madras University which has had the direction of our University education ever since its foundation, has made large attempts to carry out the schemes enunciated in the reforming Act of 1904 by the institution of University lectures and professorships, by the improvement of its libraries, and by the provision of more definite and stringent rules for affiliation of colleges and by frequent inspections and enforcement of its rules. But the enormous area under its jurisdiction and the distance of many of the affiliated colleges from its seat in the Presidency metropolis, leave its connection with them as slender as before and prevent the students and staff of these institutions from deriving any appreciable benefit from its enlarged activities.

Ours is the first offshoot from the Madras Uni-

versity; and there may be other offshoots in the near future. Travancore is asking for a University which will be associated with the Malayalam country; Hyderabad may have a University with a special side devoted to the advancement of the vernacular and classical languages of the Mussalmans of India; and the Telugu country may come to have its special University. It is therefore no longer necessary to answer the question which has sometimes been put to me, why Mysore should have a University of its own, except by the counter question "Why Mysore should not have its University."

The increased activity of the Madras University as a central governing body has no doubt done much good as already indicated to the colleges of the Presidency metropolis; but its main result so far as the State is concerned is to subject our colleges to a dual control. Such a control when inevitable is of course to be retained. But if it can be avoided, there is no reason for perpetuating it. The primary education is altogether managed within the State; and when the Matriculation Examination of the Madras University was recently replaced by the Secondary School Leaving Certificate system, the Madras University lost the indirect influence it had on the secondary schools. Your Highness's Government after carefully consulting public opinion, and deputing two of its experienced educational officers to visit the more modern Universities and considering their report, came to the conclusion that the time had come for starting a separate independent University for the State.

One other advantage of a local University alone I shall mention, and that is the patriotic sentiment and local attachment that it will call forth. It will create an atmosphere of learning and refinement and stimulate mental alertness. Notwithstanding the generosity of Your Highness's Government—for the institution will long have to be liberally supported if it is to become a worthy shrine of learning in proper proportion to the resources and population of the country,—this University is long likely to remain comparatively poor in resources. We must therefore appeal to the people of the State to give such benefactions as they can, to help its funds. It is only the Calcutta University that has successfully tapped private charity to an appreciable extent in

India. But Mysore is a poor country in comparison and may not be more fortunate in this respect than Madras. But still there are encouraging signs that we may expect to get a fair amount of such help from the prosperous portion of the people. With the example of the large and far-sighted policy of educational expansion of Your Highness, it is expected that substantial aid may be obtained from the benefactions of charitable and public-spirited persons in the State.

EARLY UNIVERSITIES IN EUROPE.

Universities originally arose in Europe in the 13th and 14th centuries. These institutions were at first recognized places of study, national or European, as opposed to local schools. The term university was applied to them in the sense of the Roman Law—meaning a corporation. There were two types of Universities—a corporation of students or a corporation of masters. The University degrees of Master and Doctor originally denoted persons licensed to act as teachers, for teaching had been a monopoly in the Middle Ages. Barons and Bishops both asserted within their jurisdictions their right to appoint teachers and exacted fees for conferring the privilege. At Paris, the schools had grown up under the wing of an episcopal Chancellor who had existed long before the University. He alone could confer the license to teach; on the other hand, the University could and did sometimes 'boycott' any master whom the Chancellor licensed against the wish of his fellow masters. The fight resulted in constant appeals to Rome, and the Popes steadily favoured the cause of the future i.e., of the growing corporation of masters.

The mediæval Universities seem to have obtained their strongest impulse from below, the Italian Universities almost without exception growing out of town schools and owing most of the encouragement to the civic authorities. But gradually the necessity of getting degrees recognised beyond the locality of the small universities gave rise to the general rule that Popes or Emperors alone had the right of creating Universities in the fullest sense, and that no new foundation would be valid without their character.

CONSTITUTION OF THE MYSORE UNIVERSITY.

The original idea of a University was thus any-

thing but that of an examining body merely sitting in judgment over the students who had gained their knowledge elsewhere. The Madras and other Universities of India which started on this basis have, as we have seen, been so largely reformed that they can now no longer be justly regarded as mere examining bodies. The later schemes put forward in British India have gone still further from the original London University model and are intended to be mainly teaching institutions. They were indeed meant to be located in one place and to concentrate all their operations in one large institution or in an associated group of colleges situated within a compact area; but like ourselves, the framers of these schemes had to take note of existing facts and propose to adopt a compromise between the unitary and the affiliating type.

COUNCIL THE EXECUTIVE AUTHORITY.

The original Acts of incorporation of the old Universities vested the whole authority of the University in the Senate; but in practice it was found necessary to confer on a smaller body, the Syndicate, the executive management. However, till the passing of the Act of 1904, the Syndicate had no statutory recognition. In the later proposals for Universities in India, the executive Government is vested in a smaller body and the Vice-Chancellor is made the chief executive officer, and this principle has been adopted in our constitution, so that the executive government of the University including the general superintendence and control over the constituent colleges, is entrusted to the Council.

Our University is not altogether a new creation. We have to build on what we have. New features of importance are introduced but no revolutionary changes are made.

ENTRANCE CLASS IN HIGH SCHOOLS.

It is a common complaint, especially after the acceptance of the School Final Certificate as a passport for admission to a college, that many students are unable to understand the lectures in college given in English. We have therefore opened an additional class in the more important High Schools and prescribed a course to qualify students for entrance into the University. The lecturers for these classes are specially selected, and we hope

that the students after undergoing this training and passing the Entrance Examination at the end of the year will be much better fitted to enter upon their studies for the B. A. course. A curious parallel to this state of things may be found in the experience of the medieval Universities of Europe. Lectures were delivered in Latin and it was assumed that the student came up with enough grammatical training to understand them. A good many fell below this requirement, and grammar schools had therefore to be attached to the Universities.

THREE YEARS' COLLEGE COURSE.

As a set-off to the prolongation of the High School period, the B.A. course has been reduced to three years, and although our scheme when fully carried out requires that there should be no Intermediate examination, a compromise had to be made by instituting an examination at the end of the first year, to meet the demands of the other Universities which allow candidates to turn to the medical and engineering courses after passing the Intermediate examination.

It may be interesting to remark that in adopting this course, we are unconsciously returning to the old practice of the Madras University when candidates proceeded to the degree examination three years after Matriculation without undergoing any Intermediate examination. But the standards of the present day are much higher than they were at the infancy of the University life, and we have therefore added the year cut off from the College to the High School course.

TUTORS.

University education is more costly than ordinary education, and it would be wasteful to employ able and costly professors and make them spend their time and energy in training small classes of insufficiently qualified students. On the other hand, such students, will be unable to profit by lectures in large classes without some individual help and guidance. The system of having professors to lecture and tutors to conduct small classes and to help and guide students, has not yet been tried in India, though it was suggested in the report of the Universities Commission. Tutors have indeed been appoint-

ed in some colleges, but they have, been mainly employed as assistants to professors in correcting written exercises of students in large classes. Six tutors have been appointed for the Mysore College, and there are already a number of demonstrators and tutors in the Bangalore College whose work is of the same kind.

B.A. & B.Sc. COURSES SEPARATE.

Besides the B.A. course which is open both to those who elect to study the science and to those who choose the Arts subjects as optional branches, we have provided a B. Sc. course for those who wish to devote themselves more especially to a study of science. The language courses will be lightened for the latter and the time thus saved devoted to a deeper study of one of the science subjects selected by them. Further specialisation will be provided for in the M.Sc. and the M.A. courses, and we have considered it unnecessary to institute separate Honours courses as is done in the Madras University.

ENGLISH LANGUAGE.

The place of the languages in the new scheme has given rise to some controversy. In the first place, it has been urged that much time and energy is wasted in requiring students to acquire a deep knowledge of English which is a foreign language, and that the bulk of the instruction should be given in the language of the country and English studied as an optional or subsidiary subject. There is no doubt that English can never become the language of the people either here or elsewhere in India; but that does not mean that it would be a wise thing to sacrifice the standard we have attained in its cultivation. Whatever may be the merit of the vernacular languages as media of instruction in primary and secondary schools and in technical institutions of the more elementary standard—and in this sphere, their claim is paramount—it would be a most unfortunate and retrograde step to displace English from its predominant position in the scheme of University education. We have indeed managed to lighten the courses in this subject, and to reduce it to a minimum in the B.Sc. course, but further, for the present it would be hazardous to go.

SECOND LANGUAGE.

A second language was for a long time a compul-

sory subject of study in the curricula of the various Universities; but lately it has been reduced to the position of an optional subject and very few elect to study it. This is considered a great disadvantage, as it is most desirable that the alumni of our Universities should be able to disseminate the knowledge they have gained by means of vernacular literature. The original idea was to make Kannada or Hindustani alone the compulsory second language, but in response to the demands of public opinion, the two classical languages Sanskrit and Persian and the two other Dravidian languages Tamil and Telugu have been admitted, together with French for the sake of those whose mother-tongue is not an Indian vernacular language. On behalf of the classical languages, it has to be said that they are as useful for real scholarship in the vernacular language as a direct study of the latter. It may however be confidently expected that Kannada will be taken up by a large majority of the students; and our new scheme may well take credit for contributing to the advancement of a study of that language. In prescribing the M.A. course in language, the Board of Studies will be asked to report whether Kannada along with another language may not be prescribed as one of the courses for that degree.

HOSTELS AND UNIONS.

Of the other features of the scheme, it is necessary to mention only a few here. Owing to the limited resources which the majority of our students can command, it was considered undesirable to prescribe residence within the University to all students. But as the existing hostels are always full and sometimes overcrowded, and as we expect a larger number to become resident, the hostel accommodation will be doubled, giving room to about half the total number of students that may be expected for some years. To encourage more of corporate life and afford better opportunities of meetings between students and professors, Unions are to be built in both the places; and in Mysore a gymnasium for physical exercise is to be put up.

EXTENSION LECTURES.

The University Extension movement was first taken up by the Cambridge University in England at the instance of Professor James Stuart, and its object is to make higher instruction available to

persons so situated that they cannot attend the regular University classes. This has usually been done by lectures, by classes held out of the University precincts or out of ordinary class hours or by correspondence. If enthusiastic and qualified teachers and serious pupils can be brought together, much good might be done by organising continuous courses of lectures on useful subjects. It is proposed to take up this work in an experimental way at first, for the scheme has not succeeded equally in all places where it has been put in operation even in advanced countries.

These are the main features of our scheme. I hope that I shall be pardoned if I now say a few words about the prospects and aspirations of our University.

IDEALS AND FUNCTIONS—SUBJECTS.

The idea that a University is a place of universal knowledge, whether etymologically correct or not, is accepted by popular usage. If universal knowledge means that all branches of the Humanities and the Sciences should be included in its sphere, I am afraid that there is no University in the world that can satisfy the requirement. Some such thing may have been possible in the earlier ages; but it is no longer possible to include everything that is known and worth cultivating for culture or knowledge, in any single institution, when even such things as Dentistry and House-keeping have reached the rank of University subjects. But if, with Cardinal Newman, we hold that "the true and adequate end of intellectual training and of a University is not learning or acquirement, but rather is thought or reason exercised upon knowledge or what may be called philosophy," we can undertake to conduct a University, even though we may not have the means of providing teaching in it for all branches of knowledge.

The limitations in respect of subjects and faculties are many. Even if we had the necessary resources in talent and money, it is neither possible nor desirable that we should strike out an altogether original course for ourselves. We must give credit for care and discretion to all the great men who have shaped the University courses for us hitherto, for they too had studied the needs and circumstances of the

country in making their plans. Though we erect a separate University, we cannot make ourselves absolutely independent of other Universities. In the first place, we are not able to open all the faculties to which our students have hitherto been resorting for higher degrees, partly for the cost and partly from an apprehension that may be entertained of our inability to attract a number of students proportionate to cost. It is the essence of liberal University education that it should not be narrow and parochial. Though we may have a University of our own, we should not like to shut off our students from the advantages of the training that other Universities afford; nor if we can help it, would we close the portals of our University to students from beyond our borders, for a *Swadesi* policy is altogether out of place in education.

STANDARD.

A University degree is after all a stamp, and the University examination, an assay of quality. The most important and arduous thing is, to discover and procure the real metal, and unless we do this in our University, the assay will yield poor results and the stamp on our coin will not prevent it from falling in value like the paper money issued at the French Revolution. We wish therefore to keep our standard high in quality as in number; for, as remarked by a recent writer "the really important things are incommensurable and uncountable. Some one young man or woman among these units is better worth educating than a thousand others. But which is the one, and what kind of training is best for him, nobody knows. When the psychologists become skilful enough to determine vocational ability by tests of reaction, time and association of ideas, we may save time and metabolism of grey matter by confining higher education to the fittest. In the meanwhile, it is best to throw in a wide net with a fine mesh."

PROFESSORS.

Fine costly buildings and grand inspiring scenery add to the value of a University. In fact, living in such surroundings is in itself a liberal education. But they are not the main requisites of a successful University. It is the students and the professors alone that can raise its standard and keep it up at a high level. The remark is often made that there is

a radical difference between University teaching and school teaching. If I have understood it correctly, it seems to lie in the fact that school teaching is intended to store the mind of the pupil, when his receptive faculty is at its highest, with as much useful knowledge as it can hold. The University education has, on the other hand, as its main function, the culture of the mind, so that while the amassing of knowledge is not despised, the faculty of judging and weighing and assimilating what is taught is the main purpose. The professor must feel that "the lecture is useful for inspiration and demonstration but not for information."

STUDENTS.

The student also on his part should realise the proper object of University training on which he has entered. From the point of view of students, the President of one of the American Universities writes that the Universities of the world easily fall into four classes: those that have for their object the discovery and publication of truth; those that aim at the development of character through the power of thinking; those that have for their real, though seldom spoken of, purpose, the making of the gentleman; and lastly those that seek to train, efficiency, to make graduates who are able to learn their living. I do not think that this division is logical, and that there are any Universities which can be definitely and exclusively placed in any one of these classes. For example, if the sole aim of the University is the discovery of truth, it need have, as Newman long ago remarked, no students. The second and third divisions mean pretty much the same thing, for it is difficult to concede the title of gentleman to one whose character has not been developed by some process of liberal training. Still these qualities are more or less those which all Universities strive to foster; and a student should make the best use of his time in the University by devoting his attention as far as practicable to all of them.

EXAMINATION.

In the scheme that we have adopted, we wish to give more prominence to teaching than to examination, to the cultivation of the mind than to the exhibition of the result. As I have observed already, the making of a finished scholar ought to be the more important part of the duty of a University. Where there are a

number of colleges training students in the same courses, it is a necessary precaution to ordain that the examinations should be conducted by an independent authority and that, to prevent particular students having an undue advantage over others, the professor of any college who has taught a certain subject should not be an examiner in that subject. The University Commission dismissed the suggestion of the college itself deciding whether a particular student deserved a degree as impracticable. In a teaching University like ours, there is *prima facie* no reason why there should be a separate University examination. But we are dependent on other Universities and outside authorities for recognition of the value of our examinations and degrees for various purposes, and we have to adopt such measures as will ensure general confidence in the award of literary honours by us. In our system, the risk of giving undue advantage to one college over another is avoided; but there is the natural desire to exhibit to the world the result of one's own work in the best light possible, to be taken into account. Against this, there is the consideration that if a professor passes unworthy pupils as fit, the value of the honours gained under his tutelage is soon discovered, and the degrees of the University will be discredited. But the notification of passes in the Gazette brings immediate recognition, while the discovery of the relative unfitness of the men sent out of the college with its stamp of approval may take years to come. We must therefore wait for the time in which the professors will have established their prestige for learning impartiality and strictness in the award of their honours, not only locally but also in the eyes of the world at large, before we can dispense with the conduct of examinations by independent examiners. In any case, it would seem to be desirable to have some external examiners to correct the unconscious bias and personal idiosyncracies of teachers when those to be examined happen to be their own pupils.

NEW COURSES AND FACULTIES.

We have, in organising the courses of study, followed substantially the example set to us by the Madras and other Indian Universities. But it should be our aim gradually to modify them so as to suit the studies grouped in the University to our needs and to

introduce such features as would give a distinctive character to the University. Of the usual faculties of the Indian Universities, we have for the present restricted ourselves to Arts and Science—both of which go under one faculty in the Madras University. Of the remaining ones, that of Law may be advantageously introduced, if there is an adequate demand for it. For the practice of the legal profession within the State there may indeed be no present need for recruitment on any appreciable scale. The study may however be regarded as a branch of general education and it is likely to be of as much general cultural value as the study, e.g., of Political Philosophy or Political Economy. Medicine is of course likely to be much more useful and the only obstacle to its introduction is the large cost of providing for its teaching in a manner worthy of being included among the University courses; but a small beginning I believe, is to be made in this direction outside the University; and the time may come when the teaching may be raised to University rank. The subject of Engineering is of more immediate urgency, and if not in all its branches, it may be worth organising its study in Mechanical and Electric branches in the near future. The subject has been referred for investigation by a Committee appointed by the Council, and the results will be placed before the Senate for consideration. A degree for Commerce is also suggested, and there may be scope for enlarging the existing courses in such a manner as to introduce more subjects of commercial and business interest into them. The question will also receive the attention of the Senate in due course. Agriculture is again a subject of paramount importance for our people. A School of Agriculture has been opened in the State, and it may gradually be raised to the rank of a University faculty.

The impediment to the spread of higher education in the professional branches is the absence of careers for the young men trained, giving them an adequate start in life and sufficient opportunities of practical experience. As these defects are removed, the higher education in branches of Applied Science is likely to grow in importance.

IMPROVEMENTS IN EXISTING BRANCHES.

There are however certain directions in which the subjects already within the purview of the University

may receive larger attention and a more extended treatment.

The subject of Indian History and Archaeology including a history of our own State and the Southern Indian States, especially the Empire of Vijayanagar ought to be specially cultivated. It may perhaps be advantageous to associate the work of the Archaeological Department with the University. Again the Oriental Library with its publication branch may be transferred to the University. I believe it was the intention of Your Highness's Government once to appoint the Sanskrit Professor of the Maharaja's College as the head of this institution. The arrangement would be a most convenient one, as it would give him and the students of Sanskrit in the University, access to a large and useful library and opportunities for research. It would also give the University suitable work for its own department of publication.

About a year or two ago, Your Highness was pleased to appoint a Committee for reporting on the means of improving Sanskrit education in the State. The report of that Committee is now before the University Council whose opinion has been requested. Both the University and the Sanskrit learning might be benefited by mutual association.

There is another branch in which it would be useful to introduce a new departure. The subject of Philosophy as studied in the Madras University had till recently left Indian Philosophy altogether out of account. Greek Philosophy, the Philosophy of Kant and Hegel, or the works of a score of English, French and Scottish schools whose names are now almost forgotten were from time to time prescribed to the Indian students of Indian colleges. But it was not even suspected that Vyasa and Sankaracharya were at least as worthy of study by the Indian student and as near to present day beliefs and thoughts of Hindus, as Pythagoras and Heraclitus, whose existence and opinions are certainly not less remote and mythical than those of the Indian sages. We are often reminded of our inferiority in the scale of nations in certain respects. I believe we are in no danger of forgetting it, for it is written in such large characters on our material surroundings and daily routine that he who runs may read. But if only for our admitted poverty in so many things and to cherish our self respect we should

maintain with particular care what there is of real worth in us. If as many scholars cultivated our Indian Philosophy as European scholars who devote themselves to Greek Philosophy or even to our own Philosophy, they would have brought it into vogue and fashion, so as to be more zealously studied and understood. Here is a large field which our University might usefully cultivate and reap a rich harvest.

I have been speaking mainly of History, Language and Philosophy in this connection, for whereas I know a little of these things personally, I can speak only by hearsay of what appertains to the Department of the Sciences. Our College in Bangalore has been teaching the science branches of the Madras University with considerable success for years past; and the location of the Indian Institute of Science is an advantage which we have not hitherto utilised as well as might be expected. It is these circumstances that led Your Highness's Government not to remove the Science Department of our University to Mysore. If anything accounts for the wonderful increase in material prosperity of the world in the present day, it is the triumph of Applied Science. If it were not for the mastery that it has given man over forces of nature before unknown and unsuspected, the modern man would have little claim to superiority over his ancestors of two centuries ago. "The future" it is said "will have little use for the physical strength of man. Labour-saving and wealth-producing invention will give employer and employee something worth quarrelling over." It therefore needs no reiteration that as much attention as possible should be paid to our strengthening our Science Faculty and giving as much encouragement as possible to advanced study of science.

While we see the unprecedented advance made in the application of science to practical life within the last twenty or thirty years, it ought to require no argument to convince any one of the value of its pursuit in the Universities. It is on this account that I have perhaps laid somewhat disproportionate stress on the need of our paying sufficient attention to the cultivation of the humanistic subjects of study. The advantage of devoting oneself to them is not quite so evident to the sense as the results of a pursuit of scientific knowledge. "The trouble with mathematics is," it was humorously remarked, "that nothing whatever ever happens. If, when an equation is solved, it would blow up or give off a bad odour, there would be some students to study mathematics."

CONCLUSION.

These then are some of our dreams and aspirations:—a University or what, in our view is the same thing, the constituent colleges, whose chief function would be teaching, and where examinations will play their legitimate subordinate part of testing the value of the instruction given; where the spirit shall be that of pursuit of culture and knowledge for its own sake, but where the subjects of culture and the subjects of utility will be both taught with equal ardour: an ever-growing band of students coming from all places and all classes, with minds prepared and fitted to benefit by the opportunities afforded to them by the ample provision made by a benevolent paternal Government, and by the discerning patriotic public,—ever alert and eager to improve themselves by a serious attention to their studies, by cultivating congenial friendships and by living clean active lives in the healthy open surroundings of their colleges and hostels.

We wish to attract and retain, with the generous aid of Your Highness's Government, able and enthusiastic professors convinced of the dignity of their profession and content to devote themselves with a whole heart to the sacred task of training the future citizens of the State to high and noble aspirations and to devote their leisure to the investigation of truth each in his special branch of knowledge. We would have our University enter into the life of the nation; to permeate it in all its branches, to bring a high idealism into its everyday needs and duties; to spread habits of close observation, thoroughness of enquiry, impartiality of judgment and unperturbed acceptance of inevitable results, among those who are brought within its influence. I cannot sum up what we should hope for from our University better than in the words of Cardinal Newman: "A university training is the great ordinary means to a great but ordinary end; it aims at raising the intellectual tone of society, at cultivating the public mind, at purifying the national taste, at supplying the true principles to popular enthusiasm and fixed aims to popular aspiration, at giving enlargement and sobriety to the ideas of the age, at facilitating the exercise of political power, and refining the intercourse of private life."

In the beautiful capital cities with their broad, clean streets and parks and noble public buildings, in the long lines of railway, and in the large public works, especially in the colossal dam that is rising in the bed of the Cauvery river, and in the compre-

hensive schemes of material and moral advancement of the people, Your Highness's beneficent rule has created enduring memorials. But when all these railways and the reservoirs and electric schemes have borne their fruit and when generations or countries hence, the six millions of Mysore have grown to sixteen millions of a united, prosperous, contented, happy people, not the least title to grateful remembrance of future generations of the name of Your Highness will be that of Sri Krishnaraja Wodeyar the Founder of the University of Mysore.

H.H. The Maharaja Chancellor's Speech.

MR. VICE-CHANCELLOR AND GENTLEMEN OF THE SENATE!

It gives me sincere pleasure to be present on this historic occasion of the opening of the first Senate Meeting of the Mysore University. I think we all realise the solemnity and importance of to-day's ceremony. It marks an epoch in the development of education in the Mysore State, for what could be more significant in our history than the creation, at the express desire of the people, of a national University.

It is the first University in this country to be founded outside the limits of British India and is an institution which meets the special needs of Mysore and which will in time have far-reaching effects on the intellectual progress and the material development of the State.

I feel that, on this occasion, I should publicly state how great is the debt of gratitude we owe to the University of Madras under whose fostering care both the constituent Colleges of our University have attained their present state of high efficiency. Nearly all our most distinguished Mysoreans owe their education to the same University and are justly proud of the connection.

Our University may fitly be compared to a child which reaches years of discretion and leaves the parental home to establish one of its own with a grateful memory of its happy childhood.

The Madras University has, however, a very wide area under its control, and the time has also come to make certain changes to adopt our educational system to the actual needs of the people. The ideal of University life which the constitution of the older Universities of India has hitherto favoured no longer remains the same and the creation of teaching, local Universities is the inevitable outcome of the circumstances of the present time.

Our University is in reality one of the first fruits of the benevolent policy, inaugurated by the Government of India, of encouragement of smaller but more compact Universities approximating to the unitary type.

I am sure you have all listened with interest to the learned and thoughtful address of our Vice-Chancellor, Rajamantraspravina Mr. H. V. Nanjundayya. I do not propose to dwell on the special features of our University which have been so fully discussed by the Vice-Chancellor. I would rather confine my remarks to the more obvious advantages which a small University like ours enjoys as compared with the older, and more widespread Indian Universities.

It is, I think, obvious that our University, with only two federated Colleges, will come into special touch with the professors and students in a way which is not possible in the case of the older Universities with their system of affiliated Colleges spread over vast areas. The advantage is enhanced in the case of the Mysore University by the appointment of a full time Vice-Chancellor who can devote all his energy to administrative work and establish intimate relations with the professors and lecturers. This feature of our University is, so far, unique in India and at this initial stage, most satisfactory.

Another advantage is that we have a special guarantee of harmony and efficiency in the fact that the Principals of the two Colleges and representative professors have a place on the Council and therefore a direct voice in prescribing courses of study, in directing examinations and, in fact, in every detail of the administration. This intimate connection between the teaching staff and the University is still further strengthened by the fact that all the professors, without exception are constituted members of the University and have a seat on the Senate.

Another very important feature in a small University is the stricter control which it can exercise over the social life of the students. The Unions which are to be built at Mysore and Bangalore will encourage the best form of Club life among both professors and students. The hostels which we intend to extend and amplify will develop the residential feature in University life. Supervision will be exercised also over non-residential students who are not living with their parents or relations.

I need hardly point out how great a stimulus will be given to the important branch of Athletics by the development of residential life, the erection of

Gymnastic and Cricket Pavilions and the direct influence of the Professors, who will in time be provided with residences in the University areas.

The Mysore University is wisely beginning in a modest way, postponing, until it has passed through the initial stage, the establishment of schools of Law, Medicine, Engineering and Commerce.

Our present Engineering, Mechanical and Commercial Schools, for their part also, need to be developed before they can be profitably taken over by the University, and I am glad to know that a Committee has been appointed to see how far these institutions can be immediately improved.

I am naturally interested in the special encouragement of Kannada literature which is provided for in the University Scheme; we all know that study of the Vernaculars is very apt to be neglected nowadays in both Schools and Colleges and I am glad to see that our University scheme provides for a fuller and more continuous course of teaching not only in Kannada but also in the other Vernaculars of Southern India, which are spoken in Mysore.

Our University will also be engaged in diffusing knowledge among that section of my people who, for various reasons may not be able to participate in the courses and discipline appointed for the regular examinations. It is with this object that the scheme provides for the establishment of extension and publication departments.

I trust that the University will soon be able to develop fully this side of its activities with due regard to the practical needs of the country.

Gentlemen, I feel I should not omit to refer on this occasion to the active sympathy and support we received from Lord Hardinge and Sir Hugh Daly in bringing this University into existence.

I should also like to say how highly we value the assistance and advice of gentlemen from outside my State who have, at much personal sacrifice and trouble, consented to work on our Senate.

In conclusion, I feel that I ought to say a few words as to what I think should be the aim of our University. In the first place we should spare no effort to gain for the Mysore University the respect of the educational world. This end can only be achieved by maintaining a really high standard of teaching and examination and also by never allowing that standard to be lowered, however strongly you may be tempted by the lure of numerical results. It

should be the aim, too, of the University to turn out Graduates who are not merely learned, but who are of high character and bear the stamp of general culture and refinement which are the distinguishing marks of every true gentleman.

This is a high ideal, but if the Mysore University helps to realise it, she will have played an important part in the development of Higher Education in India.

Reviews and Notices.

TOY MAKING, BY R. K. & M. I. R. POLKENHORNE. (LONDON: GEORGE G. HARRAP & Co.) 7s. 6d.

This book should certainly find a place in every library for teachers of young children. It is essentially a practical book, teaching how to make original toys with the simplest materials and as few tools as possible. The toys described are all capable of being made in the class-room or in the home. Each toy also has, together with its description, measurements and diagrams, thus helping to a great extent the usually overworked Kindergarten teacher. There are numerous illustrations of both finished toys and toys in the making, and the binding and printing are all that are to be desired.

THE JOLLY BOOK OF BOX-CRAFT, BY BEARD. (LONDON: GEORGE G. HARRAP & Co.) 3s. 6d.

This book would make a valuable addition to any Kindergarten library; it is filled with suggestions for the handwork teacher. It constitutes a delightful gift book for boys and girls, who are at the age when they are always wanting to be doing something, and should be welcomed both by teachers and pupils.

PICTURE COMPOSITION, BY J. NELSON FRASER, M.A. (BOMBAY: K. & J. COOPER.) TEACHERS' BOOK, 12 as. PUPILS' BOOK, 8 as.

This book could only be used by much older children than those one generally finds in the Kindergarten. It might be found useful with some children but the majority would, I think, find it difficult to find out what any of the pictures alluded to, as many of them are not at all clear.

A FIRST COURSE IN PRACTICAL CHEMISTRY FOR RURAL SECONDARY SCHOOLS, BY WILLIAM ALDRIDGE. (BELL). 1s. 6d.

This small volume of 122 + xii pages has been published by Bell. The book as the author states

has been 'specially designed to teach the pupil the elements of science through the medium of rural phenomena which he finds around him.' It is essentially a laboratory guide and fulfils the conditions of a good one by training the pupils in habits of orderliness, carefulness, economy, etc. The directions given for many experiments are rather meagre. They ought to have been ampler so as to enable intelligent pupils to follow the book in setting up and performing experiments without constant help from the teacher. Again, an index will be a useful addition to the book. The author's long experience has suggested to him to withhold the observations which pupils are expected to make, as 'boys can usually see what they are told to see in an experiment whether it is there or not.' On the whole the book should prove useful to young teachers in selecting the subject-matter and method of elementary work in the laboratory.

A FIRST BOOK OF CHEMISTRY: WHITTON. (MACMILLAN). 1s. 6d.

This is one of a series of volumes published under the title 'First Books of Science.' The author in this book has endeavoured 'to stimulate the readers' interest so as to secure his desire to study its subject further.'

Sufficient instruction is detailed so as to allow a pupil to undergo a regularly graded course in laboratory practice without much help from a teacher. The quantitative aspect of laboratory training has been kept prominently in view. Certain common experiments as burning of phosphorus (p. 11) have been slightly altered so as to make them more instructive. Important cautions whose neglect is likely to cause danger are printed in italics to call the special attention of the pupil. The Heuristic method of keeping the pupil in the attitude of an investigator has been attempted. The book is replete with trustworthy drawings which go a great deal to make the contents lucid. In each chapter the experimental part is usually followed by a general discussion in which inferences are drawn from the experiments. This has no doubt entailed a certain amount of duplication, but it serves the important purpose of consolidating the pupils' knowledge. It might be suggested that important instruction, the overlooking of which may result only in partial success in experiments or in the omission of vital points, must be emphasised by the use of bold type or otherwise. The author's method of exposition of the uses to which the substances discussed in the book are put, is really alarming. The last chapter of the book is devoted

to the study of the laws of chemical combination in which a connected series of quantitative experiments enables the pupils to deduce these laws from experimental facts. 'On such experimental facts as these depend theories of chemistry which bring together all the seemingly isolated facts and make chemistry a true science.'

A reference to the book will satisfy any one that it is 'suitable for pupils preparing for any elementary examination' and the author legitimately hopes that it will be of some interest and service to the general reader.

PRACTICAL HEAT, LIGHT AND SOUND, BY PICTON. (BELL) 1s. 6d.

This book is the result of many years of labour in the laboratory and as such it is practically a finished product most of the experiments demand only simple and inexpensive apparatus. Generally speaking no special types of apparatus is used in performing experiments, the experiments being very often managed by retort stands, clamps, rings, metallic tubes, etc. Even the very first experiment is illustrative of this fact. In most of the South Indian laboratories, special types of apparatus are made for experiments on linear expansion, for example, but the author's method of using general types is certainly preferable for simplicity, cheapness and economy of space. To measure the linear expansion of a rod by means of the spherometer given on page 26 is also another interesting illustration. In each experiment a tabulation form for recording results is given which will prove particularly useful to beginners in the laboratory. The numerous and carefully graded examples set at the end of each experiment and chapter serve the useful purpose of making laboratory work instructive and not mechanical. The book will prove eminently useful to teachers and pupils of our High Schools, especially of those of slender means.

NUMERICAL EXAMPLES IN PHYSICS: JONES. (BELL).

This volume priced at 3s. 6d. and published by Bell is the result of an attempt to bring within a short compass a mass of information useful for the student of advanced physics.

It deals with all branches of physics excepting properties of matter and sound, which the author has excluded for fear of rendering the volume too bulky. To give the reader an idea of the nature of the work the author states in the preface, 'Every effort has been made, in order that the examples should be as concrete, as real and as

interesting as possible; and with this end in view, data are frequently given which may not be necessary for the actual calculation, but which are of great and fundamental importance in the actual experiment on which the example is based.

Numerous examples are given affording the use and construction of graphs; sometimes the purpose is pictorial to enable the student to visualize the relationship between connected quantities, in others numerical results are sought by interpolation or by the intersection of graphs, while much practice is afforded in determining formulae, by suitable co-ordinates and especially by logarithmic graphs.

Among the special features of the book may be mentioned the treatment of the chief theoretical points, on which practical measurements depend. These have been discussed in detail and the discussion will serve the useful purpose of refreshing the minds of students with regard to such details before they actually begin to solve the problems.

The author has not refrained from the use of the differential and integral calculus, wherever such use has minimised labour without the corresponding loss of clearness. His tabular form of recording figures besides being instructive serves the additional purpose of obtaining the physical constants of various materials rarely given in the regular books.

As indicated already, the book treats also of the advanced portions and as examples we may state the transference of heat, mechanical equivalent, simpler applications of the laws of thermodynamics in heat; dispersion and achromatism, intensity, absorption, and wave theory in light; and exercises on astatic galvanometers, ballistic galvanometers, a long chapter on induction including earth inductor, alternating currents, condenser discharges, and exercises illustrating co-efficients of induction, impedance and permeability, in electricity. It also includes some useful problems on thermo-electricity, electrons and moving charges.

The author's use of the term 'elementary,' in common with that of many other authors, is somewhat misleading. Far from being elementary, the advanced portions have been dealt in each chapter with a completeness, rarely seen in similar books. The portion covered by the author is too vast to admit him of treating adequately the elementary portions so as to be understood by students, who are on the threshold of their collegiate career.

The book concludes with a table of the more important mathematical and physical constants. The author does not include a table of logarithms as the appendix, as he expects the use of logarithmic tables of five figures or more. He has

however included the logarithms of frequently occurring constants.

The college students, especially those of the B. A. classes, will find in this volume numerous examples which will test their knowledge of Physics minutely, besides helping them in doing much of the calculation involved in laboratory work.

PHYSICAL CHEMISTRY FOR SCHOOLS: FANTON. (CAMBRIDGE UNIVERSITY PRESS.)

The handy volume of 215 pp. has been written by the well known author to serve as an introduction to a detailed study of Physical Chemistry for those who have only some knowledge of descriptive Chemistry and Physics. The title of the book is somewhat modest, the standard of information being quite suited even to our B. A. course.

The subject-matter of the book is presented in a logical order. The true significance of each principle in its practical application has been opportunely pointed out. The author, while he keeps himself clear of controversial topics, leads the student through the latest accepted theories to the controversial subjects, so that the student may exactly know in what direction physical chemistry is developing, that he might later on engage himself with advantage in widening knowledge. In short the author brings explicitly before the reader's mind the ideal that Physical Chemistry like other subjects is not a finished product, but one undergoing a gradual expansion and evolution.

It has been one of the author's endeavours to explain wherever possible the relationship however obscure between composition and physical properties of substances. This is certainly one of the fields in which much remains yet to be done. It may be deemed desirable that the book should give some detailed information which would help the young student to conduct some practical experiments. This, however, the author withholds from the student.

As a rule, the author has kept in the background mathematical considerations. He has not however omitted to bring in mathematical details wherever their omission may lead to inadequate knowledge. Information of an advanced nature has been printed in small type.

The author's treatment of topics like solution, and atomic weights, the latter leading on to periodic classification, is specially lucid. Besides these, the clear exposition of catalysis, reversible reactions, strength of acids and bases, etc., should be specially mentioned.

The book fittingly concludes with a well-informed chapter on 'some applications of Physical Chemistry.' This brings into bold relief the co-ordination of what is essentially an abstract subject with the necessities of practical life.

THE GOLDEN AGE OF MYTH AND LEGEND, BY THOMAS BULFINCH (HARRAP). 7s. 6d. net.

When Wordsworth said:

Great God! I'd rather be

A Pagan suckled in a creed outworn,—
So might I, standing on this pleasant lea,
Have glimpses that would make me less forlorn;
Have sight of Proteus rising from the sea;
Or hear old Triton blow his wreathed horn,

he was giving expression to a desire which is very widely felt in this age of scepticism. Among the books which give us vivid glimpses of the classic age of mythology, a prominent place must be assigned to this work of Thomas Bulfinch, which is a revised form of his *Age of Fable*, so well-known as a work of reference for classical mythology. It would be impertinent to offer any criticism of the classical work of Thomas Bulfinch. While it is complete as a work of reference, it is eminently readable, and the numerous poetical quotations relating to the tales render it highly interesting to the student of literature. Mr. Bulfinch knows the art of the story-teller to perfection and his method is an astonishing combination of rapidity with vividness. We have no doubt that Thomas Bulfinch has more than realised his hope: "We trust our young readers will find our book a source of entertainment; those more advanced a useful companion in their reading; those who travel and visit museums and galleries of art, an interpreter of paintings and sculptures; and last of all, those in advanced life pleasures in retracing a path of literature which leads them back to the days of their childhood, and revives at every step the association of the meaning of life."

Messrs. Harrap have in recent years been making quite a reputation for themselves as the publishers of beautiful illustrated books and it will be considerably enhanced by the publication under notice. There are as many as thirty-six illustrations, judiciously selected from the work of well-known artists and executed with great neatness and style. They serve to visualise the most stirring or picturesque episodes in the book, though Mr. Bulfinch is such a good painter in words that such adventitious aids for the interpretation of the book are hardly necessary.

As a book of reference, as a beautiful gift-book and as a manual of classical mythology, there are

few books to rival *The Golden Age of Myth and Legend* and we hope to see it used extensively in Southern India.

SIR RABINDRANATH TAGORE: HIS LIFE, ART AND PERSONALITY, BY K. S. RAMASAWMI SASTRIAR, B.A., B.L. (GANESH & Co.) Price Rs. 3. To Students, Rs. 2-8-0.

Mr. K. S. Ramasawmi Sastri of the Madras Judicial Service belongs to that small band of literary men in Southern India, who have been trying to combine in their work all that is best in the East and in the West. A profound student of Sanskrit and Hindu Philosophy, and an equally enthusiastic student of English Literature, Mr. Sastriar is eminently fit to discharge the duty he has undertaken to interpret the life, art and personality of Sir Rabindranath Tagore. The book is a very careful, elaborate and comprehensive biographical study of Tagore, and there is also a very successful attempt at the interpretation of the spirit of his writings. We have only one fault to find with Mr. Ramasawmi Sastriar's book, and it is not done with any want of appreciation of its sterling services as an interpreter of the genius of Sir Rabindranath. We are afraid Mr. Ramasawmi Sastriar has enveloped himself too much in an atmosphere of Tagore worship and does not find himself in a position to offer any independent criticism himself. We agree with Ruskin in thinking that the quality of reverence is one of the most essential elements of good character, but may we point to the author that there is such a faculty as individual aesthetic judgment with which man is endowed and a person must use it in the interpretation of a writer's work without contenting himself with singing enthusiastic paeans over his genius?

A GRAPHIC HISTORY OF MODERN EUROPE, FROM THE FRENCH REVOLUTION TO THE GREAT WAR, BY CHARLES MORRIS AND LAWRENCE H. DAWSON. (LONDON: GEORGE G. HARRAP & Co.) 1916. pp. 359. 5s. net.

We have got before us a picturesque volume describing in a very readable manner all the important features, turning points and critical periods in the history of Europe during the last hundred and twenty years. The Great War has created in a very large number of people the desire seriously to understand the historical basis of the present situation and to know how European diplomacy and what are called 'foreign affairs' have led to it.

The book before us omits all the minor details and petty political incidents of history, and confines itself to sketching the main features of the XIX century and those forces which have moulded Europe into its present shape and situation.

The 'earthquake of Napoleonism' and its lasting effects on French national character and conditions, the reaction which followed, the rise of the national movements, their seeming culmination in 1848 and subsequent collapse, the federal expansion of Germany, the achievement of Italian unity, the reorganisation and revival of France after the blow of 1870-71, the growth of the Balkan Problem and of the misnamed Yellow Peril—all these subjects have received fair and adequate treatment. Interesting biographical and character-sketches of great actors like Napoleons I and III, Mazzini, Garibaldi and Cavour, Bismarck and others, increase our interest in the book. The progress of British Colonies is dealt with in a chapter; while another is devoted to the creation of the open door in China and Japan, the tracing of the Chino-Japanese War of 1894-95, German appropriation of Kiaochow, the Boxer outbreak of 1900 which was so significant of the latent and active hostilities between the East and the West, the Russian exploitation of Manchuria and her consequent war with Japan and finally the establishment of the Chinese Republic with an estimate of its chances of success and permanence. The question of Pan-Slavism versus Pan-Germanism is also, briefly discussed on the usual basis of the geographical distribution of the two races, though other considerations which influence the whole problem might have also been touched upon. And lastly the history of the neutrality of Belgium whose national and international importance in the present war is so obvious, receives adequate treatment.

The book is one of small compass, dealing with a very large subject and goes largely by generalisations and rapid sketches. In spite of this obvious disadvantage, it succeeds in making the subject of the tangled European politics of the last century, intelligible and interesting to the general reader. Here and there we find a disproportionately large attention devoted to incidents which however productive of immediate consequences, have had no large and permanent influence, viz., the Dreyfus case and the English Reform Bill of 1832. As far as possible the authors avoid one-sided conclusions and partisan views of controversial subjects. However, the growing arrogance of Germany after 1871, its increasing indifference to moral and international obligations and its hostility to all democratic and socialistic movements might have been more amply described. The excellent

get-up of the book and the very good illustrations which accompany it, will, doubtless increase its readableness.

MODERN EUROPE 1789-1914, BY SYDNEY HARBERT. (MACMILLAN & Co.) 1916. pp. xii and 292. 2s. 6d. net.

The book before us professes to be only a sketch of the main lines of development pursued in European politics since the Revolution of 1789, and therefore proceeds more by generalisations and chief features, ignoring details and the labyrinths of national histories. It does not deal with the history of each nation separately and continuously during the period under survey, but tries to describe the forces moulding European development as a whole, and to estimate the mutual influence of external politics and internal history in the case of each State.

The first book deals with Napoleon and the era of which he was at once the product and the representative, though it appears that the narrative does not take in all sides of the question. Book II which deals with the Restoration era, the nationalism of 1830 and its growth until the Revolution of 1848, is clear and interesting. The general failure of the revolutionary and socialistic movements of 1848 resulting in the disappearance of the German federal parliament and the Italian defeat at Custoza is very well treated, both with reference to the factors which contributed to it and in view of its chances of ultimate success. The history of the achievement of Italian unity is made to revolve round the personality of Cavour, while the share of Mazzini, Garibaldi and La Marmora does not receive relatively adequate mention. The best features of the book are the description of the domestic regeneration and national reorganisation which were accomplished in most West European States after the Franco-Prussian War, as well as the treatment of those extra-national forces like the International Socialist Movement and the new Imperialism which have found its principal field of expansion in Africa and the Far East. There is an attempt to explain the causes of this remarkable overseas activity; and it is suggested with great reason that this competition, this struggle for 'a place in the sun' is in reality an extension of the struggle for territory within Europe itself. The abandonment by the Socialists of their original revolutionary attitude, and their increasing adherence to a programme of piecemeal reform has also been noticed.

The last two chapters dealing with the diplomatic history of Europe since the Treaty of Berlin

(1878) show "the absence of moral unity in the conduct of European affairs" which was responsible for the diplomatic groupings and their frequent shiftings, and "which was further displayed by the repeated inability of the Great Powers to co-operate for matters of common concern." The accompaniment of commercial competition by competition for ornaments has also been pointed out. The gradual emergence of England from a state of diplomatic isolation which she occupied during the Boer War, and the formation of the *Triple Entente* are made to show that "the attitude of England towards her continental neighbours has become less and less a question of her approval of their internal arrangements and of their relations with other European States, and more and more a question of their attitude towards the Empire in which she is less a ruler than a first among equals."

The bibliography given at the end of the book, though intended as a guidance for further reading, is palpably inadequate and ignores such prominent books on the French Revolution as those of Taine and Von Sybel and for the German unification works by Ouckmann and Von Sybel. Occasionally we do not find critical remarks on points which require them, as the English foreign policy of 1870 which made the country a dupe of the wily Bismarck. The description is brought down to 1914 and made to show all the diplomatic and political bases of the present struggle.

PUBLICATIONS RECEIVED.

- Outlines of European History, 1814—1914, by G. B. Smith, M.A. London: Arnold. 2s. 6d.
- Realms of Malory, by G. Callender, M.A. London: Macmillan. 3s. 6d. net.
- Medieval India from Contemporary Sources, by S. Lane-Poole, M.A., Litt. D. Bombay: Cooper. 12 as.
- Elements of Geometry in Theory and Practice, by A. E. Pierpoint, B.Sc. Bombay: Longmans. Re. 1-4.
- Notes on the Non-detailed English Texts of the Intermediate Examination, 1917, by K. Ramachandra Char, B.A., Nagercoil. 14 as.
- English-Tamil Dialogues together with Forms of Letters, etc. Mangalore: Basel Mission Book Depot. 8 as.
- English-Telugu Dialogues, together with Forms of Letters, etc. Mangalore: Basel Mission Book Depot. 8 as.

Books from the C. I. S. Madras.

- Studies in St. Mark in Telugu. 2 as.
- A Manual of Intercession in Telugu, by Rev. Andrew Murray. 2½ as.
- Tracts for Mahomedans by the Rev. G. H. Benson, D.D., in Telugu. 8 as.
- Victory Over Satan, by Wallela David. 6 ps.
- Prayer in Telugu. 6 as.
- Life and Teaching of Jeremiah in Tamil, by Rev. G. Parker, M.A., D.D., Part I. 9 as., Part II. 9 as.

Indian Educational Notes.

Madras Teachers' Guild.—A meeting of the *Mathematics and Science Section of the Madras Teachers' Guild* was held at 5-30 P.M. on Thursday the 12th of October in the Pachaiyappa's College with Mr. K. Chinnathambi Pillai, B.A., L.T., Professor of Mathematics, Pachaiyappa's College, in the chair. Mr. V. Venkatasubbaiah, B.A., L.T., Headmaster, Pachaiyappa's College H. S. Dept., opened a discussion on 'the Teaching of Elementary Mathematics with reference to the S. S. L. C. Scheme.' The points suggested for discussion were chiefly correlation in the different mathematical subjects and home-work. The meeting was attended by a large number of Mathematics teachers and the discussion was very lively. It was pointed out by several teachers that periods need not be allotted separately to Arithmetic, Geometry and Algebra, in the school time-tables, that the present syllabus was intended to make mathematics interesting to all and that if the syllabus was properly followed, pupils would get a sufficient grounding in mathematical principles and at the same time have sufficient mental training. Some of the speakers laid stress on the evils of overdoing certain portions of the syllabus such as graphs. After an instructive speech from the chair, the meeting was dissolved at 7-20 P.M., with votes of thanks to the Chairman and the opener of the discussion.

U. F. C. M. High School, Chingleput.—The 76th Anniversary of the U. F. C. M. High School, Chingleput, was held on the 18th October, with Mr. D. N. Strathie, I.C.S., in the chair. After a prayer and hymn the boys recited a few humorous pieces. The report was read by Mr. D. G. Moon, the Headmaster. Mrs. Strathie gave away the prizes. The Andrew Silver Jubilee Medal was

won by V. N. Ramaratnam. Mr. Strathie then delivered the following most interesting speech:—

"I am sure I am voicing the feelings of all present when I say it is a great pleasure for us to be here at this 76th Anniversary of the United Free Church of Scotland Mission High School. You who are citizens of Chingleput must feel that the Mission has conferred a real benefit upon your town. It started this High School in the old dark days when education was the privilege of the few. Even as late as 1880, there were only 4 High Schools in this district and 3 of them were run by the Free Church Mission. Now others have sprung into existence but surely you cannot forget that the Free Church Mission was the first to throw open the advantages of secondary education to your fellow-townsmen. To me, it is an especial pleasure to feel that I am here in an institution began and supported by Scottish money, to which Scottish lives have been given. Ever since the days of John Knox and the Reformation Scotland has taken the lead in education and it is gratifying to think that even in distant Chingleput Scotland was first in the field."

Well, this school begun in 1840, has just completed its 76th year and it is showing no signs of senile decay so far. The report to which we have just listened is a most satisfactory one. The numbers in the school have increased, the staff has been strengthened, the finances are sound, the buildings have been extended and improved and good results were obtained in public examinations. In the field of athletics, the school has taken a leading place. I have seen the team at Foot-ball. I even enjoyed a game with them and it was no surprise to me to learn that they won the District Cup and took permanent possession of the Town Cup. I trust the management will continue to encourage these corporate games and that the boys will all endeavour to take part, for, apart from the physical benefit, there is no better means of inculcating those feelings of co-ordination and discipline which Indian boys sometimes lack.

And now I want to say a few words to the elder boys—those boys who will soon be leaving this school. I hope most of them are continuing their education and I hope their parents are going to help them to do so. I often get applications for clerks' posts from youths who have merely studied up to the School Leaving Certificate. The old story is repeated "owing to straitened circumstances, I was forced to discontinue my studies." I know that many of your parents here are not well off, but I know that

many of you could do more for your children than you do. I know that you waste your money on jewels for your women-folk and on foolish chamashas, that you spend a year's income on marriages and other ceremonies. Believe me, India will never take her proper place among the nations of the world till her people learn to spend less money on marriages and more on the education of their children. Look at America, look at Germany. We need not admire all their institutions, but no one can deny their strength. That strength is very largely due to their high level of education. Nearly all Germans and American young men have been to college. And look at Scotland, I have seen families there, poor country people, the mother had never worn a jewel in her life, yet her sons were at colleges. And failing your parents, you boys must make a fight for education yourselves. There is many and many a self-educated man in America and Scotland—men who have paid their own college education by working during the holidays or, after college hours. If that can be done, in the fierce European competition, it can be done here.

One more word of advice—don't think Government Service or the Bar are the only spheres of activity for educated gentlemen. Most young men first try to get a good post under Government. If they fail, they look for other employ. Now I do not want to say anything against Government Service. It is perhaps the noblest profession of all. But it depends on why you enter it. If you go into it with the keen desire to serve the State and benefit the community good and well. But if, as is too often the case, it appeals to you as a nice safe job, where you can do a fair day's work and live to earn a pension for your sleepy old age, then you are not wanted in it and it is not good for you. Far better that you should enter into some business where you will have to depend on your brain, where you will have to strain yourselves throughout to keep your place and where if you do succeed you can rise more quickly to a position of power and affluence. India needs good government to-day, but an even more crying need is for educated and enthusiastic business-men. There are great possibilities in Indian industries and if you boys turn your attention to them you will be serving your country better than in writing office notes or trying to twist the law in favour of your clients in Court.

And now, before I close, I must congratulate the successful students. I hope that this first success is only an earnest of a future prosperous and successful life. At my own prize-giving at home, it used to be the custom to speak words of

consolation to the boys without prizes, to tell them that many of England's greatest men had been the dunces at school. Robert Olive, who laid his guns at the Fort from this very spot, used to be held as an example before them. Well, to you boys who have not got prizes, I have butly to say if your failure has been the result of too high spirits, if you have been climbing church steeples like Olive or playing at soldiers or planning aeroplanes instead of listening to your

teachers good and well. Go on and let us have more Robert Olive. But if your failures mean that you have been lazy and sleepy and inattentive, I have no sympathy for you. You must wake up next term and see that you appear on this platform next year.

The Rev. W. S. Sutherland moved the vote of thanks and the proceedings terminated with the singing of the National Anthem.

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The Educational Review.

We welcome this the latest addition to the sisterhood of 'Indian Universities which are none too many for the growing needs of a vast country like India. As the existing ferment in matters educational results in the organised extension of primary and secondary education the need for increased provision for a University education is bound to grow beyond expectation, as in the present condition of industrial opportunities open to the ordinary Indian, any large outflow is well nigh impossible. Industrial education will do but little without openings for industrial talent, and efforts in this direction do appear to us far too feeble to have any material effect upon University education in the near future. This is by the way however.

It is a welcome change that the Patna University is to be of a different pattern from the elder Universities. As the preamble puts it, it is to be essentially a teaching University, but as a concession to the needs of the time, there are to be external colleges controlled by the University, as the affiliated are under the elder Universities. In this particular it differs from the Mysore University which has but two colleges under its control on the same footing. Patna is distinctly nearer to the residential University in regard to the University colleges. At present it is only the two colleges at Patna, one an Arts college and the other a Training college, that will come up to this dignity. Anyway provision is made for two distinct classes of colleges which, let us hope, will both benefit by a spirit of healthy emulation between them.

This University is to consist of the various authorities and officers that are usually associated with Universities, but several of these have distinctive features of their own. The Chancellor as the head of the University has the powers that other Universities give him, and he has in addition the power of initiating enquiries in any matter pertaining to the University. He has further the power of nominating four among the members composing the Syndicate.

The next peculiar feature is that the University is to have a full-time Vice-Chancellor appointed by the local Government for five years in the first instance, whose term can be renewed, two years at a time, afterwards. This functionary has, in addition to the powers vested in him of carrying out the Regulations generally, the power of appointing and dismissing the officers of the University and the right of visiting and inspecting the external colleges, and is responsible for the discipline of University colleges.

The Syndicate is to consist of 16 members composed of three *ex-officio* members, the Vice-Chancellor, the Director of Public Instruction of the Province and the Principal of the University College; four members nominated by the Chancellor of whom two ought to be educationists, and the remainder elected by the Fellows of the Senate from among themselves, of whom five at least should be educationists. There is in this an assured preponderance of educationists unless it is contemplated that the full-time Vice-Chancellor should be other than an educationist, or the Director happens to be a non-educationist. The Act is so framed as to have ordinarily nine educationists among sixteen members. The Syndicate is the executive body of the Uni-

versity and has charge of the whole management of its affairs. Though it does not contain a majority of Government nominees, it still has seven of its sixteen members nominated by Government either directly or indirectly. How far this will officialise the Syndicate remains to be seen in the working.

The Senate is to be a body of from forty to sixty ordinary members, and about eight or possibly nine *ex-officio* members. Of this number four are to be elected by the Faculties, and eight more by the other Fellows in the first instance. Later on however, these eight are to be divided between the Senate and the graduates in some proportion at the discretion of the Chancellor. The Senate has power to adopt any resolution upon any question it cares to take cognisance of, but its resolution is not to be binding on the Syndicate.

General provision is made in the Act for the admission of colleges, both University and external, as also for the exclusion of any, the initiative in respect of either measure being vested in the Syndicate. After the commencement of the Act all connection between the colleges in the Province and Universities outside shall cease. Provision for external colleges is made only in four places, Muzaffarpur, Bhagalpur, Cuttack and Hazaribagh.

These are some of the salient features of the University that the Act brings into being. The scheme is necessarily, nay even admittedly, one of compromise. What is worse, we do not like the under-current of want of confidence which gives the Syndicate and the Vice-Chancellor all the substance of power, leaving the Senate a dignified body of debaters without responsibility. This Syndicate

has no responsibility to the Senate as their resolutions have no binding force. If the Senate once nominated nine members they have no particular control over their action. Containing seven members nominated by the Government the Syndicate should be powerful enough to hold their own on equal terms with the Senate which may be trusted to realize its responsibilities. We fear that the Act officialises the University too far, but welcome the University none the less as a desirable addition to the handful of institutions whose function it is to carry the torch of learning to the most obscure corners of this vast continent.

The Senate of the University of Madras at two sittings lasting together about seven hours
Madras Senate Meeting.

got through about half the agenda announced for this session and adjourned to the 24th November next. Among the twenty items, out of the thirty-eight, there were some questions of first-rate importance. The first item taken up was the Mandamus case filed against the Syndicate by Messrs. G. A. Natesan and K. B. Ramanathan. Dr. Nair who moved the proposition made out that the Syndicate proceeded with the case without having taken legal advice before launching into it. He rightly pointed out by quoting extracts from the judgments of the High Court that there was no case for the Syndicate and drew the only conclusion that was possible that proper legal advice was not taken. In seconding the motion Mr. Vijayaraghavachari pointed out that the defence or explanation published by the Syndicate made the case worse for the Syndicate. The explanation made by the Syndicate is at the best feeble and we feel

bound to deprecate the use they have made of the name of Sir John Wallis, the former Vice-Chancellor, both on grounds of law and for reasons of propriety. We wish the explanation had not been published in the fashion it is. The Hon'ble Mr. Stone took, as is usual with him when matters come to head, the very proper line in asking the Senate not to pursue the matter further as it was hardly likely that the Syndicate would repeat the error and as the *bona-fides* of the Syndicate were clear. We wish very much that matters had stopped here. Mr. Hunter launched out, at this stage, into a tirade against Messrs. Natesan and Ramanathan, accusing them roundly of ingratitude to the Syndicate and the Vice-Chancellor Sir John Wallis. He succeeded in drawing down upon himself, what he richly deserved for his impenitent effusions, both Mr. Natesan and Mr. Ramanathan pointing out that it was the spirit which Mr. Hunter then exhibited more than anything else that aggravated whatever of evil there was in the whole proceeding. The Vice-Chancellor's intervention at this stage brought on Dr. Nair's clever take-off of Mr. Hunter with which he agreed to withdraw the motion. We pass on from this with a sigh of relief, but express the unqualified regret that some of the Fellows of the University like Mr. Hunter should let themselves go as they often do. We hope that these impenitent and erring Fellows will get to see sooner rather than later that their impetuosity loses more than gains even in a good case, and serves the only purpose of aggravating the ill-feeling of which there has been but too much evidence unfortunately in recent times, and which the more sober-minded part of the Senate on both sides regret. We expect that all of these learned gentlemen will

realise that each of them has not only to respect himself but also to respect the feelings of every other in the house.

The next item on the agenda of importance on which an acute difference was expected is item vii, recommending the appointment of Rev. Dr. J. H. Moulton of the Manchester University to deliver a course of special lectures on Aryan Antiquities. The Hon'ble Mr. Stone in moving the resolution stated that he was aware of the recent effusions of this itinerant Missionary Professor but felt justified in pointing out that this had no manner of a connection with the philological subject of his discourses. Mr. C. P. Ramaswami Aiyer pointed out that if he lectured on mathematics it would be undesirable to recommend his appointment in the manner suggested. The Hon'ble Mr. Pittendrigh however desired that, out of respect to the strong feeling against him in a part of the Senate, the motion be withdrawn. The motion was finally disposed of by passing on to the next item in the agenda. We could only wish that those responsible saw the wisdom of withdrawing the motion without bringing it for discussion. The whole attitude should have been not one of personal offence or ill-feeling neither of which has any place in the discussion. What is the fitness of the Rev. Dr. Moulton to talk upon any scientific problem, if he was going to make such offensive statements without the slightest regard to decency or propriety, without the least effort at an enquiry or investigation? Where did he gain the notion of Chamundi as the she-devil? What is the devil, he or she, that he has in mind? It is a devil of Christian creation. In what aspect of Chamundi did

he notice any appropriate application of the Christian notion of the devil? He must be a very poor expounder of comparative antiquities, who can go about giving expression to his ignorant prejudices with a strength of language and a contempt born of ignorance that is hard to beat. On this itinerant Professor's own showing Milton's God must have been about as much of a devil for having consigned Satan to 'bottomless perdition, there to reel in adamant chains.' This aspect of the question was not placed before the Senate. All the same, the University acted very properly in keeping a professor of these proclivities outside its portals rather than set the seal of its approval by honouring him with even a temporary lectureship.

In regard to the adoption of the proposed institution of the B.Sc. Degree we welcome the resolution of the Senate; but we beg leave to point out that in the final form in which it was adopted the scheme will have to be modified in important particulars before it can at all get into regular working order satisfactorily. This affords a very striking illustration of the contention of those that move for changes that they do not do so out of sheer perversity; but that even good measures when adopted leave much to be desired before they can be put into force. This is hardly surprising seeing how these measures get modified in the course of their passage through the Senate. The scheme as originally proposed was a good one and we would have welcomed the adoption in its entirety as it was proposed. The whole idea underlying this scheme is that students of science must acquire more of that science and that in an organised course which would

co-ordinate the various connected sciences and give them the practical character that is essential to the advance of scientific education and all that follows therefrom. The necessary prerequisite to this is the removal of the incubus of a heavy course in English.

This was done and the science subjects included in groups i, ii, iii were removed from the B.A. courses. If this had been accepted the B.A. courses would have stood with the ordinary and Honours courses in the Humanities, while the science courses would have had their distinct impress in the B.Sc. both ordinary and Honours.

The Senate have, however, resolved to retain the science branches in the B.A. courses as well. There is no doubt something to be said in favour of this, and the strongest argument in its favour is that University students who might enter other walks of life than the educational or other scientific ones could enter such having had a science course at the University. This no doubt is desirable. The best way to attain this end would have been to throw open the Law course and other general courses, of which there is none such so far, to the B.Sc. students as to the B.A.'s. Instead of adopting this simple remedy for a possible evil, the Senate in its wisdom, adopted an alternative—the retention of the B.A. courses in science as well. The acceptance of this modification results in this; There will be four courses in the University in the sciences, the B.A. ordinary and the B.Sc. ordinary; and the B.A. Honours and the B.Sc. Honours. The chief differentiation between the two former would be that the B.A. takes more English and only two, instead of three allied subjects in science; the B.Sc. takes only as much English as the

Honours B.A. candidate does but instead one more subject in the science group and a distinctly better course.

The purpose that the movers of the retention of the B.A. courses had in view could have been met by retaining the B.A. (ordinary) and throwing out the B. Sc. (ordinary). In regard to the two Honours courses there is absolutely no need to retain both. Being admittedly a specialized course, the suggested B. Sc. (Honours), with the M.Sc. following, is distinctly better. It was perhaps impossible in the form in which the whole change was put before the Senate, to work these changes in at a meeting. We earnestly hope that these changes which would conduce to simplicity, attaining at the same time to all that the promoters of the change intended to bring about, would be adopted before the colleges launch out into the courses adopted by the Senate. It is such changes that the nature of the proceedings necessitate, that a certain section of people regard as tinkering with the Regulations. Too much tinkering is quite possible, but changes like these are of an entirely different character.

The next agenda to evoke considerable discussion was the one relating to the constitution of the Syndicate very naturally. The number of the Syndicate has been raised from 10 to 12 elected members. Hitherto all of them were elected by the Senate, the mofussil colleges being represented sometimes by one, sometimes by two. The two Madras colleges, the Christian and the Presidency College, had always the largest number of members from their staff. The changes sought to be introduced are (1) to guarantee two members to the mofussil colleges, (2) to

let the various Faculties elect their own representatives, and (3) to limit the number that can be taken from a single college to one. These changes are hardly necessary and the election by the Senate of all the members of the Syndicate has advantages which it would be hardly worth sacrificing but for certain undesirable results that have flowed from the existing state of affairs. The Syndicate, as at present constituted, has become a close corporation which keeps in its own hands all the work that might well be done by others with advantage. The speech of Mr. Allen sought to prove that it was impossible that the work of the Syndicate can go on but for some self-sacrificing gentlemen in it who were willing to work on all committees and do all the work. He began pointing out at the same time that it was impossible to get assistance from others. The illustration he gave proved very unhappy for the case, and he did actually overshoot the mark in his general statement. It is just exactly this monopoly of work, which in less euphemistic language, is the monopoly of all payment from the University, that makes the position of the Syndicate rather ugly in our opinion. The Syndicate is an administrative body and like other administrative bodies ought to carry on the administration on lines unobjectionable. The Syndicate ought, as a matter of principle, insist that none of its members accept any work for which any emoluments are payable by the Syndicate. They ought to treat the members of the Senate with less suspicion, and make a far more liberal use of the educational talent within it and outside, for various duties which the Syndicate members now regard as incumbent upon them to do. There is then no need for such

a number of Committees composed of the same three or four men. Then the popular impression that the University run by these two or three will cease.

We agree with the Senate that a Faculty should ordinarily be represented by a member of that Faculty, but would insist at the same time that the Syndicate of an Indian University should have on it, if not an actual majority, at least an influential proportion of Indians. This is hardly possible if two colleges are enabled to have practically all the seats open to Indians. The Presidency College has at present only one Indian Professor or possibly two and we fear the Christian College none. In this state of educational tutelage it is impossible that Indian educational interests could be represented adequately by Indian educationists alone. It is certainly true that it has all along been in the hands of the Senate. The Senate has apparently done all along what was best, and that best has resulted in the third Madras college being quite left out without any influence, the mofussil colleges but poorly represented and Indian interests altogether neglected. Short of amending the Act the only course open to the Senate to take was to have adopted the line Indian members have. The remedy seems to us to lie in the Syndicate being reduced to the position of a purely administrative body leaving all the remunerative work of the University to be done by members of the University and the colleges affiliated to the University; to make the Faculties much less watertight than they are at present and make it impossible that the Indian element is adequately represented in respect of quality and number. On any fair view the Syndicate ought to do this on their own initiative, and

if they will not the Senate ought to keep on bringing in motions till they attain these objects of which there is no need to make any secrecy.

We congratulate the Senate on the satisfactory way in which they have at last remedied the injustice they had perpetrated at the expense of the law students. The reduction of the course to two years is indeed a blessing which loses much of its value since the evil it seeks to remedy is of too recent a creation by the Senate itself. However all is well that ends well. Other agenda taken up at this meeting do not call for remark except to express our satisfaction at the improvement one notices in the proceedings but for the few regrettable lapses that we have noticed in the course of these remarks. We should very much like to see, however, that there is very much more of the academic atmosphere in the Senate as a whole, and that some of the learned members do adopt in their speeches the manner as well as the matter that academic propriety requires. The tension that is but too clear, and the acrimonious feeling that breaks out at the slightest stimulus are hardly desirable on the one side or the other. It conduces but little either to the advancement of educational interests or to the prevalence of that harmony between the parties which, in a matter so vital as education is, is eminently to be desired.

The first meeting of the Mysore University Senate was opened, as we long ago announced, by His Highness The Maharaja of Mysore on the 12th October at 12 noon. We have published the whole

proceedings elsewhere. To judge from what appears here and other enquiry we have made of matters relating to this, from those who are bound to have first-hand knowledge of educational affairs in Mysore, we find it impossible to stretch our imagination far enough to reach the sublime heights of the Rev. Dr. Moulton to describe them as 'comic opera lines.' Mr. Denham's report is a sober statement of facts, which gives us clearly to understand that the University authorities are alive to the fact that much has yet to be done. They have set about doing all that may be needed to put matters in thorough order. It is now a period of transition. There is likely to be much that makes the working clumsy looking. The pre-collegiate and the second year classes are working. We have information that a commission has been appointed to go round inspecting the collegiate schools to bring them up to the requirements of University teaching. The number of endowments that have been made so soon, having regard to the poverty of the country, shows an enthusiasm in the people that would give the lie direct to the itinerant missionary's effusion about the Brahmanising of it.

The Vice-Chancellor's speech, though somewhat rambling in character and irrelevant in parts, still breathes a degree of enthusiasm and earnestness, that sometimes outruns discretion—he attempted to cover ground that was hardly called for. It does not require much justification in these days that Mysore should have a University of her own. He

indicated the lines along which it was intended to work the University and made an enthusiastic forecast of the great work that lies ahead to vindicate Indian learning in the eyes of the world. This can hardly be regarded as peculiar to the Mysore University but is the common aspiration, at any rate it ought to be, of all Indian Universities. A University in a Hindu State like that of Mysore, which could look upon itself in a way as the legitimate successor of the long-forgotten Empire of Vijaynagar, has opportunities for doing such work, as other Universities may not have in equal measure. All that one can wish in this connection is that there will be the width of sympathy and depth of wisdom in the directorate; the healthy earnestness and never-fading interest in those whose lot it is to realise this high ambition.

His Highness' reply exhibits a clearness of perception quite characteristic of him. He very properly pointed out that the movement is not one of hostility to Madras but of necessary natural evolution. He emphasized the importance of the knowledge of the languages of the country which were but likely to be too readily neglected. He gave what was a necessary assurance that the standard is not to be let down, as it was the impression in certain quarters including the Methodist Recorder which Dr. Moulton had taken into his confidence. We congratulate His Highness upon the courage with which he launched out this university and wish the University a very successful and prosperous career.

UNIVERSITY OF MADRAS.

THE SENATE MEETING.

An ordinary meeting of the Senate of the Madras University was held at 4.30 P.M. on Friday the 27th inst., the Hon'ble Sir P. S. Sivaswamy Iyer, Vice-Chancellor, presiding. There were fifty-four members present.

THE LATE MR. A. SUBRAMANIA IYER.

Before proceeding to the business on the agenda, it was resolved on the motion of the Hon'ble Mr. Stone, seconded by Sir V. C. Desikachariar, that the Registrar should write to the family of the late Mr. A. Subramania Iyer, for very long a Professor of the Presidency College and a member of the Senate, expressing their sorrow at Mr. Subramania Iyer's death.

Questions.

By MR. K. B. RAMANATHAN.

Q.—In the report of the proceedings of the Senate regarding the Standing Orders regulating the work of the University Professors, the Vice-Chancellor refers to one of the items—that regarding the ex-officio Chairmanship of the Board of Studies in Sanskrit—as having been withdrawn by the permission of the Syndicate.—How was the permission accorded? Was it at a meeting of the Syndicate held expressly for the purpose? Or was the consent of the individual members of the Syndicate obtained by circulation of the papers?

A.—The permission of the Syndicate was not accorded at a meeting or by the circulation of papers, but Clause I—B under II Special—of the orders relating to University Professors was withdrawn, as being inconsistent with the Regulations, at the instance of the Vice-Chancellor after the sense of several members of the Syndicate had been ascertained and in anticipation of unanimous approval. All the members of the Syndicate were present when the clause was withdrawn. None of them dissented at the time, and no member of the Syndicate has objected since. It may be added that the clause did not originate with the Syndicate, but was a former resolution of the Senate incorporated by the Syndicate in the orders. Apart from its irregularity it was understood that the clause was strongly disapproved by a considerable section of the Senate, and that its withdrawal would be readily assented to by all.

By DIWAN BR. L. A. GOVINDARAGHA A IYAR.

Q. 1.—Will the Syndicate kindly state whether there are any rules framed by the Syndicate, regulating the choice of subjects either for

lectures or research work by the University Professors?

A.—There are no such rules.

Q. 2.—Will the Syndicate kindly state whether the University lectures by Mr. Daniel Jones have been preserved in any form and if so what?

A.—The lectures have not been preserved.

Q. 3.—Will the Syndicate kindly state whether any provisions have been made in the rules regulating the appointment of the University Professors by which they are required to submit a syllabus of the lectures to be delivered by the University Professor or the programme of the research work to be done by them?

A.—No such provisions have been made.

Q. 4 (a)—Will the Syndicate kindly state whether the report of the Syndicate circulated to the members of the Senate on the failures in the recent Intermediate Examination and related matters dated July 19, 1916, was adopted by the Syndicate in circulation or at any meeting? (b) Will the Syndicate kindly state whether it was adopted unanimously or by a majority and if, by a majority, how many were for the report and how many, against it and how many, neutral?

A.—The report was not adopted by the Syndicate either in circulation or at any meeting.

At its adjourned meeting held on July 12, 1916, the Syndicate considered the causes of the heavy failure in the Intermediate Examination of 1916 and the possibility of any remedies for the same. It had before it:—(1) the reports of the Special Matriculation and Intermediate Boards; (2) the statistical tables of the Intermediate Examination usually printed in the Syndicate Report; (3) letters from the Chairman, General Board of Examiners in Chemistry, forwarding reports from the Chief Examiners who set papers I and II in Chemistry for the examination; (4) letters from the Chairman of Examiners in English forwarding the reports received from the Chief Examiners in English in connection with the examination; and (5) a letter from the Chairman of the Board of Examiners in English as to the knowledge shown in English by candidates at the recent Intermediate Examination. The Syndicate considered the subject very carefully and after full discussion appointed two of its members to prepare a report in conformity with the views of the Syndicate as expressed at the meeting. No member of the Syndicate has since dissented from any statement in the report after it was printed and issued to the members of the Senate.

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Q. 4 (c)—Will the Syndicate kindly state the rules governing the Special Moderating Board referred to, in the said report?

A.—The duties and functions of the Special Moderating Intermediate Board are included in the printed confidential instructions issued annually to Examiners.

Q. 4 (d)—Will the Syndicate kindly state whether and special instructions were issued to the Special Moderating Board or individual Boards of Examiners regarding the passing of students in the recent Intermediate Examination or any of the subjects therein; and if so what?

A.—No such special instructions were issued.

Q. 4 (e)—Will the Syndicate kindly state whether any students were passed in the recent Intermediate Examination over and above the students that had passed in the ordinary course, and if so, how many, and in what subjects they had to be given concessions?

A.—The question cannot be answered consistently with the interests of the University.

The Annual Report.

The Syndicate then presented its annual report for the period extending from August 1, 1915, to July 31, 1916.

RECENT MANDAMUS APPLICATIONS AGAINST THE SYNDICATE.

Dr. Nair moved the following resolution:—That, as the Senate has reasons to believe that in opposing the recent Mandamus applications before the High Court, the Syndicate has unwisely put the University to unnecessary expense, the Senate resolves to call up on the Syndicate to explain fully their action in the matter, and to receive a special sanction from the Senate for all expenditure in connection with the opposing of those applications.

In doing so he said that this was the first time that the Syndicate had been dragged to a Court of Law. They had all seen the disastrous consequences following perpetual litigation. Simultaneously with the publication of the notice of this resolution, the statement of the Syndicate explaining the action which they judged right to take in the matter of the protests lodged by Messrs. G. A. Natesan and K. B. Ramanathan was also published. There were two or three points which were brought forward in that statement and which had been discussed in the Court of Law, and upon which the Syndicate were supposed to have come to the conclusion that it was

necessary to defend the action. It was stated that the protest of Mr. Natesan was practically against the ruling of the Vice-Chancellor. Mr. Natesan pointed out time after time that it was not a protest against the ruling of the Vice-Chancellor, but against the resolution of the Senate and that in bringing forward his argument he utilised that fact as an additional argument. The two Judges of the High Court also took that view. If the protest was against the ruling of the Vice-Chancellor, it would ask the Government to change that ruling. The Syndicate's explanation was not quite convincing. The fact of the ruling of the Vice-Chancellor was only incidentally mentioned. If the attitude of the Syndicate was that even the name of the Vice-Chancellor should not be mentioned, it was an unreasonable attitude. In the next paragraph of the statement it was said that the Syndicate should use their discretion what matter should be sent up and what need not be sent up. He the speaker said that the Syndicate had no discretion whatever in the selection of matter. In this connection he would read the passage in the Judgment of Mr. Justice Kumaraswami Sastri. It was as follows:—"The case is, however, different where a public body erroneously assumes that it has a discretion which it does not possess in law and then seeks to defend an application for Mandamus on the ground that it has exercised a discretion which Courts ought not to review. I am of opinion that so far as the facts of the present case go, the Syndicate had no power to require Mr. Natesan to omit or add anything to his protest and that their duty was to have received the protest and proceed under Regulation 64 and forward it and the memorandum drawn up by the members selected by the Senate, in favour of the proposition, to the Government for their orders." The Syndicate had no discretion to act as a censor as to the quality and quantity of the protest. The Syndicate assumed that they ought to have power to curtail the volume of the protest and to go into the matter and say which protests ought to be sent to Government and which protest ought not to be sent. That was against Regulation 64.

Again the Syndicate said they mainly acted on the advice of the Vice-Chancellor, Sir John Wallis. Undoubtedly his advice was the best legal advice they could get. But he, a High Court Judge, could not act as a legal adviser. He was one of the party concerned and he certainly would know that "a man who is his own lawyer has a fool for his client." It was how the matter stood and Sir John Wallis could not have

asked the Syndicate to have taken his legal opinion. When the members of the Syndicate came to a question of law they ought to have had recourse to a lawyer in whom they had confidence. Did they do such a thing? It was a plain question which required a plain answer. If a man did not take the ordinary precaution and if he went into the Court of Law and lost his case he had only to blame himself. A private man might do it and pay out of his pocket. A public body had no right to do like that. He would like to have a brief review of the chronological events that took place since the time when Sir John Wallis ceased to be the Vice-Chancellor. Was there any discussion on the subject since Sir Sivaswamy Aiyer became the Vice-Chancellor? If so, he the speaker would like to know if the present Vice-Chancellor tendered the same advice as Sir John Wallis did or a contrary advice. On that point the Syndicate was perfectly silent. The Syndicate said that they carefully thought out the matter and acted in the best interests of the University. All he said was that if the Syndicate would go on rushing into a Court of Law without taking legal advice, the University will soon run down the funds like all other public bodies which had suffered financially in similar circumstances. If no restriction was put upon the action of the Syndicate in matters like that, the University would suffer heavily financially.

It was further stated that under the advice of Sir John Wallis they went to Court to get a judicial pronouncement to prevent similar differences of opinion between individual Fellows and the Syndicate from arising in the future. No body would like to get a judicial pronouncement at his own expense. The Syndicate went into the Court with the deliberate intention of getting a judicial pronouncement on the subject. What did they find in the Judgment? They found in the judgment of Mr. Justice Coutts-Trotter "The Advocate General points out that our powers under the Act are discretionary, as they undoubtedly are, and asks us not to exercise them in favour of the present applicant, apparently on two grounds. The first is that this is not a matter of any public importance. The second is that to grant the rule would be to encourage innumerable frivolous applications of a similar nature in future. I know of no standard or criticism whereby to measure what is or is not of public importance; it is a question which every one must decide for himself in each particular case and, I can only say that this appears to me a matter of very considerable public

importance. The topics dealt with by the resolutions were of vital educational interest and the right of protest vested in the applicant was a right valuable to himself and to the University. As to the other argument I must confess myself utterly unable to follow the reasoning which seeks to say that you must not give effect to a just claim, because you will encourage others to make unjust ones." That conclusively proved that the Syndicate had not a good case, not even a doubtful case. If they had taken proper legal advice and the legal advice happened to be wrong, the Syndicate were not to blame at all. If they did not take proper legal advice, they did a very serious mistake attended with heavy cost. As regards the past loss the University would bear for the mistake of the Syndicate. The Senate did not want a repetition of the mistake and wanted to impress on the members of the Syndicate that going to a Court of Law without proper legal advice was a dangerous course. Men in public position dealing with public funds ought to be a great deal more careful than private persons in going to a Court of Law.

RAO BAHADUR T. VIJJIARAGHAVA CHARIAR.

In seconding the proposition Mr. Vijjiaraghava Chariar said that he felt very great sympathy with the Syndicate in the matter. He had had a good deal to do with official explanations and in most cases the officials' cases would have been very much better without those explanations. Similarly the Syndicate's case would have been very much better without the explanation. The Syndicate thought that it was a piece of threat for Mr. Natesan to come forward. Then they found he took them at their word and came to Court. From Dr. Nair's remarks he understood that Dr. Nair felt that it was proper that the Senate had discussion over the matter, so that further difficulties might not arise.

THE HON. MR. J. H. STONE.

The Hon'ble Mr. J. H. Stone said that if the matter was going to be debated upon he should like to dwell on the merits of the case. He would ask the members of the Senate to notice the terms in which Mr. Natesan's protest was couched. Mr. Natesan began by saying that the Vice-Chancellor was wrong in his ruling. Then Mr. Natesan proceeded to say that the Vice-Chancellor was further wrong, etc. Mr. Natesan deliberately raised the question as to the rightness or wrongness of the Vice-Chancellor's ruling. He the speaker understood that the protest was brought forward on the ground of the Vice-Chancellor's

ruling. If the Vice-Chancellor had not made that ruling, the discussion would not have taken that turn. By stating that the Vice-Chancellor was wrong Mr. Natesan put it in the power of Government to pronounce as to whether the Vice-Chancellor was wrong or not. He the speaker did not see how Government in dealing with the protest, as it stood, could possibly give an opinion as to whether the Vice-Chancellor was wrong or right. If the Government was perforce obliged to face the question and decide upon it, it seemed to him that the protest was doing what one of the regulations said was not to be done. They were calling into question the action of the Vice-Chancellor before Government who had nothing to do with the Vice-Chancellor in the matter, for a pronouncement whether the action of the Vice-Chancellor was right or wrong. It could not be said that the Syndicate had no case at all. Of course they might have taken the opinion of a lawyer and paid him for it before going into Court. He did not know how their position would be further advanced. Whether the High Court decided the matter rightly or wrongly the Syndicate thought they were merely discharging their duty to the University, a duty however unpleasant, to go into Court. Dr. Nair wished to give advice to the Syndicate as to what they should do in the future. Legal actions against the Syndicate would not occur in any short space of time. It was unlikely that the Syndicate would be dragging Fellows of the Senate and leave them before Courts. The members of the Syndicate were not law-breakers by nature. They had to be careful about their legal steps and he hoped that the Senate would let the matter drop and go into the rest of the items on the agenda. He asked the Senate whether they could not do that.

MR. MARK HUNTER.

Mr. Mark Hunter liked to know what Dr. Nair wanted. The Syndicate had put before the Senate an explanation of their conduct. Did Dr. Nair expect the Syndicate to give any further explanation? The resolution was practically a vote of censure on the Syndicate. He did not quite take up the position as Mr. Stone did. The Syndicate did their duty. They were never before dragged to a Court of Law and they hoped that the members of the Senate would not regard the regulations as a matter upon which they would go to a Court of Law but endeavour to interpret them in a liberal and academic spirit. If every member of the Senate dissatisfied with the ruling of the Vice-Chancellor were to put in a protest, there would be no end to such things.

Messrs. Natesan and Ramanathan set a very bad example in dragging the Syndicate to a Court of Law against the action of the late Vice-Chancellor who had served the University for very many years. He the speaker, did not congratulate those two gentlemen, but commiserated with them. A more ungenerous thing was not possible. The resolution was practically a vote of censure on the Syndicate. If the resolution was passed, he did not know whether the members of the Syndicate would continue to do their duty.

MR. NATESAN.

Mr. G. A. Natesan said that Mr. Hunter had aggravated the offence of the Syndicate by a very extraordinary speech. Mr. Hunter was absolutely impenitent. Mr. Hunter said that Messrs. Natesan and Ramanathan ought to be ashamed of the course they had pursued. In addition to his impenitence, Mr. Hunter had also the impertinence to say that. They had all read the records in the case and the full text of the judgments, and heard the comments of Mr. Vijjiaraghavachari that the Syndicate's explanation was making the matter worse. Still Mr. Hunter deliberately got up in the Senate and charged the Fellows who wanted to vindicate the elementary rights of a Fellow which the Syndicate in its arrogance denied them. That was a proceeding unworthy of Mr. Hunter who was so anxious to vindicate the action of the Syndicate. He the speaker wanted the dignity of the Senate should be preserved. After hearing the Hon'ble Mr. Stone that the matter should be dropped, he did not want to speak. But it was impossible not to speak after the provocation of Mr. Hunter. He the speaker was justified in supporting the proposition to teach the Syndicate a lesson which they very much deserved.

MR. RAMANATHAN.

Mr. K. B. Ramanathan said that he had every right to protest and he went into Court with a full sense of responsibility. It was public money that the Syndicate were going to pay in the matter of this litigation. If the applicants had lost their case, they would have paid it and they were deliberately prepared to run the risk. It was not open to an influential member of the Syndicate like Mr. Hunter to say to a Senator that he commiserated with him. If the Syndicate had won the case, it would have been a disastrous victory.

MR. HODGSON.

Mr. Hodgson strongly supported Mr. Stone's proposal and proposed that the meeting should pass on to the next Resolution.

SIR V. C. DESIKACHARIAR.

Sir V. C. Desikachariar in seconding the proposition said that, Dr. Nair in his Resolution referred only to the expenditure incurred in the passing of the "Mandamus" application. They had seen the Syndicate's explanation. No useful purpose could be served by pressing Dr. Nair's proposition.

Vice-Chancellor:—I wish to know whether Dr. Nair considers it necessary to proceed with this motion. I think his object is gained.

DR. NAIR.

With the permission of the Vice-Chancellor, Dr. Nair said that the one point on which he spoke was why proper legal advice was not taken before the Syndicate wanted to spend the money of the University (public money). No explanation was given by Mr. Stone. His resolution simply asked the Syndicate not to prosecute or defend without taking proper legal advice. Mr. Hunter said that the Syndicate had done everything in the matter. Mr. Stone said they did not think it necessary to take legal advice. If that was the attitude of the Syndicate, they would have many more applications for "Mandamus" and writ of "certiorari." It was said the Fellows should interpret regulations in an academic spirit. Mr. Hunter was the last gentleman who displayed that academic spirit. If he went on in a militant spirit their should not be any blame against those who brought action against the Syndicate. If Mr. Hunter and other members of the Syndicate would display the same academic spirit, there would not be any litigation in future. They should not defy any body and say that the Syndicate was right in their view. The members of the Syndicate should modify their ways. In conclusion he begged to withdraw the resolution.

The resolution was by leave withdrawn.

ASSIGNMENT OF FELLOWS TO FACULTIES.

On the motion of Mr. B. Hanumantha Rao, seconded by Mr. K. R. Guruswami Iyer, the following ex-officio and nominated Fellows be assigned to the Faculties as under:—

Faculty of Arts.—The Hon'ble Mr. H. F. W. Gillman, I.C.S., The Rev. Meston, M.A., B.D., The Rev. Thomas, B.A., Mr. Hydari.

Faculty of Law.—The Hon'ble Sir John Wallis, Kt., M.A., Bar-at-Law, The Hon'ble Mr. Justice F. D. P. Oldfield, I.C.S., Mr. H. S. Chatfield, B.A., Bar-at-Law.

EXEMPTIONS FROM PRODUCTION OF ATTENDANCE CERTIFICATES.

Mr. W. H. James then moved that certain candidates for certain examinations be exempted from the production of the required attendance certificates.

Mr. Mark Hunter seconded the motion.

Dr. T. M. Nair enquired if there were any general principles on which exemptions were recommended; to which Mr. James replied that it was impossible to have adequate strict general principles, but as far as possible there were general principles.

The motion was carried.

Date of Honours Degree Examination.

The Syndicate then reported to the Senate under Regulation 96 (vi) that it has been arranged to antedate the B.A. [Honours] Degree Final Examination of 1917, so as to commence on Monday, March 26, 1917, instead of on April 2, 1917, the date fixed by the Regulations, so as to avoid the break in the examination of six days in consequence of Easter Holidays, should the examination commence on the latter date.

The B. Sc. Degree.

THE COMMITTEE'S REPORT.

The Syndicate then placed before the Senate an Interim Report of the Committee of the Senate appointed on July 22, 1916, to consider and report upon the advisability of instituting a Faculty of Science and a B. Sc. Degree, the general nature of the Course of Study for this degree, and to submit proposals regarding the suggested Faculty of Science and B. Sc. Degree, should the Committee consider it advisable to do so.

DR. SIMONSEN.

In accordance with the report Dr. J. L. Simonsen moved on behalf of the Senate Committee:— [1] That a Bachelor of Science Course and Degree "be instituted." [2] That the existing Regulation and parts of Regulations dealing with Groups (i), (ii-A), (ii-B) and (iii) "be abolished." [3] That the Final Course of Study for the B. Sc. Degree shall consist of any three of the following subjects:—Mathematics, Physics, Chemistry, Botany, Zoology and Geology and a course in English similar to that prescribed at present for the Preliminary Honours Examination. [4] That the Preliminary Examination in English in the B. Sc. course may be taken at the end of the first year's course or at any time thereafter. [5] That the subjects of the B.Sc. course

shall be of equal value and the standard in each shall be approximately the same as that of the subject taken as the main subject in the present B. A. Degree course. [6] That the Intermediate in Arts be called the Intermediate in Arts and Sciences. [7] That the Board of Studies be requested to draw up syllabuses in the several subjects of the B.Sc. course for the consideration of the Committee. [8] That the B. Sc. Honours Courses in Mathematics, Physics and Chemistry be identical with the B.A. Honours Courses in these subjects. [9] That a candidate for the B.Sc. Honours Degree in Botany, Zoology or Geology shall take any one of these as his main subject and any two other subjects of the B.Sc. course as subsidiary subjects he shall be required to pass the B.Sc. Examination in his subsidiary subjects at the end of his second year. [10] That the Degree of Master of Science may be conferred on any Graduate in B.Sc. Honours under the following conditions:—[i] He shall work after graduation for not less than one year under the direction of a Professor of an affiliated college or other person approved by the Syndicate. [ii] He shall submit a thesis of original work done which shall be approved by each of three independent judges nominated by the Syndicate. [11] That the present Faculty of Arts be hereafter called the Faculty of Arts and Sciences. [12] That the Committee be reappointed to draft the necessary Regulations on receipts of the syllabuses from the Boards of Studies and report to a future meeting of the Senate.

In doing so, Dr. Simonsen emphasised the importance of Science in these days and said the working of the present B.A. Pass Degree in Science—he did not speak of the Honours degree—was unsatisfactory. Firstly, with the present Arts course English formed half the course and Science was only a secondary part of the course. They had no desire to attack the study of English and its place in liberal education; but they desired to give an all-round training in Science and to see that Science was not relegated to a secondary place. Secondly, the Pass Course had two Science subjects, one of them, main and one secondary. That was unsatisfactory and under that system the course in Science could never be as complete, or as wide as they desired. Passing on to the question of the removal of Science from the Arts course, he said the minority report of the Committee to consider the question was against it. That was due to a misapprehension on their part. The mover and those who agreed with him in the Committee did not intend, as the minority thought, to train specialists in Science as they would notice from

proposition. 5 of his motion, which stated that they would teach only up to the Pass standard. The ordinary man who went up to the University, who was not good enough for an Honours Degree, who would go out into the world with an all-round training in Science—not specialists in any sense—but men having a training which was gained by the study of Science—those they would train in the B.Sc. course. That would tend to a wider diffusion of knowledge and they would not lower the standard. Those, on the other hand, who were going out into life to teach Science in the Universities, to fill posts of Scientific Research, posts of research in Government service—those men were catered for in the Honours course corresponding to the men in the Engineering College and the Medical College. The proposed B.Sc. men would go out into the world as men of the world, either as schoolmasters, or clerk or business-men or lawyers or into various other walks of life. As regards the removal of Mathematics from the Arts course, the Committee felt some doubt. Mathematics, at present, consisted very largely of Applied Mathematics and it was doubted if a course of pure Mathematics should be drawn up suitable to an Arts degree. Their reason for removing it related to the timetable difficulty in arranging for both B. A. and B. Sc. courses in the subject. A large number of colleges would be compelled by the force of public opinion to provide for the B. Sc. and B.A. courses and the time-table difficulty that would arise would be considerable. Passing on to the question of the standard of subjects, Dr. Simonsen said that all the subjects taken should be of the same standard; for otherwise there would only be an appearance of specialisation without specialisation. They had the same time devoted to the studies as the pass course so that the same standard could be provided for in all three subjects. There would also be some order in the grouping of subjects according to their natural relation. The speaker then passed on to the M. Sc. degree. The highest duty of any University, he said, was to encourage research. He asked what the Madras University had done in the past in this respect. If the Honours degree was taken, more time had to elapse before getting the Master's degree. They considered that something more should be required and that it should be necessary for a candidate to present to the University on application for a higher degree a thesis. They did not expect, even of the best of their students, to originate a thesis. They had to learn research work as they had to learn any other thing in

collaboration* with the Professor or in some research institute, for instance, Coimbatore Agricultural College, and he was sure that that suggestion for encouraging research would meet with the approval of the University.

Mr. P. F. Fyson seconded the motion.

AN AMENDMENT.

Mr. P. V. Seshu Iyer then moved an amendment to proposition 2 that (i) following the word 'Groups' be omitted. In doing so, he regretted there was no representative of Mathematics in the Committee when the question was considered by them. His amendment would retain Mathematics in the Arts course as well, while it should find a place in the B. Sc. course also. The broad principles on which the division was based was that all sciences which dealt with the physical and natural phenomena should be included in the B. Sc. subjects and that all other subjects should find a place in the Arts course. If that was the criterion, then pure Mathematics should be placed on the Arts course. He differed from the Committee in thinking that much of the Mathematics taught in the Arts course now was—Applied Mathematics. Possibly, they did not know what was exactly obtaining. They were now teaching pure Mathematics as much as mixed Mathematics and recently the Board of Studies had made some recommendations suggesting the inclusion of more theoretical subjects, such as differential and integral calculus. Again, if they excluded Mathematics from the Arts course they would find the choice of subjects for the Arts Course unduly narrowed. He then pointed out that great men such as Sir Gurudas Banerjee, Sir Ashutosh Mukherjee, Mr. Justice Seshagiri Iyer and others had found a knowledge of Mathematics extremely useful and they continued to this day to take an interest in its study. It would be moreover hard to compel students who had a bend towards Mathematics, but not Science, to take either Science or History or Philosophy. He had read calendars of the British, Colonial and Indian Universities, of the new as well as of the old type and he found that in all these, Mathematics formed part of both B. Sc. and the Arts courses. He also added that he had the support of all those engaged in the teaching of Mathematics except Mr. Littlehailes whom he had not the opportunity of consulting as he was away.

Mr. V. Ramesan Pantulu seconded the amendment. He pointed out how many great men had interested themselves in and benefited by the study of pure Mathematics and said that he

would be sorry if students who had a bend of mind to theoretical Mathematics were compelled to take up other subjects. As an intellectual discipline it was invaluable and it was the theoretical aspect that was taught them even when the subject went by the name of applied Mathematics.

The Rev. Allan F. Gardiner supporting the amendment said that the argument that Mathematics should be associated to Science was of course no argument whatever as to why Arts should be deprived of Mathematics. The suggestion had been made that the present course of Mathematics was largely applied; but in recent years there was an immense amount of higher research in pure Mathematics which was of the philosophic region of the mind and had no immediate relation to experimental sciences at all. Its influence on judgment in general was very wide and very powerful. He thought the arguments that had been brought forward might be taken as showing the necessity for the reconstruction of the course for the Mathematics degree, but were no reasons for the abolition of Mathematics in the Arts course.

Mr. Davis also supported the amendment.

Mr. Statham supporting the amendment said that while he was heartily in favour of a B. Sc. course the abolition of Mathematics in the Arts course would deprive his college of many students.

Mr. Littlehailes said that although he did not agree to all that was expressed about applied Mathematics and pure mathematics, he would agree to the amendment on the assumption that a large number of alterations will be made in the syllabus of Pass Course Mathematics.

Mr. L. A. Govindaraghava Iyer pointed out a difficulty in the way of abolition. Regulation 204 stated that a candidate for the Honours who failed to satisfy the examiners for an Honours degree might yet get a pass degree if he had a certain percentage of marks, and how could they satisfy that regulation if they abolished the Pass degree?

Mr. K. B. Ramanathan at this stage moved that the whole thing be referred back to the Committee. This was duly seconded.

Sir V. C. Desikachariar and Mr. Macphail said that that would be waste of time. It was suggested that they should vote on the first proposition and reject the second.

The Rev. Father Bertram pointed out that before they voted for the first, the B. Sc. course, the consequences in future would have to be con-

sidered. There were serious consequences if they voted for it. Every college that now taught Science subjects would have to be affiliated in three groups at least. There were twelve colleges at present affiliated in one or more of Science subjects. There were four affiliated in one group, four in two groups and of the remaining colleges 3 were affiliated in three groups and only one was the Presidency College. If the B. Sc. were instituted four would have to seek affiliation in two groups. Could they expect them to be ready before many years? He was afraid that those four colleges would have to close for the Science branch. In the rest of the colleges there would be an immediate demand for affiliation in three subjects. They would have to satisfy that demand which was very difficult. That alone would not be enough. They should give the students choice. That was a certain hardship on the students as well as on the colleges, and he was afraid that the consequences of that would be a set-back. But that was not all. As matters stood he could have one set of students in Chemistry, one in Physics, and so on. But under the B. Sc. they could have only one set of students. Supposing there were three groups in a college, that college, under the B. Sc., could admit only 20 students, where at present they admitted 50 or more. The number of colleges being diminished, the number of admissions also being lowered, what, he asked, would become of the students? There would be no provision for them at all and they would have to be in the streets. He concluded by inviting the earnest consideration of the Senate to these serious consequences.

Mr. Ramanujachariar (Vizianagaram) pointed out that his college was affiliated in Chemistry after spending a lakh and that if the B. Sc. exclusively was decided upon they would have to close down the Science branch.

The Hon'ble Mr. J. H. Stone confessed that after hearing the explanations he was quite unable to vote for the abolition of Mathematics and Science for the Arts course. They might have the B. Sc. degree for such of the colleges as were strong in Science, leaving the other colleges to go on with Arts degrees with Science subjects. It would be a matter of some time before all the colleges were sufficiently equipped to take up the B. Sc. course. He would therefore suggest the passing of proposition 1 and the rejection of proposition 2.

After some discussion Mr. Ramanathan withdrew his motion and the suggestion of Mr. Stone was agreed to. Mr. Seshu Iyer's amendment was at the same time dropped.

ANOTHER AMENDMENT.

Mr. Seshu Iyer next moved the following amendment to proposition 5: "That of the subjects of the B. Sc. course, one shall be main and the other two subsidiary; the standard in the main subject shall be somewhat higher than the standard in that subject taken as the main subject in the present B. A. degree course; and the standard in each of the subsidiary subjects shall be the same as the standard in that subject taken as a subsidiary subject in the present B. A. degree course; and in Mathematics, which is not prescribed as a subsidiary subject in the present B. A. degree course, a standard similar to that in the other subsidiary subject shall be fixed."

In doing so he said that, firstly, students had no equal aptitude for all subjects alike. Secondly, the course would be too heavy for two years, if the present standard of the Pass Course be retained. If the standard were lowered, there would not be enough of specialisation to justify a special B. Sc. degree. Prof. Ross had told him that a B. Sc. man under the proposed conditions, would not be able to teach Mathematics for the VI Form and he asked of what use would a degree with such a standard be. Fourthly, the colleges could not come up to the same standard in all the subjects. Fifthly, the practice of obtaining in other Universities, British, Colonial and Indian except the Calcutta University was according to his amendment Mr. Moffat seconded it.

Mr. Fyson in opposing said that as regards aptitude, the students might show it in the degree of knowledge obtained in any subject, for instance, a student with a bend towards Physics might get 80 per cent. in that subject but could be satisfied with 30 per cent. in others which was the minimum. The division into main and subsidiary was beset with great practical difficulties as he found from experience and students found no time to attend all lectures.

Mr. Macphail opposed it on the ground that it would lead to a multiplication of courses which ought to be deprecated.

After some more discussion the amendment was put a vote and lost.

At this stage Dr. Simonsen stated that he would accept the amendments of Mr. G. Venkataranga Row to substitute 'Boards of Studies concerned' for 'Board of Studies' in proposition 7.

and that of Lt.-Col. Miller to proposition 12 suggesting the addition of the name of Mr. P. V. Seshu Iyer to the Committee referred to in that.

The propositions were then put to vote one by one and all were passed except the second which was, as agreed before, rejected.

As it was 7 P.M. Dr. Nair moved for an adjournment till 3 P.M. to-morrow and Mr. Azizuddin Sahib Bahadur seconded it.

37 voted for and 37 against. The Vice-Chancellor giving his vote for adjournment, the meeting was adjourned accordingly.

The Senate resumed its sitting on Saturday the 28th inst. at 3 P.M. Mr. Justice Seshagiri Aiyar asked if his proposition No. 16 could be taken up earlier. Some Fellows of the Senate objecting to that procedure, he did not press it.

Rev. J. H. MOULTON.

The Hon'ble Mr. J. H. Stone moved for the sanction of the Senate to make arrangements with the approval of Government for a course of special University lectures on Aryan Antiquities to be delivered in Madras by the Rev. J. H. Moulton, Professor of Comparative Philology in the University of Manchester, the cost of the lectures to be defrayed from the annual recurring grant of Rs. 65,000 by the Government of India. In doing so, Mr. Stone said that Professor Moulton was a distinguished Professor of Manchester University and there was nothing out of the way in the Syndicate deciding that it would be desirable to secure the course of lectures from Dr. Moulton and to take advantage of the fact that he would be soon in Madras. The scope of the lectures as defined by him was not very well indicated by the title. The lectures would be on philological points. They would not deal with history of religions and comparative study of religions. They would seek to give evidence bearing on the origin of the Indo-European races. They had reason to think that the Professor would be able to deliver a course of lectures which would be of very great interest and value. He did not pretend to be ignorant of the circumstances which had led some people to think that it was not desirable that the Professor should lecture in this University. He was also aware that that opinion was not only held by Indian Fellows of the Senate but also by people outside. He was quite sure himself that if the professor lectured in this University, he would give no ground for criticism as to the way in which he would analyse the subject. The subject was not

very directly connected with religion in any way. If he was to mention or take any account of religious beliefs, it would be merely such things as would throw light upon the subject of the origin of the Indo-European races. So far as any practical difficulty went, he did not believe that existed. He felt sure that the Professor would not say anything which could be in the smallest degree objected to by any person of any race or creed. At the same time he knew there was a strong feeling in many quarters against Dr. Moulton being appointed lecturer. He did not feel in the very peculiar circumstances that had arisen, that he could press upon the Senate so emphatically, as he should like to be able to do, the acceptance of that resolution. He felt he should move it and he would leave it to the Senate to decide upon, as they saw fit. He hoped the members would do their best to divest their minds of prejudice. After all what they wanted to do was to secure lecturers for the University who would be able to enlighten them and they should not allow the fact of the lecturer who was a professor in a particular field of thought to influence them in appointing him.

Mr. Hodgson seconded the resolution.

Mr. C. P. RAMASWAMY AIYER.

Mr. C. P. Ramaswamy Aiyer in opposing the motion said that he was fully alive to the responsibility of so doing. He quite associated himself with what had fallen from the Hon'ble Mr. Stone, that the proposition ought to be approached without prejudice. It was difficult for him having regard to the circumstances of the case to do so very successfully. However he would endeavour to do so. They were called upon to vote upon a proposition that a certain gentleman ought to be allowed to deliver special University lectures on Aryan Antiquities. It might be that the course of the lectures to be delivered by Rev. Mr. Moulton did not touch upon any controversial topics. It might further be that the religious prejudices which he might have entertained, might not be allowed to play in those lectures. But that was hardly the point. The question before the house, a question on which most of the Fellows on his side of the house felt very strongly and poignantly was, were they to give sanction to expenditure of the University funds in respect of an Indian University, for the payments to a gentleman who had not disguised his feelings towards the religion of this country and towards many other institutions of the country. He would not and he did not desire to exaggerate the matter. They all knew how

Rev. Moulton had described the "Chamundi tutelary deity" of His Highness the Maharajah of Mysore and how he had written disparagingly of the Mysore University. It was not a question of what he would lecture upon, but it was a question whether they were going to subsidise a man who held such a view of the people of this country. He felt that this University would be stultifying itself if its sanction to University lectureship was granted to that gentleman, who had not made a secret of his views. His professed views were absolutely abhorrent to them.

REV. PITTENDRIGH.

The Hon'ble Rev. Pittendrigh said that it was very undesirable to bring up that resolution to vote at all. Rev. Mr. Moulton would be an excellent lecturer; at the same time he, the speaker, thought that the Syndicate might be well advised not to suggest his name at all and might withdraw the resolution seeing there was a very considerable opposition to it.

MR. HODGSON.

Mr. Hodgson said no man should be condemned unheard. Rev. Moulton had not been asked for an explanation of the writings. They should not condemn him without knowing what he had to say upon the subject. If they did so, they would be doing him injustice. It was quite possible that his article was really written as a private letter to friends who without feeling any responsibility published them. If that was the case, he would certainly ask what right the Senate had to take notice of it? A person was privileged to write anything in a private letter. It would be grossly unfair if Rev. Moulton was condemned in that matter without being given an opportunity of offering some explanation.

MR. NATESAN.

Mr. G. A. Natesan wondered why the Hon'ble Mr. Stone thought it desirable to move this proposition. His speech was very halting and hesitating. He said that the members of the Senate should divest themselves of prejudices in approaching this question. He, the speaker, would like to assure the house that the question involved was not one of religion but of self-respect of the large community of the Hindus. Dr. Moulton had openly sneered at and contemptuously attacked Indian institutions and Indian religious views.

Mr. B. Hanumantha Rao interrupting said that the meeting pass on to the next resolution.

Mr. Natesan continuing said that it was most desirable to press the question. Even if Dr.

Moulton's letter published in the newspaper was a private one, still it brought out the man's views. The Indian University existed to give proper instruction to Indian students and to inculcate in them due regard to the religious beliefs of their ancestors. A man of Dr. Moulton's stamp who spoke disparagingly of things Indian should not be encouraged by an Indian University and he would beg the Hon'ble Mr. Stone to withdraw the resolution. He did not know why the Hon'ble Mr. Stone was asked to move the proposition.

Rev. Macphail moved that under Regulation 22 Section 3 that the meeting pass on to the next business on the agenda paper and this was duly seconded and carried.

ELECTION OF THE SYNDICATE.

Lt.-Col. Miller moved certain alterations in the regulations providing for the election of the Syndicate partly by the Senate and partly by Faculties presented by the Syndicate in accordance with the resolution of the Senate passed at its meeting held on July 22, 1916, be adopted by the Senate. He said that the intention of the resolution passed in July last was to secure a real representation by the Faculties. It was not expressly suggested that the Faculty of Law should elect Lawyers, the Faculty of Engineering should elect Engineers and so on. The one aim was that there should be real Faculty representation. Hence the last part of Regulation 88 was "Every member elected by a Faculty shall be a member of that Faculty." The first part naturally followed, namely, "At least six of the members elected by the Senate shall be Heads of, or Professors in colleges affiliated to, the University." Regulations 89, 89-A, 93, and 94 related to the term of the office of the elected member and contained certain instructions to the Registrar.

Rev. Father Quinn seconded the resolution.

Before Mr. Natesan proceeded to move his amendment, Rev. Macphail suggested certain verbal alterations according to Bye-law 42 which were accepted by Mr. Natesan.

Mr. Natesan in moving his amendment to first part of Regulation 88 said that the Syndicate was instructed to make consequential amendments in accordance with the resolution passed at the last meeting of the Senate. Instead of doing that, the Syndicate had made great deviations in principle, a deviation of a very extraordinary character. The strength of the Syndicate was increased from 10 to 12. In accordance with the provisions they should simply increase the number of Heads or

Professors in colleges from 5 to 6. That would be the usual change under the authority given to them. The Syndicate went far beyond even the provisions of the Indian Universities Act. The Syndicate taking advantage of the opportunity to revise the regulations proposed the amendments which were calculated to defeat the essential objects. The result of that would be that instead of 6 out of 12 there would be 6 out of 7 members who would be Heads or Professors of colleges. The principle was that not less than one half of the elected members of the Syndicate should be Professors or Heads of colleges. The Syndicate now sought to guarantee 6 out of 7 members elected by the Senate to be Heads or Professors of colleges affiliated to the University. If that suggestion was adopted what would be the result? The Faculty of Medicine would elect the Head or a Professor of the Medical College, Mr. James would certainly be elected by the Faculty of Engineering and the Principal of the Law College by the Faculty of Law. Thus 9 out of 12 would be Heads or Professors. The object of the Indian Universities Act was to give as many people as possible the right of representation in the Syndicate, reasonable care being taken to see that a certain minimum number should be Heads or Professors of Colleges and that object would be frustrated by the recommendation of the Syndicate. It was but right that the Syndicate should have the advantage of the experience and wisdom of educational experts. It was also desirable that there should be on the Syndicate as many members as possible who might not be educationists. It was thus clear that the Syndicate had gone out of its way in making the regulation. There was essential difference between the Syndicate's proposal and his amendment. His amendment asked that six out of twelve should be Heads or Professors.

Taking part 2 of the Syndicate's proposal he would say that that would shut out all persons who were not educationists from the Faculty of Law, Engineering and Medicine. That would deprive the Senate of the opportunity of returning some Indian gentleman in the Bench or the Bar, or otherwise competent persons to fill up a place in the Syndicate. Were they justified in placing a restriction of that character? Perhaps that aspect of the matter escaped the attention of the gentlemen who drafted the regulation. If they were aware of the fact, and still they did it, he would simply deplore that they did so. In conclusion he requested the Vice-Chancellor to put the two amendments separately.

MR. C. P. RAMASWAMY AIYER.

In seconding the amendment Mr. Ramaswamy Aiyer said that what was sanctioned by the last meeting of the Senate was that five members of the Syndicate should be elected by the Faculties, two by the Faculty of Arts, and one each by the Faculties of Law, Medicine and Engineering. The Senate did not authorise the provision of the words "Every member elected by a Faculty shall be a member of that Faculty." The proposal of the Syndicate undoubtedly hampered the range of selection in respect of members of the Syndicate. They would find that Mr. Govindaraghava Aiyer had been elected by the Faculty of Arts and that Mr. K. Ramanaiahchariar by the Faculty of Law. Sometimes in order to make up the number of persons following the profession of education such results were inevitable. While the presence of responsible educationists was of very great value to the Syndicate, it was also desirable to have on that body non-educational members, as the Syndicate was an Executive Council of the Senate. At the last meeting the Senate did not bestow its attention on the matter that every member elected by a Faculty should be a member of that Faculty. The amendment of Mr. Natesan might therefore be safely accepted.

MR. CORLEY.

Mr. F. E. Corley in opposing the amendment said that Mr. Natesan's argument was fantastic and he said that some particular star would be precluded from the Syndicate if the Syndicate's proposal was carried. It would be unfortunate if the amendment were to be passed.

It was said that the Syndicate had gone beyond the letter of the resolution of the Senate. But they had not gone beyond the spirit. There were certain interests which the Faculties should watch over and which they could be expected to watch. It was desirable in the interests of the University to have specialised knowledge and specialised rights of the respective Faculties on the Syndicate. The persons chosen should possess the inside knowledge of the Faculties they represented. Mr. Natesan's amendment in that respect should be thrown out.

REV. MR. MACPHAIL.

Rev. Mr. Macphail in further opposing the amendment said that Mr. Natesan had misunderstood the instructions given by the Senate on the last occasion. The strength of the Syndicate was increased to 12 and the number of educational members was to be at least six. The resolution of the Senate was sent up to Government for

sanction and it was sanctioned. He would deprecate a thing whose object was to hamper the freedom of the Syndicate to elect for the Faculty of Law or for any other Faculty. Mr. Natesan's amendment restricted the Syndicate in its free election. It was an anti-democratic measure. On what ground were three members allowed to be elected by these three bodies, unless it was that they might be properly represented by people of the respective Faculties. If a Faculty did not choose a member of its own, the election would be a farce. The regulations were not drawn up after being considered in a Court of Law. What was meant by Faculty representation? He thought and the majority of the Syndicate thought that the only object could be to have members from Faculties coming on to the Syndicate. He could assure Mr. Natesan and Mr. Ramaswamy Aiyer that there was no deep-laid plot in the matter; but the regulation was simply framed in consequence of fetters imposed upon the Syndicate by the vote of the Senate.

MR. GOVINDARAGHAVA AIYAR.

Mr. Govindaraghava Aiyar in supporting the amendment of Mr. Natesan said that the Syndicate did not say that it had exercised any independent mind over the desirability of introducing the regulation of which notice had been given. The Syndicate, it was said, merely gave effect to the resolution of the Senate passed at the last meeting. As Mr. Macphail had reminded them they were under the reign of law and they were bound to consider the regulation as a lawyer would do it. He would deal with the regulation in that spirit. The difficulty pointed out by Mr. Macphail was of his own making. The original resolution said that there should be six members of the Syndicate out of the total number who should be Heads or Professors of colleges. That did not say how they ought to be got. They might be got either by the Senate or by the Faculties. Whenever any election had to take place, it would depend upon the question who should be elected. That being so he would ask the ruling of the Vice-Chancellor on the point. It would be "ultra vires" for the Senate now to consider the regulation in the face of the resolution that had been accepted which merely modified Regulation 88 by introducing the figure 6 instead of 5. It would be "ultra vires" to tinker with the resolution and say that the election should be by a particular class of men. That was not what was contemplated and that was not the instruction given to the Syndicate. The Syndicate had traversed beyond its province in making any recommendation in that direction.

In a particular vacancy it might be that the proportion of the educational members did not come up to the level of Regulation 88. It might be that a particular Faculty making election might not have in its composition an educational member, it would then be necessary that the Faculty should be given a free hand to elect whom it pleased whether a member of the Faculty or an outsider, according to exigencies. There should be six out of the total number who should be Heads or Professors of Colleges. If that argument was right, it followed of necessity they could not insist upon a Faculty electing one of its own members.

DR. SLATER.

Dr. Gilbert Slater said that some members approved the first amendment and disapproved the second amendment. He was a difficulty as to how to vote. He wanted to know the position of the University Professors in the Syndicate. He did not find any regulation excluding University Professors from being members of the Syndicate. If they were eligible, Regulation 88 put Heads and Professors of Colleges in a position superior to the Professors of the University. Regulation 88 might raise unnecessary difficulty in making appointments of University Professors in future. It was doubtful if they would accept the appointment if they were told that they would occupy an inferior position in the country to the Professors of Colleges.

THE HON. MR. J. H. STONE.

The Hon'ble Mr. Stone said that University Professors would not be inferior to Professors of Colleges, but only they were not eligible for being elected to the Syndicate as Professors of colleges were. He would vote for the first amendment and not for the second.

Mr. K. V. Rangaswamy Aiyangar reminded the Vice-Chancellor of the ruling asked for by Mr. Govindaraghava Aiyar.

The Vice-Chancellor said that there was no question of "ultra vires" here. If the Senate considered that the proposition in any way went beyond the spirit or letter of the instructions contained in the Resolution, it was open to the Senate to reject the proposition.

When Mr. K. V. Rangaswamy Aiyangar rose to speak on the amendment, the Vice-Chancellor pointed out that the first part of amendment No. 2 related to the first sentence of Regulation 88 and the second part of the same amendment related to the second sentence of the Regulation.

Mr. Natesan explained how the mistake arose and said that it was not his fault.

Mr. Rangaswamy Aiyangar speaking on amendment i (2) of Mr. Natesan said that there was a certain opinion in favour of gentlemen who were competent to be in more than one Faculty that they should be assigned to more than one Faculty, as they were so assigned in Calcutta and Bombay. There was no harm in having a system by which double Faculty representation was possible. If that were so, it might be possible for a Faculty to choose outside that Faculty. It was rather a question of representation of experience and representation of capacity. That only expresses different points of view. It was no unwisdom to provide for a change which might arise.

Mr. B. Hanumantha Row said that the Syndicate had no power to go beyond the wording of the resolution.

The amendment to omit the second sentence of Regulation 88 was first put to vote and lost.

The amendment affecting the first sentence of Regulation 88 was then put to vote and carried by a large majority.

Mr. Natesan then moved that the following clause be added to Regulation 88:—

"Provided that at no time there be on the Syndicate more than one person who occupies the position of Head or Professor in the same college."

In doing so he said that his object was to see that due representation was given to colleges outside the city of Madras.

Rev. Mr. Macphail suggested that the amendment might be better worded.

Mr. C. P. Ramaswamy Aiyar in seconding the amendment made the necessary verbal alterations so as to make the amendment read as follows:—
"Provided that at no time there be on the Syndicate two or more persons occupying the position of Head or Professor of one and the same college."

MR. ALLEN.

Mr. Allen said that he was absolutely astounded at the course taken by Mr. Natesan. Mr. Natesan moved for a radical alteration of the existing state of things without saying a word in support of the change. He was treating the Senate with scant courtesy indeed. He was careful to say that he was anxious to secure greater representation to up-country colleges. That remark would apply to his second amendment which had not yet been moved.

Mr. Natesan replied that the second amendment would follow only if the first was carried.

Mr. Allen asked why no college should be represented by two or more representatives and said that Mr. Natesan was a great believer in the great principles of equity. Mr. Natesan was kept in the nibbling process of the present constitution of the University. He was preparing for a radical overthrow of the existing constitution without offering a single reason. The work of the University office should be done as efficiently as possible. In order to get that work done efficiently, the bulk of the Syndicate members must be resident in Madras. He had no objection to have people from up-country colleges. In old days there was an express rule that members of the Syndicate should be residents of Madras. Mr. Natesan himself suggested only two members of the Syndicate from up-country. The bulk of the Syndicate must be educationists. Mr. Natesan aimed at the Presidency and the Christian Colleges and the educationists of the colleges were practically on their trial and they were threatened with guillotine. Their heads would be saved only if the amendment was cut off. The business of the Syndicate was done by means of standing committees, special committees and circulation. There were 8 standing committees and one member of the Syndicate was on five of those committees and two members were on four of those committees. These gentlemen were from the Christian or the Presidency colleges. Four members of the Syndicate were on Standing Committees and three out of the four were from the Christian College or the Presidency college. Out of those members one was on five standing committees. There were some Syndicate members who were on no committees. The work of the University ought to be done by educationists. In addition to standing committees there were special committees. An account of the special committees was found in the annual report. Mr. Hunter was on five of those special committees and Mr. Macphail was on three of them. In the agenda published on October 12, Agenda No. 10 was to be moved by the Hon'ble Mr. Justice K. Srinivasa Aiyangar. He was a busy gentleman and was therefore not able to move the proposition which he was expected to move. The work of the University was mainly done by educationists and must be done by educationists. If the amendment was carried, there could be only 3 educational representatives resident in Madras, representatives from the three first-grade colleges.

Dr. Nair: There are six, including representatives for Engineering, Law and Medicine.

Mr. Allen continuing said that they were asked to hand over themselves so that they should not take advantage of the experience of gentlemen resident in Madras to do the work of the University.

MR. JUSTICE SRINIVASA AIYANGAR.

Mr. Justice K. Srinivasa Aiyangar said that the remarks of Mr. Allen practically amounted to a charge against him for dereliction of his duty.

Mr. Allen: I entirely dissociate myself from any such thing.

Mr. Justice K. Srinivasa Aiyangar repeated that it practically amounted to that and said that he declined to move a proposition which had been put against his name without his authority. He never consented to make any such proposition. It was a surprise to him that his name had been put against the proposition. It was a small proposition with regard to the levy of a fee of Rs. 2 for the registration of matriculates. He would also say what his objections were to the proposal of the Syndicate and why he was going to oppose it really. He had been under the impression that in matters pertaining to the Syndicate when a majority of the Syndicate passed a resolution and he went in a minority, although he might have opposed the proposition in the Syndicate he thought that the courtesy due to the majority of the members of the Syndicate really prevented him from opposing the proposal brought in the name of the Syndicate. That was why he did not want to speak on the proposal of the Syndicate. He had the strongest possible objection to what underlay that proposition, because he thought that the Syndicate had no business to levy a fee for doing a certain piece of work. That was why he declined to move it. He did not say so in express terms in his letter to the Registrar. They who were not Professors were as anxious to do their duty to the University as any of the Professors who were sitting on the various Committees of the Syndicate and they wanted to do their duty as fairly and well as the Professors of Colleges.

MR. K. B. RAMANATHAN.

Mr. K. B. Ramanathan said that Mr. Natesan's amendment ought to be carried through. At present there was absolutely no chance of one like himself to get into the Syndicate. Men like himself were not awayed by considerations of interest. If the amendment was carried, there would be some chance of individual colleges being represented that were now neglected. There were minor colleges, girls' colleges which were now

unrepresented and they would get a chance of being represented by lady graduates. There were also second-grade colleges. He did not see why they should not be represented. In far off times there were representatives on the Syndicate from Mysore and Travancore. If the work of the University went on well in those days, he did not see why they should believe there would be a catastrophe if they went back to an earlier state of things.

MR. RANGASWAMI AIYANGAR.

Mr. K. V. Rangaswami Aiyangar in supporting the amendment said that the question of continuing the present state of things was a serious one for mofussil colleges. It was said by Mr. Allen that Mr. Natesan gave no reasons in support of his amendment. He well remembered that Mr. Allen himself moved a proposition once and gave no reasons, but simply took it for granted that the reason was obvious. It was said that efficiency was to be sought in particular institutions situated in Madras and should not be sought elsewhere. The ordinary business of the University was not of so remarkable a nature as Professors of mofussil colleges might not be able to assist. All he asked for was that members of mofussil colleges might be supposed to possess the minimum qualifications required for serving on the Syndicate. The University was not likely to lose efficiency by having on the Syndicate people from the mofussil and the City except from the two first-grade colleges referred to. There were 29 second-grade colleges as against 16 first-grade colleges. It had been a crying injustice that second-grade colleges had not been represented at all on the Syndicate. Practically two institutions were now controlling the University. Some kind of statutory provision should be given to enable other men to serve on the Syndicate and to relieve the burden on the Madras colleges which were said to be over-weighted by University work. A teacher existed to teach, not merely to control and supervise the University. On that ground the House would strongly support the amendment of Mr. Natesan that there should not be more than one person on the Syndicate from a single college, so that all colleges might have a certain degree of representation. There were two teaching colleges, two law colleges, a medical college, and an engineering college besides arts colleges. Out of 51 colleges, 47 were at present unrepresented.

Mr. Hunter said when there was a vacancy in the Syndicate, Mr. Natesan and others were compelled to elect from among the members of the Presidency and Christian Colleges. The members

of the Syndicate were elected by the Senate. Mr. Natesan was forsaking his democratic principles and he did not like the Professors of those two colleges to be on the Syndicate.

Rev. Father Quinn said that Mr. Natesan's amendment did not go very much beyond what he wished to go himself. When the Syndicate nominated two mofussil Fellows to the present vacancy they were satisfied more than what they wanted. He felt he must vote against the amendment.

Sir V. C. Desikachariar said that what Mr. Natesan wanted to do indirectly could be done directly. The Law College and the Pachaiyappa's College were unrepresented. If the Syndicate did not exercise their franchise whose fault was it? One would have wished that Mr. Allen's remarks were not made. It was such remarks that irritated people. People were going to the side issues.

DR. NAIR.

Dr. Nair said that after hearing the speech of Mr. Allen, he was absolutely converted to vote for the amendment. Mr. Allen made a clever defence of some members who were doing the work. There were a very large number of persons who were equally willing to do the work. He wished to know why other colleges were clamouring for representation and asked if the privilege of the Syndicate was one which was most valued and he was told that the privilege of the Syndicate was to nominate a person. He did not know if it was a fact. It was only fair that the thing should go round. Mr. Natesan's principle of representation was just the same as that adopted in the election for public bodies in this country, such as the Corporation. Government had forced on them the principle of separate electorate and that had changed their views on democracy. From the manner in which the Syndicate did its work it was evident that there were certain members who had practically taken the whole thing into their own hands and had been doing things as they pleased. The alteration of the constitution of the Syndicate must be brought about. There was a ring there and the only way in which that ring could be broken was to introduce some such constitution as Government had introduced in public bodies.

THE HON. MR. J. H. STONE.

The Hon'ble Mr. J. H. Stone said that he did not know whether the Senate really face the fact that the proposal was to entirely alter the constitution of the University for the constitution of

the Syndicate was no unimportant part of the constitution of the University. When the University was in the making, the constitution of the Syndicate was thoroughly discussed and it was impossible to alter the constitution now. The alteration suggested by the proposal was momentous. Apart from that, it seemed to him that to any person who looked at the thing from the common sense point of view—he was tied to the Senate and he was also tied to the Syndicate and he could only leave the Syndicate when he left the country, so that his position was a disinterested one—to any one looking at the thing from a disinterested point of view, it was not at all surprising or regrettable if in the University which consisted of a limited number of colleges differing in size and staff—with all deference to second-grade colleges they must confine themselves to Professors of first-grade colleges—they found two colleges which were admittedly the largest and most numerously staffed from which a large number of Professors were elected for the Syndicate. They should not bring analogies from an entirely different point of view. In the constitution of a Municipality representation of localities was obviously quite essential. If they looked at the real merits, they must feel that it was inevitable they should have on the Syndicate a good many men from those two colleges. The Syndicate must number among its members very eminent educationists in the University. Where would they find them? A large proportion of them were to be found in those two colleges. He did not want to exclude up-country college representation. He hoped that the Senate would try and separate real argument from the specious one.

MR. K. RAMANUJA CHARIAR.

Mr. K. Ramanuja Chariar of the Pachaiyappa's College in supporting the amendment said that while the Syndicate consisted mostly of the members of those two colleges, the Pachaiyappa's College, a first-grade college for the last 20 years had not one to represent it. Unless the Principal and the Professors were taken into the Syndicate and let into the secrets the college would not become efficient. The University did not exist for one or two colleges, but existed for a general body of teachers. If a college which had the largest number of students on the rolls had no chance of getting any of its members into the Syndicate, there was something rotten in the system. It was said that the Senate elected the Syndicate. There was only apparent freedom, but really the Syndicate claimed the right.

recommending one or two members for a place. That was one method by which they could get a certain member for whom they were particularly anxious to find a seat in the Syndicate. In the Senate 20 members were elected and 80 members non-elected. Whose voice would prevail? Indian people were not permitted to be represented in the Syndicate and other first-grade colleges had no chance of making their grievances felt. It was the duty of the Syndicate to bring one or two Members of the Pachaiyappa's College into the Syndicate and then to raise it. The other college Professors were ready to save the Presidency and Christian College Professors from the trouble. If they were found inefficient, they might be chucked out. Other colleges had a right to have a voice in the dictation of the policy of the University.

The amendment was lost, 22 voting for and 46 against. A poll was demanded and taken, three gentlemen remaining neutral.

MR. G. A. NATESAN.

Mr. Natesan then withdrew the following proviso:—

"Provided also that at least two members of the Syndicate be persons occupying the position of Head or Professor in—any of the affiliated colleges situated outside Madras."

In doing so he said that his object of the proviso was to break the monopoly or ring. He thought it essential to protect certain interests by a resolution of that character. After hearing Rev. Father Quinn who was one of those people who were delighted by small favours shown to them, he did not like to move the resolution, especially after seeing the fruits of his endeavours with regard to his last proviso. He withdrew it.

Mr. Ramalinga Reddi thereupon moved the same amendment which was seconded by Mr. Davis.

Dr. Clarke said that the ring referred to was only in the Senate and not in the Syndicate.

Col. Miller moved that Agenda No. 24 which was to add at the end of Regulation 88 as an additional paragraph: "At least two of the elected members of the Syndicate shall be persons ordinarily resident outside the limits of the city of Madras."

Mr. Statham seconded the amendment.

Mr. Alley pointed out that if Mr. Ramalinga Reddi's amendment was carried the Director of Public Instruction of a Native State would be ineligible to sit on the Syndicate.

Col. Miller said that it was the House might refuse the other amendments and accept his.

Mr. Hodgson agreed with this view.

The amendment of Mr. Ramalinga Reddi was put to the meeting and lost.

Mr. K. V. Rangaswamy Aiyangar did not wish to move his further amendments which were consequential.

MR. K. RAMANUJA CHARIAR.

Mr. K. Ramanujachariar moved that the words "the Syndicate and" in lines 1 and 2 of the following Regulation 93 be deleted:—

"If the election is to be by the Senate, the Syndicate and each member of the Senate, and if the election is to be by a Faculty, each member of the Faculty shall be at liberty to nominate a person qualified to fill the vacancy. Every nomination by a member of the Senate or a Faculty shall be in writing and must reach the Registrar not later than ten days after the publication of the notice in the Gazette."

In doing so he said that when a vacancy occurred, why should there be a differential treatment shown between the Senate and a Faculty in the matter of nomination. No indication was necessary from the Syndicate to the Senate as to which person may be elected. The members nominated by the Syndicate had always been elected. That aspect of the case must appeal to all the members of the Senate.

Mr. Natesan in seconding the amendment said that when the Syndicate nominated a person there is sometimes an unconscious bias in favour of one of their own class of men.

The Hon'ble Mr. Stone said that the members of the Syndicate were prepared to concede that point and long debate was unnecessary.

The amendment was put to vote and carried by a large majority.

MR. NATESAN.

Mr. G. A. Natesan moved that in the second para of the following Transitory Regulation 94 (b) all the words beginning with 'six' in the

first line and ending with the word 'last' in the last line be omitted and the following be substituted:—

'Two vacancies shall be filled under the revised Regulations by the Faculty of Arts; the next three by the Faculty of Law, Medicine, and Engineering in their order, and the remaining vacancies.'

"As and when the members of the Syndicate holding office at the time the revised Regulations providing for the election of members of the Syndicate by the Faculties receive sanction and become operative first cease to hold office under the Regulations, the vacancies so caused shall be filled in the manner following:—the first six vacancies caused by members of the Faculty of Arts ceasing to hold office as members of the Syndicate shall be filled under the revised Regulations by the Senate; the first vacancies caused by members of the Faculty of Law, Medicine, or Engineering ceasing to hold office shall be filled under the revised Regulations by the Faculty of Law, Medicine or Engineering respectively; of the remaining vacancies the first two shall be filled under the revised Regulations by the Faculty of Arts and the last by the Senate."

Mr. Mark Hunter seconded the amendment and Col. Miller accepted the same and it was put to the meeting and carried.

The Resolution as amended was then put to the meeting and carried. The principal Regulations not already mentioned here were these:—The Syndicate shall consist of the Vice-Chancellor as Chairman, the Director of Public Instruction and twelve *ex-officio* or ordinary Fellows of whom seven shall be elected by the Senate, two by the Faculty of Arts, one by the Faculty of Law, one by the Faculty of Medicine, and one by the Faculty of Engineering. The term of office of an elected member shall be two years commencing from the date of the publication in the "Fort St. George Gazette" of the result of the election. In the event of a member of the Syndicate elected to fill a vacancy to be filled by a Head of, or a Professor in, a college affiliated to the University ceasing to be the Head of, or a Professor in, a college affiliated to the University he shall vacate his seat. If the question is raised as to whether or not a member has vacated his seat under this Regulation, the same shall be determined by the remaining members of the Syndicate.

(i) When a vacancy occurs among the elected members of the Syndicate, or at any time within one month of the date when such a vacancy will occur under Regulation 89, the Registrar, under the direction of the Syndicate, shall publish a notice thereof in the "Fort St. George Gazette" and shall on or before the date of such publication post a notice of the vacancy, to each member of the Senate if the election is to be by the Senate, and to each member of the Faculty if the election is to be by a Faculty.

(ii) When any vacancy has to be filled by the election of a Head of, or a Professor in, a college affiliated to the University, the same shall be notified in the notice of the vacancy.

FEE FOR REGISTRATION OF MATRICULATES.

Mr. Hunter moved as a recommendation of the Syndicate that in Regulation 166 (a), after the first paragraph, the following words be inserted as an additional paragraph:—

'A fee of two rupees shall be paid for registration under this Regulation.'

He said that such means of raising revenue to the University was wholly unobjectionable. To draw up a list of eligible students, the University was put to considerable expense.

Mr. Hodgson seconded the resolution.

Mr. Davis hoped that there would be reduction in compensation paid by the Native States if this resolution was carried.

Mr. Hodgson asked if the two States, Travancore and Cochin, would receive any share in the revenue.

Mr. Natesan said that the fee was unnecessary. For the sake of employing some clerks in the office why should they tax a large body of students Rs. 2 a head. There should be substantial reasons for a proposition of the character.

Mr. K. V. Rangaswamy Aiyangar explained why he had given notice of an amendment to reduce the fee to one rupee. He did not agree to this principle of taxation at all. The fee for the S.S.L.C. was Rs. 12 the same as for the old Matriculation Certificate. After once taxed, students should not be farther taxed. The privilege referred to by Mr. Hunter of a student possessing that certificate was purely nominal. On those grounds he withdrew the amendment standing in his name.

On the motion of Mr. R. G. Greave seconded by Sir V. C. Desikachariar and supported by Mr. L. A. Govindaraghava Aiyar the motion was referred back to the Syndicate.

B. A. HONOURS PRELIMINARY EXAMINATION.

On the motion of Mr. Hunter seconded by Mr. C. P. Ramaswami Aiyar certain alterations in Regulation 200 and 208 and certain other consequential changes were effected in regard to the preliminary examination of B. A. Honours candidates.

The Syndicate's recommendation, that the revised Regulations for the B. A. Honours Degree Examination in Branch V—History, Economics and Politics were carried. For the same examination "Economics," a special subject, was added as a sixth optional under (B) of the Regulation.

L. T. DEGREE.

The next resolution moved by the Hon'ble Mr. Stone referred to marks to be obtained by candidates appearing for the degree of Licentiate in Teaching to secure a first, second or a third class. This was carried.

OLD BY-LAWS B. A. DEGREE.

Rev. Macphail moved certain Transitory Regulations for making provisions for candidates for the B. A. Degree Examination under the Old By-laws, who have passed only in one or two divisions of the examination, to qualify themselves for the degree by appearing for and passing the B. A. Degree Examination under the New Regulations in the Part or Parts concerned:—

Mr. K. V. Rangaswamy Aiyangar seconded the motion which was put to the meeting and carried.

DEGREE OF BACHELOR OF LAWS.

Mr. Justice Seshagiri Aiyar moved that for Regulations 218 to 232, both inclusive, relating to the Examinations for the Degree of Bachelor of Laws certain revised Regulations making the course a two-year course and certain Transitory Regulations, be substituted. He explained that there were two sides of law, the scientific and the practical. The practical side might be learnt after the examination in the professional career. It was also said that the three year-course unduly interfered with the Honours course of students. Also considering the uncertainty of University examinations it was necessary to shorten the period of examinations as much as possible and to minimise the cost of remaining in Madras. In reducing the period the Faculty of Law had also recommended the reduction in the number of subjects which he enumerated.

Sir V. C. Desikachariar seconded the resolution which with a certain verbal amendment moved by Mr. K. V. Rangaswamy Aiyangar was put to the meeting and carried.

AFFILIATIONS TO THE UNIVERSITY.

The Senate then recommended the affiliation of the Theosophical College, Madanapalle, in Malayalam and Persian (Group II of the Intermediate course), of the Government College, Anantapur, in Ancient History, Modern History, Logic, Telugu, Canarese and Sanskrit (Group III) of the Intermediate course and of the Government College, Kumbakonam, in Group II of the B. A. Degree courses.

On the motion of Mr. Hodgson the discussion on the further items on the agenda was postponed to the 24th November 1916 at 4 P.M.

THE ORAL INTERPRETATION OF LITERATURE.

The special difficulty in the teaching of literature arises from the fact that in all writing deserving to be called literature there is not only an intellectual element but an emotional element; and emotion cannot be taught and cannot be enjoined. All effective aids to the emotional appreciation of literature must be in some way indirect or incidental. Of such aids, the oral interpretation—or, to call it by a simpler name, reading aloud—is the most important.

This is true of prose as well as of poetry. For all good prose is the living voice of the writer, and should, therefore, be read aloud. Mentally, at all events, it must be. "The best test of good writing," said Hazlitt, "is, does it read well aloud?" In no way can a pupil so well be taught to catch not only the meaning but the temper and feeling of his author as by hearing his work read aloud, or, better yet, by being required to read it himself.

What is true of prose is, of course, still more obviously true of drama and poetry. Drama by its very nature must be read aloud. The read-aloud of drama, especially of comedy, is an exercise of imagination and sympathy such as hardly any other form of academic instruction can afford.

Most important of all is the reading aloud of poetry. For it must be remembered that the distinguishing element in poetry is its music, and this musical quality must always be recognized and expressed in the reading. In good poetry the musical values are no less important than in music proper; but they are more delicate and subtle, and therefore need more flexible and sympathetic rendering.

To read poetry excellently is a rare and delicate art which most of us perhaps cannot hope to attain; but to read it decently, "with good accent and discretion," as Polonius says, is an accomplishment within the reach of all. Doubtless there are marked differences in native sensibility to this musical element in poetry; but the sensibility can be cultivated for poetry as surely as for music. In any case, the reader who is destitute of it must inevitably lose a large part of the charm of all good verse.

I have been speaking of the values of reading aloud as an aid to the appreciation of literature; but it has other values. I will barely mention two: (1) It is one of the most useful aids in learning the difficult art of composition. We do not care to "form our style," as the phrase goes, on any other writer; we must write like ourselves. We must talk to the reader. But we must learn to do that with a minimum of harshness or haggling. There is no better way for a boy—or a man—to do that than to read aloud a good deal, not from one but from a variety of good writers. He thus comes to have an instinctive feeling of how his own writing ought to sound, and is dissatisfied if it does not sound so. (2) The other valuable result of the habit of reading aloud is the influence it has in the formation of a clear, distinct and pleasing utterance in speech. I do not refer to public speech; but the conversational voice, the voice of the class-room and the drawing-room. I am persuaded we often under-estimate the influence which the hearing of good reading may have, even upon quite young children, in correcting a tendency to sluggish, half-articulated speech.—C. T. WINCHESTER in the *English Journal*: Chicago.

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ENGLISH SOUNDS AND SPELLINGS.

XIII.

Three guards caught two birds.

Əri : ga : dz kə : t tu : bə : dz.

THIS will serve as the text for our consideration of the long sounds in the English language. We have already dealt with two of the five sounds and seen how *a :* and *i :* can be represented in at least sixteen and twenty different ways respectively. But some of the above classifications of spellings may appear to be arbitrary. To give but one instance, the student of language may pounce upon us for placing "mosquitoes" under the "ui"—spelling. He may point out that the *u* goes with *y* and not with *i*. But *qu* has two different values. It may stand for *kw* or merely *k*. In the latter case the *u* should for purposes of spelling be considered, we think, along with the vowel sound in the word. We may perhaps add here that to be able to account for a particular spelling is quite different from having to adopt it even though the sounds have

changed. "Etymological beauties" are for the advanced student who has already learnt the history of the words from other sources than the spellings. But "orthographical monstrosities" are our particular concern.

u :

u : may be defined as a rounded—back—closed—tense sound. It is the long sound corresponding to the short *u* sound in stressed syllables, as in "put." It differs from the *i :* sound in being rounded instead of being spread out and in being articulated with the back of the tongue instead of with the front. If in this position the tongue is raised further towards the soft palate so as to produce audible friction, the resulting sound is the consonant which occurs in "water" (*wə : tə*) and "web" (*web*).

As in the case of *i :*, so also in the case of *u :*, there is a tendency in the south to diphthongise, as in "soon" (*su . wɪ* or *su . wɪ* instead of *su : n*). Pure *u :* sound is to be recommended. And care should be taken with regard to the proper rounding of the lips.

There are many words in which both *u* : and *ju* : sounds are very often heard. *ju* : is generally considered to be more elegant in such cases and the same speakers who prefer *ju* : in deliberate speech very often drop the consonantal sound in conversation. We may instance "absolute," *æbsəljʊ : t* for elegance, and *æbsəlu : t* for ordinary quick conversation. We very often hear vehement speakers vehemently denouncing others who have the misfortune to differ from them as knowing "*æbsəljʊ : tli nʌʃɪp*" of the matter on hand. The double emphasis is perhaps intended to show how doubly sure they are of the egregious folly of their opponents!

The words to which we have referred are generally spelt with *eu*, *ew*, *u* or *ui*. The following rule is given by Mr. Jones with regard to the introduction of the *j* sound in such words:

If the preceding consonant happens to be *r*, *f* or *ʒ*, or *l* in turn preceded by another consonant, the *j* sound is not introduced. Instances are *ru : l*, *ʃu :*, *dʒu :* and *plu : m*.

If the preceding consonant is *l* in turn not preceded by another consonant, usage varies. Examples are "late" (*ljʊ : t* or *lu : t*) and "lieu" (*ljʊ : or lu :*)

Spellings with *ju* : sounds are considered separately.

Spellings (*u* :)

- (1) *o*— tomb, do, who.
- (2) *oe*— shoe, canoe.
- (3) *oo*— food, mood, school, balloon (*bə'lu : n*).
- (4) *o* + const. + *e*—move, prove, lose (*lu : z*), whose.
- (5) *oo* + const. + *e*—loose (*lu : s*), ooze (*u : z*)
- (6) *ou*— youth, wound (noun), soup, joust (*dʒu : st*).
- (7) ough (gh mute)—through.
- (8) *ou*— manoeuvre (*mə'nu : və*).
- (9) *ou* + const. + *e*—Oude (*u : d*), Ouse (*u : z*).
- (10) *ow*— Cowper (*ku : pə*).

- (11) *u*— truth, brutal, Susan (*su : zn*).
 - (12) *ue*— blue, true.
 - (13) *u* + const. + *e*—rude, lute (*lu : t* or *ljʊ : t*), brute.
 - (14) *uh* (h mute) uhlan (*'u : lə : n*, or *'ju : lə : n*, or *'ju : lən*).
 - (15) *ui*— fruit, sluice (*slu : s*), bruise (*bru : z*) juice (*dʒu : s*).
 - (16) *eu*— rheumatism, sleuth-bound (blood-bound).
 - (17) *ew*— crew, slew, jew, chew.
 - (18) *ieu*— lieu (*lu : or ljʊ :*).
 - (19) *euch* (ch mute)—Buccleuch (*bə'klu :*).
- We shall next consider the spellings for *ju* :
- (1) *u*— duty, duly, tuition (*'tju : ʃn*).
 - (2) *ue*— due, hue, cue.
 - (3) *u* + const. + *e*—tune, lute (*ljʊ : t* or *lu : t*).
 - (4) *ui*— suit, nuisance (*nju : sɪns*).
 - (5) *ew*— few, mew, new.
 - (6) *ewe*— ewe (*ju :*).
 - (7) *eu*— feud, neuter, deuce, Euclid.
 - (8) *eau*— beauty.
 - (9) *ieu*— lieu (*ljʊ :* or *lu :*)
 - (10) *iew*— view.
 - (11) *yu* + const. + *e*—yule.
 - (12) *you*— you, youth.
 - (13) *yew*— yew.
 - (14) *ug* (g mute)—impugn, impugnity.
 - (15) *ugh* (gh mute)—Pugh (*pju :*).
 - (16) *ui* + const. + *e*—puise (*pju : ni*).

XIV.

Next may be taken the *o* : sound in "caught." It has been already said that the difference between *o* and *o* : is not merely in the duration of the sounds, but also in quality. The *o* sound is, as will be seen later on, a slightly rounded-back-open-lax sound. In the case of *o* :, however, the tongue rises a little more towards the soft palate and the

lips are more pronouncedly rounded. In addition to this, there is the muscular tension in the vocal organs to be taken into account. The position of the tongue, as a matter of fact, is intermediate between the open and the half-open positions. There is considerable rounding of the lips, a fact to be taken particular notice of. The sound may therefore be defined as a rounded-back-tense sound, lying between the open and the half-open positions.

A different sound intermediate in length and quality between *o* and *o* : is often heard in words like "lost" and "soft." When greater accuracy is needed, this sound may be represented by *ɔ*. But this is not generally necessary. It simply marks a hesitation on the part of the speakers between the long and the short sounds. As a general rule, we may lay down that all the words that are now spelt with *o* have the short sound—for instance, "often" (*ɔfn*), "gone" (*ɡɔn*), horrid (*hɒrɪd*) and sonnet (*sɒnɪt*). Spellings like *au*, *aw*, *a* before *l* and *or* stand for the long sound, as in "haul," "saw," "fall" and "sore."

Some speakers make a distinction between *r*-words and non-*r*-words, pronouncing the former with a diphthongal sound and the latter with the pure long sound. They pronounce "sore" and "sore" as "sɔ : ɔ," making therefore a distinction between them on one side and "saw" on the other. This distinction, however, is not quite common and it is unnecessary for our purposes. So, for us, *ɔ* : will be the pronunciation for all the three words.

Spellings:—

- (1) *a*—(a) before *ll* and *l* + const.—hall, bald, salt (*ɔ*)
- (b) after *w* and *w* + const.—water, wrath, walnut, Walter.
- (2) *ar*—(a) before *l*. Marlborough (*mɔ : lbɜ*).
- (b) after *w* and *wh*. war (*wɔ :*), wharf, quart (*kwɔ : t*), warp (*wɔ : p*).

- (3) *au*— haul, haunt, daunt, vaunt.
- (4) *aw*— law, yawn, pawn, saw.
- (5) *awe*— awe (*ɔ :*)
- (6) *or*— lord, hord, sword (*ɔ : d*)
- (7) *oa*— broad.
- (8) ough (gh mute)—bought, fought, sought.
- (9) augh (gh mute)—taught, caught, naught.
- auha = *ɔ* :— Vaughan (*vɔ : n*)
- (10) ough (= *ɔ*, or *ɔ* :, or *ɔ* : + *f*)—trough (*trɔ : f*), cough (*kɔ : f* or *kɔf*).
- (11) *o* (= *ɔ*, or *ɔ* :, or *ɔ* :)—lost, soft. [See previous note.]
- (12) *o* + const. + *e*—gone [Sometimes, *ɡɔ : n*; but better to say *ɡɔn*.]
- (13) *ore*—lore, more, sore, before.
- (14) *oar*—oar, boar.
- (15) *o'er*—o'er (in poetry only).
- (16) *oor*—door, floor.
- (17) *our*—four, pour, your (*jɔ :*, but more commonly *juɔ*).
- (18) *ag* (g mute)—Magdalen (*mɔ : dlin kɔlɪdʒ* in Oxford), Magdalene (*mɔ : dlin kɔlɪdʒ* in Cambridge).
- (19) *oir* (in French words, = *wɔ :*, or less commonly *wa :*)—memoir, reservoir, boudoir (*bu : dɔwɔ :*, or *ɑ :*).
- (20) *ure* (*ɔ* : or *uɔ*)—sure (*ʃuɔ* is to be preferred, as also in the case "your" where *juɔ* is preferable).

XV.

The next sound we have to consider will best be learnt from a good sleeper, especially if he happens to be a "thick friend" in the true sense of the phrase. After perhaps more than five or six ineffectual attempts on our part to wake him up from his profound sleep, there emanates a mysterious θ : sound, between half-waking and half-sleeping.

This sleepy θ : (a half-brother of the more sleepy and more common θ about which much will have to be said later on) may be defined as an *unrounded—mixed—half-open—tense* sound. Very often the tongue rises a little higher than the half-open position, especially if the sound occurs medially as in "Earth" (θ : θ). On the other hand, when the sound occurs finally, there is a tendency to lower the tongue a little below the half-open position.

But the meaning of the term "mixed" should be clearly understood. In the case of certain vowels the tongue is raised both in front towards the hard palate and behind towards the soft palate, with a consequent lowering of the middle portion. Such vowels are classed as "mixed" sounds and their qualities are determined by the relative heights to which the front and the back of the tongue rise. But unfortunately the precise nature of these sounds cannot be determined with any great accuracy and our only criterion in this case happens to be the acoustic effect they produce. It is for this reason that we class θ : , θ and Λ as "mixed" or "indistinct" sounds.

When we call Λ : a "mixed" sound, we mean that in that case neither the front part of the tongue nor the back part rises. But there is no indistinctness associated with the Λ : sound.

Some phoneticians regard θ : as a more or less open sound. They say that the tongue in producing the θ : sound is practically in the Λ : position, the rising in front and the lowering behind being very slight. But as Mr. Jones

points out this cannot be the case; "Because," he continues "if the mouth is opened as widely as possible, θ : cannot be pronounced properly, whereas open vowels such as θ , α , Λ can be pronounced perfectly well." The lowered variety in some speakers is perhaps due to the fact that it occurs in the London dialect.

This θ : sound occurs only in r -words, with the single exception of the word "colonel" ($k\theta$: nl). But even this word is really no exception to the rule if we consider what its original form was. "Colonel" is derived from Old French which had really two forms "colonel" and "coronel." We have taken the spelling from one form and the pronunciation from the other.

This θ : sound occurs only in accented syllables. In completely unaccented syllables it reduces itself to θ . In deliberate speech a slight stress is thrown on such syllables, so that the resulting sounds are intermediate between θ : and θ .

Spellings:—

- | | |
|------------------------|---|
| (1) er— | fern, herd, herb. |
| (2) ere— | were, werewolf. |
| (3) er + const. + e— | deserve, swerve, merge. |
| (4) .err— | err (θ :), erred (θ : d),
erring (θ : rɪŋ). |
| (5) ear— | heard, earl, earth. |
| (6) ear + const. + e— | Stearne, hearse. |
| (7) ir— | bird, stir, birth, girl. |
| (8) ir + const. + e— | cirque. |
| (9) irr— | chirr (or churr), whirr. |
| (10) or— | world, word, worthy (wɜ:ði). |
| (11) or + const. + e— | worse. |
| (12) our— | journey. |
| (13) our + const. + e— | scourge. |
| (14) ur— | fur, hurt, turn. |
| (15) ur— | pur, charr, knurr. |
| (16) ur + const. + e— | surge, purse, curse. |
| (17) yr— | syrtis, Smyrna. |

(18) yr + const. + e—myrtle.

(19) yrrh—myrrh.

(20) ol (o)—colonel ($k\theta$: nl).

In some foreign words θ : occurs as the nearest substitute for some of those sounds which are not found in English. For instance, "Goethe" is pronounced as $g\theta$: tɛ.

XVI.

We may point out in this connection that the pedantry which is very common with regard to the pronunciation of new loan words is not a thing to be very much applauded. A loan word presupposes that there is an absolute necessity for borrowing that foreign word and that there is, in the language that borrows, no other way of expressing the idea connoted by it. If a loan then is decided upon, it should be adapted to the genius of the borrowing language. It should not be allowed to stand earmarked for ever as a loan. Or, in other words, the loan word should not obtrude upon us as a foreigner pressed unwillingly into our service. If therefore a German, or French, or Italian, or Tamil word is taken into English, it should consistently be given an English uniform. And this important change undergone by every loan word is but one aspect of the principle of economy which is at work in every language. We shall try to make the point clear by a few illustrations.

We begin with the name of the great dramatist of the last century, who has given us a second version of the Faust legend. It is pronounced $g\theta$:tɛ in German, with a vowel sound not found in the English language. The question is, Are we to add a forty-fifth sound to the existing number in English? Are we to introduce also the nasal vowels from French and say $r\theta$:neisɔ̃ns, or $r\theta$:neisɔ̃ns, or $r\theta$:neisɔ̃ns, or simply $r\theta$:neisɔ̃ns? Are we to incorporate into English sounds the Tamil stop θ and nasal θ when we borrow the word $g\theta$:tɛ (pronounced in Tamil we

know how, but in English $m\theta$:lɛgɜ:tɔ̃ni)? This $g\theta$:tɛ happens to be a very good illustration and to the point: for, all the sounds in it except θ (nu) are more or less foreign to English. θ is formed laterally, the blade of the tongue rolling up towards the hard palate, while English θ is formed laterally at the upper gums. The vowel sound after θ is approximately English α . θ is a guttural fricative as pronounced in this word. The vowel sound after θ is an unrounded u-sound, which here yields place to English θ . θ is a plosive formed by the tip of the tongue articulated against the upper row of teeth. The next vowel sound is approximately Λ and quite distinct from θ : which takes its place in the English pronunciation of the word. θ is a nasal sound corresponding to Tamil θ which is formed by the tip of the tongue articulating against the hard palate. The double consonant, again, is a distinct feature of Tamil and many other languages, while it is quite unknown in New English except in words like "unknown" (Announ) where the word is felt as a compound one of "un" and "known." The last sound is θ which is more like the first i in "pity" (piti) than like the laxly articulated second i.

We must apologise to the indulgent reader for being so far led away by $g\theta$:tɛ (the literary form of which, however, is $g\theta$:tɛ) but we hope we have made one point clear. It is not possible for a borrowing language to borrow everything. In other words, the borrowed thing must be naturalised. This is a point which we would recommend to the stalwart syndics who are enthusiastically working at the enrichment of the Indian Vernaculars. Technical and scientific terms have to be borrowed, but they must be immediately naturalised. If, for instance, the word "gas" has to be borrowed into Tamil, we cannot afford to borrow the θ sound as well. If with every word we borrow we borrow a new sound, there will be no end to the babel of sounds then. This is the lesson which English has

taught us. It has been perhaps the greatest borrower the world has ever seen, but like its representative genius, the immortal Swan of Avon, whatever it borrowed has been made its own. The "myriad-minded" Shakespeare was accused by some of his contemporaries as trying to shine in borrowed feathers. The "good old Saxon-tongue" was reviled for being indecent enough to allow the etymology of loan-words to be obscured by such devices as the change of accent. In reference to the "Fancy's child" who, according to Milton, warbled "his native wood-notes wild," Greene said:

"Yes, trust them not: for there is an upstart Crow, beautified with our feathers, that with his Tygers heart wrapped in a players hide, supposes he is as well able to bumbast out a blanke verse as the best of you: and being an absolute *Johannes factotum* is, in his owne conceit, the only Shake-scene in a countrie."

As regards the tendency in English to throw back the accent as much as possible, the protest of the poet Rogers was never listened to. "*Contemplate*," said he, "is bad enough, but *balcony* makes me sick." On the other hand, modern readers are quite taken aback when they meet with such lines as:

"When I *contemplate* all alone"—Tennyson.

or,

"At Edmonton, his loving wife
From the *balco'ny* spied
Her tender husband, wondering much.
To see how he did ride"—Cowper.
(To be continued.)

T. A. RAMAIA.

PRIMARY EDUCATION IN THE CITY OF MADRAS.

[By P. A. SUBRAMANIA IYER, HEADMASTER, HINDU HIGH SCHOOL, TRIPPLICANE, MADRAS.]

THE amelioration of primary education was a matter of vital importance and they could not neglect it without jettisoning their sense of civic duty and responsibility. These were the words in which, in May last, a member of the Corporation of the City of Calcutta expressed dissatisfaction with the present condition of Elementary Education in that city and enunciated the principle of action to be followed in respect of mass education within its area. The population of school-going age in that city is 1,34,409, and 62,229 or 51.5 per cent. of these are at school. And yet the Commissioners were generally agreed that more money should be spent and more facilities afforded for the imparting of elementary education. In Bombay, the total amount spent on education last year was Rs. 5,20,000, and yet in July last, Mr. Baptista moved a resolution 'that in the opinion of the Corporation the state of primary education in Bombay is unsatisfactory and the Schools Committee be requested to submit proposals for the immediate improvement of the same.' Madras, on the other hand, with but 43 and 28 per cent. respectively of her male and female population of school-going age (calculated at 15 per cent. of the population) at school and a bare recurring expenditure of Rs. 32,000 on elementary education, can boast neither of the advantage of numbers in enrolment as Calcutta, nor of the amount spent on elementary education as Bombay, and yet, we have the following in the latest administration report of the Corporation: "The Corporation has been unable to carry

out the provision of two primary schools for each division of the city. But when, money is scarce, and the claims of sanitation and primary education come into conflict, it is but right and proper that sanitation should take precedence. It is of little use to educate a child, while neglecting what best effort may be made to keep him alive. There are many agencies which provide the three R's, but the responsibility for the public health is primarily on the Corporation."

All of us may not be disposed to assent to the proposition that sanitation should take precedence of education, but even those that do so will do well to remember that the benefits of sanitation, to be well appreciated and taken advantage of, require that the recipients thereof should have at least that modicum of enlightenment which elementary instruction in the three R's ensures. 'The deep-rooted social habit,' to which Mr. Molony attributes the excess of Muhammadan and Hindu over European, Anglo-Indian, or Indian Christian mortality, can wear away only under the beneficent influence of education; and no general improvement in respect of health is possible with a large proportion of the population remaining in such utter ignorance.

To the credit of the Madras Corporation, however, it must be said that education in the city has considerably improved since 1910. In that year, the Corporation appointed a Committee to go into the question of providing buildings for aided elementary schools in the city of Madras, and in pursuance of the recommendations made by that Committee, resolved with the sanction of Government 'to build and maintain 40 elementary schools at the rate of 4 schools a year, the Government agreeing to relieve

the Corporation from all liability to make teaching grants to elementary schools in the city. Accordingly 16 schools have come to be established, though, it should be confessed, even the 40 schools, when fully provided, can accommodate only 8,000 children, which is but a fourth of the population of school-going age in the city.

One chief reason why children are not sent to school is often the absence of one within easy reach. Any scheme, therefore, that may be suggested for adoption, with a view to bring all children into schools, should take into account the localities also, where they are needed most. The following table shows the male population of school-going age, division by division in the city, the number of schools at present provided and the number more that may be required.

Division No.	No. of children between 5 & 10 years of age.	No. of schools provided.	No. of children already at school.	No. of children yet to be brought to school.	Probable No. of schools required.
1	2	3	4	5	6
1	1,330	5	640	581	4
2	2,090	25	1,843	247	3
3	827	8	641	186	2
4	616	2	378	240	1
5	855	9	1,348	...	...
6	1,111	8	1,178	...	...
7	1,897	21	2,105	...	...
8	1,216	8	817	399	3
9	965	8	885	280	2
10	1,577	17	1,182	445	3
11	2,853	16	2,290	68	...
12	1,735	9	1,686	49	...
13	1,387	13	1,347	40	...
14	656	4	394	263	2
15	940	9	1,324	...	...
16	1,588	9	1,118	470	3
17	2,266	9	832	1,454	7
18	1,879	10	1,484	445	3
19	2,054	17	1,981	123	1
20	1,231	8	1,552	...	...
Total.		215	24,677	5,264	33

Note.—I consider one more school enough for Division No. 4, because the Corporation school in Angappa Naciken Street in the same Division that has only recently been started has but 14 pupils on rolls, and may be expected to grow stronger thereby obviating the need for 2 schools. Divisions Nos. 11, 12, 13 require no more schools, because the numbers of children yet to be brought to school are so small that they may find accommodation in the already existing schools.

It would appear from the above table that in Divisions Nos. 5, 6, 7, 11, 15 and 20 there are no children at all between the year 5 and 10 who are not already at school. I am not sure if this is so. In calculating the numbers of children at school, I have taken into account all the children in the elementary schools and those in the Primary Department of Secondary Schools in the respective Divisions. And it is not likely that all these children are ten or below ten years of age. A certain proportion of them must be above ten years of age also. Besides, the figures in column 2 refer to 1911, while those in column 4 refer to 1915-16. In the meanwhile many changes of population may have taken place.

In column 2 in the above table, is to be found the number of children in each Division between 5 and 10 years of age. In a scheme of compulsory education, I think, it is these that we shall consider necessary to bring into our schools. 15 per cent. of the population is usually taken to represent the population of school-going age, but this will include roughly children between 6 and 13 years of age, that is, children who are above the 'elementary school-going age' also. And as we are now concerned with the question of elementary education only, I think I need not take this conventional percentage, to work out my figures.

In column 5, we have the numbers of boys actually at school. These are the totals of the numbers of boys in the elementary schools and those in the primary departments of secondary schools.

The number of schools, already in existence in each Division, is shown in column 3, and

the additional numbers required in column 6. This latter is 33, and, if we deduct therefrom 24, which is the number of schools that the Corporation is already pledged to build and maintain, over and above the 16 already provided, we get 9.

Now as to the cost of the scheme. The number of children between 5 and 10 years of age, that have yet to be brought into school is, as is seen in the above table, 5,284. To this should be added 2,912, which is the number of girls in boys' schools; that is, although the number of children under instruction in boys' schools in the city is 24,677, the number of boys receiving tuition is 24,677 minus 2,912. Thus provision has to be made for the schooling of 5,284 plus 2,912 or 8,196 boys. In 1915-6, there were, in all the Corporation schools, 2,317 pupils and the cost of maintaining them was Rs. 32,301, which works out an average of Rs. 14 per head per year. The cost of educating 8,196 boys will therefore be Rs. 1,14,744. The total annual recurring expenditure to be incurred by the Corporation on their own schools will thus amount to Rs. 1,47,045 (Rs. 32,301 plus Rs. 1,14,744).

If elementary education has to be made compulsory, it has, of course, to be made free also. This would involve private managements in a loss of fee income amounting to nearly Rs. 23,000. This loss will have to be made good by the Government or the Corporation. And, assuming for the moment, that the latter find funds for it, the total cost will increase to Rs. 1,70,045.

But this amount does not represent all the sums spent on elementary education in the city. As I have already said, the Government have relieved the Corporation of all respon-

sibility for grants to aided schools, which now amount to nearly Rs. 65,000. (*Vide* Public Instruction report for 1914-15).

Thus the aggregate recurring cost of giving effect to a scheme of compulsory education for boys of between 5 and 10 years of age in the city, will be Rs. 2,35,045.

One or two points deserve to be kept in mind in this connection. As I have already said in the note appended to the table above, it may not be that all the children whose numbers are noted in column 4 are ten or below 10 years of age. So, the number of children between 5 and 10 years of age, that have yet to be brought into schools, may be larger than 8,196—the figure which we have taken for purposes of our calculation. As against this should be set off the number of children that may be accommodated in the already existing schools, without adding to the staff or otherwise increasing the expenditure. In any case, I shall not be surprised if, when the scheme is put into force, the recurring annual expenditure goes up to 3 lakhs.

How is the Corporation to meet this extra expenditure? The 'normal' income of the Corporation is 28 lakhs, and 3 lakhs, out of this, may perhaps be considered too much, seeing that, at present, they are spending only a tenth of three lakhs on education. The only alternative seems to be for the Government to give the Corporation the benefits of some expanding revenue, as they do in Bombay. In this latter city, there are two sources of revenue, which the Corporation enjoys, which are denied to the sister Corporations of Calcutta and Madras. These two sources of revenue are Town Duties and Imposts on liquor and tobacco, which together fetch about 22 lakhs a year. I am not quite

sure if it is possible or feasible to impose town duties, but no one will question the justice or the feasibility of the Government handing over their license duties on liquor and tobacco to the Corporation for educational expenditure. 'Whisky money' is recognised in England as a legitimate item of revenue to the Educational Department. In the last official year the amount of revenue realized by Government by issue of licenses for the sale of wine in the City of Madras was over three and a half lakhs of rupees, and if only this amount were handed over to the Corporation, elementary education within its area may at once be made free and compulsory. I may add that the Corporation of Calcutta have made a similar suggestion to the Government of Bengal.

SCHOOL BUILDINGS.—The question of school accommodation is very difficult of solution and when one sees that out of 215 elementary schools in the city only 57 are located in buildings of their own, one can understand the magnitude of the problem. The following table shows the 215 schools classified according to managements, and the number of schools under each, located in buildings of their own.

Management.	Total No. of schools.	Held in buildings of their own.	Held in rented buildings.	Held in Chavadies.	Held in Head Master's or Manager's houses.
Mission ...	14	8	11	...	...
Government ...	16	16	...	...	...
Municipal ...	127	13	106	2	7
Non-mission ...	58	26	30	2	...
	215	57	147	4	7

The Corporation have already constructed 20 schools (4 of them have yet to be started) at a cost of nearly 4 lakhs, and in view of the

announcement made in the latest administration report of the Corporation that the portion of the building programme referring to schools 'has been dropped temporarily at least,' it seems rather presumptuous or idle to press for expenditure of additional sums on educational buildings. It should be remembered, however, that children spend more than a fourth part of the day at school, and so, even from the point of view of health and sanitation, which is regarded as the foremost of the duties of the Corporation, it is essential that these children, who are to do the future work of the world, are taught in decent buildings. The only solution of this difficulty will be the adoption of the policy advocated by Mr. Hornell, Director of Public Instruction of Bengal; some time ago, that the Corporation raise a loan for the erection of school buildings and devote their recurring expenditure on elementary education to the payment of the interest on the loan, the Government undertaking the responsibility of maintaining the schools. The amount of loan that will have to be raised to provide both the existing schools and those proposed to be started will be roughly 40 lakhs.

SCHOOLS COMMITTEE.—In their recommendations in respect of Presidency Municipalities, the Royal Commission on Decentralization say that the Madras and Calcutta Corporations may, with advantage, follow the Bombay Corporation in having 'a nominated official Commissioner with an elected Chairman', in preference to a nominated official Chairman, as is at present the case, and that they should have as full control over their expenditure as in Bombay. There is one other matter also, in which, the example of Bombay needs to be copied, and that

is, the creation of a 'Joint Schools Committee' for looking after the educational interests of the city. As the need for educational facilities comes to be more and more felt, and as provision for them comes to be made in greater and greater measure, the administrative work, in connection with this Department of the Corporation's activities, is bound to grow. Fresh and peculiar difficulties incidental to large and highly congested cities will have to be tackled, and even more than that will be the work of persuading people to send their children to schools and advising Government generally on matters pertaining to technical and primary education in the city. All this is too much for an already overworked Corporation or their Standing Committee and it is highly desirable that a separate Schools Committee should be formed. Section 39 of the Bombay City Municipal Act says:

(1) It shall be the duty of the Corporation and of Government, each to appoint four members of a Joint Schools Committee of eight members, for the purpose of giving effect to the provisions as to primary education hereinafter enacted.

(7) The Joint Schools Committee shall administer the school-fund hereinafter defined and prescribed and shall provide thereout for the accommodation and maintenance of primary schools which at any time vest wholly or partly in the Corporation and for otherwise aiding primary education in accordance with bye-laws duly made under section 461, and with rules made or approved by Government in this behalf.

(9) The Joint Schools Committee shall appoint and remove masters, teachers and other persons employed in the primary schools maintained out of the school-fund, and shall direct and control the instruction given in such schools, and the terms and conditions of such instruction, and annex to the aid given to other primary schools such terms as shall seem expedient, subject always to bye-laws duly made under Section 461, and to rules made or approved by Government in this behalf.

PRIMARY SCHOOLS FOR BOYS AND GIRLS IN BRITISH INDIA.

The following statement shows the number of Primary Schools for Boys and Girls, the number of scholars in such schools and the expenditure on such schools in British India for the years 1912-13 and 1914-15.

Province.	Number of Primary Schools.		Number of Scholars in Primary Schools.		Direct Expenditure on Primary Schools.	
	1912-13.	1914-15.	1912-13.	1914-15.	1912-13.	1914-15.
					Rs.	Rs.
Madras	26,504	28,444	1,113,228	1,265,308	50,30,472	63,50,619
Bombay	13,368	10,986	814,409	677,986	62,87,263	61,31,499
Bengal	34,905	35,962	1,204,894	1,224,242	54,84,292	33,22,707
United Provinces	11,166	11,627	580,494	612,113	20,66,236	24,54,495
Punjab	4,398	5,430	229,348	266,647	12,42,748	16,86,048
Burma	5,321	6,769	184,356	239,194	8,48,266	11,45,114
Bihar and Orissa	23,950	23,408	674,496	650,426	21,09,447	25,36,834
Central Provinces and Berar	3,793	4,045	278,776	289,513	12,60,060	14,44,069
Assam	3,790	4,271	156,081	186,878	5,37,787	7,04,009
North-West Frontier Province	364	577	18,943	28,451	99,003	1,60,693
Coorg	90	101	6,466	7,365	33,851	47,412
Delhi	78	92	4,368	5,724	22,954	75,307
Total	127,727	181,712	5,265,861	5,447,850	2,30,31,379	2,66,58,800

The figures for 1912-13 in some provinces include data for certain Native States as explained on pages 5-6 of the Educational Commissioner's published narrative of 'Indian Education in 1914-15.'—Reprinted by the courtesy of the Editors of the "Local Self-Government Gazette," Madras.

THE KINDERGARTEN.

IT was only a few years ago that the Board of Education came to the conclusion that some provision must be made for young children whose home conditions make it unlikely that they will receive in the home the attention that is their due: and accordingly, the Kindergarten was introduced. The Kindergarten is here and here to stay; but it is not as firmly established as are the other parts of the school system. A wave of economy in any community may sweep it away; a Principal who prefers to establish a printing plant that may fit six or eight boys to earn a livelihood or to instil steam sewing machines for a few girls who shall thereby be enabled to cope better with the cold world may discover that the school funds are not sufficient to carry on the Kindergarten. Articles in popular journals or magazines of high repute may criticise inane songs and bad rhymes which would be condemned by any sane person, whether a Kindergarten or otherwise. A few secondary teachers wedded to the idols of militarism and passive docility may find Kindergarten children "too lively." Those who prefer to keep a little animal rather than evolve "an heir of all the ages" may advocate the superiority of the backyard over a cultivated garden. And still the Kindergarten will flourish because the principles which guide it are for ever and everywhere true in human development. Its exponents are not infallible. The weakness of their practice may perhaps be matched by equal failure to realise the perfected ideal in the secondary school. At any rate, they study their problems and they study their children with an enthusiasm sometimes criticised as a fault. The most academic critic is compelled to admit that they have brought into the schools a certain saving grace of love for their work and of zeal for education which has leavened the system. When the Kindergarten was first introduced into Britain its methods were revolutionary and therefore

suspicious. Why should children be sent to school to play? How foolish those lessons of the "Wild Bee's Hiding Place," of the "Wild Flowers' Time and Place," when one should learn to read, write, and cipher? This was thirty years ago. To-day the City Fathers know that "the boy without his play-ground is fatter to the man without a job;" and Municipal play-grounds are provided in every town and city where there is a look to the future.

Froebel's emphasis on sense-training is to-day accentuated by the fresh presentation of its claims by Dr. Montessori.

The dramatic game to which Froebel first gave form as a means of developing initiative, freedom, sympathy and social feeling may be seen in any good secondary school to-day, and the spirit of the Kindergarten rules in these schools.

The group-work and play of the Kindergarten which calls for co-operation, helpfulness, self-subordination and obedience to law is projected into later school-life under the name of social education. We all know the place this social education takes in the public school life of our country; as Wellington said "the battle of Waterloo was won on the fields of Eton."

School-gardens, care of pets and plants, walks and exercises and the blessedness of open air have always been cherished features of the Kindergarten system. In a material age such as ours and in a country which places a premium on height and size and speed of £ s and d., perhaps not the least of educational values is that which attaches to a wise culture of Imagination. The poets who are to sing our songs, the builders of a "City Beautiful," the makers of our Literature and the prophets with a belief that the Best is yet to be—these are all in our schools to-day.

The Kindergarten has made its contribution to education in initiating these many lines of training now working out daily in our school-system

It will always be held as an essential part of the system by those who believe in education by development, by those who can see the oak slumbering in the acorn. The child is father to the man and the promise of manhood is held in the early years when tendencies and habits are formed and dispositions crystallised. The spring is the time to plant gardens: the Kindergarten period is the time for our school and community planting.

Let us consider for a moment what the University thinks of the Kindergarten. This question can best be answered by my seeking to ask and answer another question, "What is the kind of boy or girl the University likes to have come applying to it for admission?"

The University likes to receive the boy or girl who is a good worker. The good worker is one who can undertake labour, is eager for new experiences, is able to acquire new information and accomplishments, and is ready for a little formal training. It keeps them in a larger company of mates than they find at home, under simple, natural and unobtrusive discipline. It trains them in the use of the muscles and their senses, commanding severe exertion, prolonged in time and diverse in condition and force. Too many youths have no idea what hard work is, pampered have they been from their rocking cradles. Hard work imposed on them by the college proves to be an experience sometimes quite beyond them. Such weaklings the college does not want; if they come up weakly knocking at its doors, the college may be obliged to receive them, but if it does receive them, its first duty is to lay upon them hard and heavy tasks.

The University also wants to receive students who know how to play; it finds its end in enjoyment. It realises its completion and completeness in itself. Work is done for an aim outside of and beyond life. In this work-a-day and even work-a-year world, play is essential for the

development of the youth, and also necessary as a method for the welfare of the same youth come to fulness of years. Interested in the fact of development and in the promise of the future, the University is interested in the candidate's seeking admission as being a good player.

The University moreover likes to receive students who have enthusiasm, students to whom life's pleasures form still a cup unquaffed, in whom the emotions if not more commanding are at least as commanding as the intellect, for whom the ordinary adjectives are unavailing and who have a special liking for the superlative. The college like all the rest of humanity knows well that the philosophic mind, the reasoned intelligence and seeing life sanely and soundly, and seeing it whole are sure to come ultimately to the true man, but the college is just as sorry to see this mind come to its too early dawn, as it is to see a delay in its advent. Rather the college wants students who shall remind one that life is at its happy and glorious spring-time.

There is a fourth and last answer which I wish to give to our question. It is that the University wants students who are considerate of, and who are able to co-operate with others. At the beginning each man is an individualist, he learns to be an altruist, a co-operator. If he continues to be an individualist his life becomes bare and barren. If he lays aside selfishness, and lives in and works for others, he soon learns that their lives and characters enter into the treasure-house of his own being. He therefore comes to live the largest life, and do the greatest work, and to enjoy the richest character. It is just at this point that the Kindergarten emerges; for the Kindergarten seeks to train children into these four characteristics—Good Workers, Good Players, Heavy Enthusiasts, and Unselfish Co-operators.

We now have to consider how the Kindergarten child is employed. First, he should be occupied in playful activity which will bring him

variety of experiences, and also allow free expression. Secondly, he must be provided with healthy physical conditions.

• Play may be considered under three heads: First, constructive movement and plays, including hand-work, free-play, imitative and dramatic plays and rhythmic plays. Second, Nature-work, which is the care of animals and plants and gardening, excursions and walks. And third, language-expression, story, rhyme, reading, writing and song.

Hand Work. This should be of the very simplest and much freedom must be allowed. Sometimes in occupational play the teacher limits the choice of material and definitely suggests and guides the children's work; at another time, each child or group of children chooses materials or toys and directs its own activity.

Among the occupations carried on in the Kindergarten, clay-modelling, sand-work, brick-building, paper-cutting, tearing and modelling, toy-making, drawing and painting, at least two hours in the week should be allowed for the children to express themselves quite freely with the above material. The results are often amusing and surprising, but it is the child's self-expression—the key note of Froebel's system. At a Kindergarten in Wiltshire a small boy on being asked to paint any fruit he liked painted something round and yellow which might have been an orange to the mystified teacher—only that it had brown streaks running down it. On the teacher asking the little boy what this was, he said, "Oh that is a lemon." "But what are those brown streaks for?" said the teacher, when out came the superior reply, "That is a lemon with the juice coming out!"

Other occupations are the imitation of activities carried on in the home—such as care of babies, cooking, washing, ironing, house-cleaning. The aim here is two-fold, the representation of life around and the getting of experience

through activity—doing for a purpose. The children are not to be expected to formulate their knowledge of the subject, and to know that direct teaching is given. The children play and in their play come to know more of their environment, thinking and acting upon it in a natural, purposeful way.

On the "Scheme of Work" and Time-Table of the Kindergarten belonging to the Froebel Educational Institute, London, you will read the following—it explains better than I can the value of Free Play. "Free Play is the last word on the Kindergarten scheme of work, but it is really the centre and pivot on which the whole moves. Scheme of play would perhaps be a more appropriate heading. The children play freely and naturally. The organised play with or without material alternates with and is the direct outcome of the spontaneous activity of the children. The Kindergarten is intimately connected with, and may be considered an expansion of the happy home-life of the children the Kindergarten teacher acting in the capacity of mother for the time being, entering into the spontaneous play of the children, guiding and directing play when necessary. Free play helps the child to give expression to his thoughts and fancies. The thoughts themselves become clearer in the process, and the child gains power in directing his own activity. Individual and social life are both strengthened under the most natural conditions."

Rhythmic Plays. At this stage, pleasure comes largely from physical movements, it is not necessarily the expression of an idea; jumping, hopping, dancing, clapping and use of the vocal organs are the child's natural games, the teacher takes the opportunity to use this impulsive activity and by introducing the controlling power of music helps the children to regulate and gradually develop this wild energy, till it becomes the rhythmic and purposeful expression of ideas. M. Jacque Dalcrois has brought this

rhythmic movement up to a high art, and although he does intend his eurhythmics for older children and grown-ups, yet at the Kindergarten I have already alluded to the F. E. I., he undertook a class of five-year-olds and had excellent results.

Imitative Plays. These range from the simplest, spontaneous imitations of animal noises and movements to the more elaborate dramatisation of life around, or the ideas conveyed by story, song or rhyme. In early stages the child seizes upon one prominent feature for its model and acts on that—he neighs, mews or roars. He imitates the movements of interesting objects uniting these with the noise—for example, trains dogs, etc. The other day at the Saidapet Kindergarten a student was telling the story of the Fox and the Crow; at the conclusion of the story, he allowed the children to dramatise it, and not wanting a number of children to sit idle, he suggested to them that they should all represent trees of that forest. Suddenly, without any warning all the children began to nod and shake themselves in all directions. On the distracted student asking what all this was about, the children with one voice shouted out, "We are the trees rocked by a fierce wind!"

Nature Work. Little children are naturally very fond of animals and plants, but at this stage, they are workers rather than observers. So, we give them pets to play with and take care of; we give them a plant table on which they keep the seeds they have sown or the flowers they have gathered; we provide them with a garden in which they could attend to, and watch many beautiful insects and birds, which come there for their morning-meal. In one Kindergarten that I know of in London the children send the flowers from their garden once a week to the hospital; at the present time these flowers are being very much enjoyed by the wounded soldiers.

Language-training has an important place in the Kindergarten. Actual experiences are in the

early years more potent factors in language-training, than even story, rhyme or reading; so, we encourage our children to talk freely; every day, we have about ten minutes for what is called news; when each child tells some little thing which might have attracted its attention. Sometimes to vary the monotony, the teacher suggests some subject and each child has to say a few words on that subject. What they say is sometimes very quaint philosophy: one small boy on having to say something about bravery said: "Some boys are brave, because they always play with little boys; some boys are brave, because their legs are too short to run away; and most boys are brave, because some one is, looking at them." I am afraid he is not far from the truth.

Story, of course, is one of the favourite items on the programme of the Kindergarten child: but there is so much one could say about story, that it would require a whole paper for itself. I shall just content myself with saying that the stories although they must be above the level of the children's own powers of expression, must yet be simple enough for them to realise the ideas which they convey; so that new ideas and new forms of expression are gained.

Reading is not begun very early, and when it is started the "look and say" or "picture" method is the one most in vogue. I am glad to be able to say that we are not slaves of Phonetics in the Kindergarten although we use it when we need it; but we then generally use Nellie Dale's adaptation of it.

Number. In the Kindergarten the child does not have actual lessons in number, but he uses number in a practical, concrete way. He and his companions are asked to march in twos; if this is done well, they march in fours; he divides, puts together, transforms, distinguishes form from colour, creates, at first-hand mathematical formulæ, compares form and size, measures, plays at keeping shops thus learning change. He applies what he learns, he discovers and recognises through original experience.

Geography. The child in the Kindergarten learns position and direction and other elements of geography; he visits a railyard across the way and afterwards builds a railyard in the sand; he visits a business street and reproduces it afterwards with bricks in right direction from his school or home. He sees the river, he visits a stream, he records the weather; simple geography of course—very simple; but the surest foundation for later lessons in a book labelled "Geography."

What of the child's physical conditions? The ideal is to let him learn in the open, let him live as much as possible with Nature; but failing this let us give him a large well-ventilated room, with as much floor-space as possible; let his chairs and tables be such that they could be easily moved out of sight if necessary. At least one hour should be put aside in the day for sleep. Provision should be made for the child to wash his hands. Breathing exercises should be gone through every morning, but the child should get most of his physical exercise during play.

The aim of the Kindergarten is to send into the High School an independent, self-reliant child, who is neither bashful nor precocious. We would teach the child of toil, that work is the necessary first step to all true joy; we would teach the child of leisure, the value and dignity of service; and its indispensableness to true happiness in each and every life. To every teacher is given the privilege of working with God at the very fountain of Life; with this privilege is granted the largest opportunity to work for the future of our Empire in helping to train its citizens. What if his ideal be not realised in this generation; the world will be the better for his good work and lofty aims.

"There shall never be one lost good—what was,
Shall live as before
On the earth the broken arcs; in heaven
A perfect round."

CORRIE GORDON.

ABALYA BAI OF INDORE.

PERISHTA says of Sultana Razia who ruled in Delhi for four years between 1236 and 1240 A.D. that she "was endowed with every princely virtue and those who scrutinize her actions most severely will find in her no fault but that she was a woman." A brighter and more loveable picture than the masculine Slave Queen is presented by Abalya Bai who succeeded to the administration of the Holkar State in 1765 A.D. and carried it on with extraordinary skill for a long period of over thirty years. The people of Malwa have sainted her and have been regarding her as an *avatar*. And Sir John Malcolm who was in military and political charge of Central India during and after the critical period when the Peishwa's Dominions were annexed and the Pindaris were suppressed, and who had numerous and authentic sources of information regarding the acts and measures of Abalya Bai, wrote about her in these eulogistic terms: "A female without vanity, a bigot without intolerance; a mind imbued with the deepest superstition, yet receiving no impressions except what promoted the happiness of those under her influence; a being exercising in the most active and able manner despotic power, not merely with sincere humility, but under the severest moral restraint that a strict conscience could impose on human action; and all this combined with the greatest indulgence for the weakness and faults of others."*

Mulhar Rao Holkar, the founder of the Indore State, was one of the few Mahrattas that escaped from the disaster which befell them at Panipat; and he died a few years later. His son Kundera Rao who predeceased him, had left by his wife, the famous Abalya Bai, one boy and one girl. The youth who succeeded to the power and possessions of his grand-father was of a weak and unsettled

* A Memoir of Central India including Malwa, by Sir John Malcolm. (1824) Vol. 1, p. 194.

intellect and died nine months after his elevation. Abalya Bai soon resolved that as the wife and the mother respectively of the two last representatives of the family, she had the exclusive power of selecting the successor; and she valiantly opposed the insidious suggestion of Gangadar Jaiswant, her Brahmin minister, that some child distantly related to the Holkar family should be adopted as the successor to the throne—an ostensible trick to secure his own continuance in authority. He was backed up by Ragnath Rao, the uncle of the reigning Peishwa, "that name of ill omen to all, and to none more than the English," whose assent to the proposal was regarded as conclusive of the whole affair. Abalya Bai, on hearing of Ragnath Rao's preparations to compel her into compliance, earnestly requested him not to make war on a woman, from which he might incur disgrace, but could never derive honour.

She made every preparation for hostilities, appealed to the sense of justice of the other Maharatta chiefs, and induced Mahdaji Sindia, Janoji Bhonsle and the Peishwa himself to declare in her favour. After she was confirmed in the possession of the throne of Indore, she elected Takajee Holkar, a chief of the same clan but in no way related to the founder of the dynasty, and a plain unaffected soldier, to the office of commander and to fulfil those duties which as a woman she herself could not perform. Such a division of authority, which from the nature of the disturbed times and from common practice, could not have existed even for a month, continued for close upon thirty years undisturbed either by jealousy on the one hand or ambition on the other. Takajee never lost his sense of respect and obligation to his benefactress, always called her, though younger in years, mother, fulfilled all her expectations and was ever attentive, faithful and obedient.

Takajee continued to exercise no duties beyond those of the commander of the army and the chief

lector of the revenues in his neighbourhood, wherever he happened to be. Abalya Bai remained the actual and recognised head of the administration, controlled all the accounts of receipts and disbursements and retained her supremacy in all matters relating to peace and war and in the foreign relations of the State. She daily sat for a considerable period in open *darbar* transacting business, hearing every complaint in person and being always easily accessible. "Her first principle of Government appears to have been moderate assessment and an almost sacred respect for the native rights of village officers and proprietors of land."

On all points connected with the administration of justice, she is represented as not only patient, but unwearied in the investigation of the most insignificant causes, when appeals were made to her decision. She used to say that she deemed herself answerable to God for every exercise of power, and when urged by her ministers to acts of extreme severity, was wont to exclaim: "Let us mortals beware how we destroy the work of the Almighty."

Details of her private life marked by prayer, abstinence and labour with little or no variation, were supplied to Sir John Malcolm by one Baramal Dada, Governor of the town of Maheshwar on the Nerbaddha who was for a long time personal attendant to the Queen. She rose one hour before day-break to say her morning prayers and perform her ablutions; and after hearing the sacred books read for some time, she distributed alms and gave food in person to a number of Brahmins. A slight breakfast, always of vegetable diet followed. Prayers and a short siesta occupied her till two in the afternoon when she went into the *darbar* where she remained till six in the evening. State business again recommenced about nine in the night and continued till eleven.

Indore was raised by her from a village into a wealthy city; while the Gonds and Bhils who inhabit the mountainous tracts of Khandesh and

Malwa were pacified and their relations with her government settled on a satisfactory basis. She first tried gentle measures of conciliation with this class, recognised their ancient right to a small duty on goods passing through their hills and established military posts in their midst. But in return for these concessions and for the grants she made to them of waste lands, she exacted from them an obligation to protect the roads in their neighbourhood and to recover any property that was stolen within their midst. Nor was she less generous and politic towards the petty Rajput Thakurs, in Malwa who in the inevitable confusion of the latter half of the eighteenth century, had established a claim to a portion of the revenue. They were almost all brought to fair and amicable terms and remained peaceful and contented subjects until her death. "The fond object of her life was to promote the prosperity of all round her; she rejoiced, we are told, when she saw bankers, merchants, farmers, and cultivators, rise to affluence, and so far from deeming their increased wealth a ground of exaction she considered it a legitimate claim to increased favour and protection." She disdained to follow up the practice by which the State used to claim a large share of the property of men who died without heirs; and there are several instances on record to show that she refused offers which were almost thrust upon her. The success of her internal administration was wonderful; and under her, Indore sustained its rank as one of the principal branches of the Marhatta confederacy.

Ahalya Bai's correspondence extended to even the most remote parts of India and her accredited agents (Vakils) resided at Hyderabad, Poona, Nagpur, Seringsapatam, Lucknow and Calcutta; while inferior agents remained at the courts of the petty Rajas especially those from whom tribute was collected. She carefully preserved a close correspondence with the court of the Peishwa, and was very guarded in her dealings with Mahadaji Scindia whose friendship she cultivated

throughout life in the fullest sense of its importance. His reputation and military power gave a strength to her administration, which from the then confused intermingling of the territories of Indore and Gwalior, could have been given from no other quarter.

Her munificence was great, and she spent considerable sums in constructing religious edifices, dharmasalas and wells throughout Malwa. In particular she constructed a road with great labour and cost over the Vindhya range at a place where it is almost perpendicular. Her charity spread to all the principal places of pilgrimage as far as Kedarinath and Ramesvaram, Puri and Dwarka. Her principal structures are at Gaya where a statue of herself adoring the image of Mahadeva is found in one of the temples. Ganges water was supplied by her command to wash the images of various temples. Her charity did not limit itself to mere donations to temples, but displayed the truest character of benevolence and piety. In the true spirit of the great Asoka, she evinced an extraordinary compassion for the beasts of the field and the birds of the air and the fish of the river. "The peasants near Maheshwar used in hot days to see their yoke of oxen stopped during their labour to be refreshed with water brought by a servant of Ahalya Bai; while fields she had purchased were covered with flocks of birds that had been driven by the cultivators from destroying their grain."

Such universal sympathy and sincerity of piety naturally had their own reward. "Among the princes of her nation, it would have been looked upon as sacrilege to have become her enemy, or indeed not to have defended her against any hostile attempt. She was considered by all in the same light. The Nizam of the Deccan and Tipu Sultan granted her the same respect as the Peishwa; and Mahomedans joined with the Hindus in prayers for her long life and prosperity." This was the reply given to Sir John Malcolm by an intelligent

Brahmin who was one of the principal officers of the Peishwa, during the last years of her administration, and to whom Malcolm had expressed a doubt of the wisdom of Ahalya Bai's conduct.

Ahalya Bai's domestic life was sorrowful and one series of afflictions beginning to end. Becoming a widow at twenty, she had the misfortune of seeing her only son Malee Rao whose conduct was marked by extremes of folly, dying after nine months of his elevation to the throne. The rumour that Ahalya Bai herself hastened the death of her demoniac offspring is unfounded, being proved false by every tittle of evidence available. Besides Malee Rao she had one daughter Mutchai Bai who was married and had one son, who after reaching manhood died. Mutchai Bai soon afterwards lost her husband also and committed Sati in spite of all the entreaties and persuasions of Ahalya Bai who was thus in her old age, left desolate and alone.

She died at the age of sixty (1795 A.D.) worn out with sorrow and weakened by the innumerable fasts which she had imposed on herself. Her personal appearance was remarkable. She was reported to have been of "middle stature and very thin; her complexion was of a dark olive and clear; and her countenance was agreeable and expressive of that goodness which marked every action of her life. She was very cheerful and seldom in anger, possessed a cultivated mind, was quick and clever in the transaction of public business, and even flattery appears to have been lost upon her." There is an anecdote about her appearance which is too interesting to be passed over. When Ananta Bai, the wicked wife of Raghunatha Rao and mother of the last Peishwa Baji Rao II, was at Uhar in Central India, she sent a female attendant to bring her an account of the looks of Ahalya Bai, of whose fame she was jealous. The maid is reported to have said on her return, "Ahalya Bai has not beautiful fea-

tures, but a heavenly light is on her countenance." "But she is not handsome, you say," was the only reply of her mistress who felt consolation in this part of the report.* A Brahmin once wrote a book in her praise which she heard read with patience. Then she observed that she was a weak sinful woman and not deserving of such fine encomiums and directed the book to be thrown into the Nerbadha.

Such is the life of a noble heroine who preserved her country for about thirty years in a state of profound peace and rendered her subjects happy and herself adored. Free from the weaknesses of the earlier Marhatta heroine Tara Bai, and equally far removed from the pretended sanctity and ill-concealed worldly ambition of her successor in power, Talsa Bai, Ahalya Bai presents a picture which can well be compared with those of the brightest women in other lands. The times in which she lived and her own unobtrusiveness have prevented her gaining such a prominent place in historical works as she very well deserves. And we hope with the growing spirit of historical research and scholarship that increasing attention will be paid to the details of her character and administration.

C. S. SRINIVASACHARI.

* Malcolm—Central India, Volume I notes on page 192.

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* Malcolm—The Native States of India, Page 182.

LITERATURE AND CULTURE.*

I.

THIS subject has engaged the serious attention of all thinkers and educationists among civilized nations ever since the dawn of history. And at the present moment no subject is being more hotly debated from different, and often conflicting, points of view than the place of literature in the education of the future. The World War has brought into great prominence the question about the relative importance and claims of Literature and Science in modern education. Some faddists even go to the ludicrous extent of advocating the one to the total exclusion of the other; but no sober-minded person will deny that unless literature and science are both allotted an equally dominant place in the educational scheme of any country, that nation will be adopting a suicidal policy.

The humanizing and cultural value of literature has long been recognised, and the dominant force of English education has for ages been purely literary, even the modern languages like French and German being assigned a far less important place than the ancient classics. And ever since the introduction of English education in India, the same literary spirit has permeated and governed our scheme of education, to the culpable neglect of science. Even then, has the study of English literature been such as to give us the fairest and noblest fruit of a literary education, viz., Culture? A sad and pathetic No! It seems to me that as long as the different stages of our education continue to be dominated by the incubus of examinations, no better results could be dreamt of. I seriously doubt whether the aim of promoting culture is at all kept in view in teaching English literature in our schools and colleges. This sacrifice of the higher and

more valuable aims of teaching literature to meet the nearer and baser demand of examinations has injuriously reacted upon the older members of the educated section of the society. We often hear the charge levelled at our young men that, after they enter life or some profession, they have no intellectual hobbies of their own nor do they show any desire for self-culture or the promotion of knowledge by study or research. Is this indifference or ennui unnatural when we bear in mind that no true taste for reading has been implanted in their minds by their education at school or college? The sooner this woeful state of barrenness is remedied, the better for the future of our nation.

In advocating the cause of literature as an essential ingredient of culture I do not in the least ignore or belittle the importance of the study of History and Physical Science. On the other hand, ignorance of the fundamental laws governing the objects and phenomena of nature, or the several stages in the evolution of man from his primeval state of barbarism to a high and enlightened state of civilisation, would detract a great deal from a man's claim to culture. As a rational individual and unit of society he should know them. But my object here is to evaluate the function of literature as a potent means of culture.

II.

Literature is one of the most potent factors in the fostering of culture. Literature deals essentially with life and the aim of culture is to elevate human life. If knowledge is power, the knowledge derived from literature should endow a man with the dynamic, and at the same time, static, power of culture. Culture is the ripest fruit of the gigantic tree of literature. Literature is an important human document and is of abiding human significance. Along with this general human interest it yields also pure æsthetic pleasure by its artistic method of treatment. Literature is the representation and inter-

pretation of life in its more permanent and universal aspects." The experiences, observations, ideas, fancies and emotions of the human mind, find expression in literature. It embodies expression of moral truth and human emotion, "touched with a certain largeness, sanity and attraction of form." A seeker after culture expects from the study of literature influences and forces that tend to develop in him a broad outlook on life and its problems, a wide sympathy and enlightened tastes, a catholicity of spirit and breadth of view, æsthetic insight and mental "sweetness and light." Literature is a very mighty instrument in the moulding of character; because it arms us with reason and knowledge, instils in us, steadfastness and courage, and inspires us with public spirit and public virtue. Further, it liberates the mind from error and lethargy, refines it, rouses the imagination and sympathies, and quickens the moral sensibilities. Such is the educative and cultural value of literature.

But if all these beneficial results are to be achieved by a man of culture from the study of literature, he should not only study the matter and content of the books but dive deep into the heart of the book until he is able to enter into the personal experience of the author, to share it with him, to know him as an individual; because "a good book is the precious life-blood of a master-spirit." It is only by living contact with the noble souls and magnetic personalities of these literary geniuses that our minds will be regenerated by their quickening influence, by "letting their life-blood flow freely into our veins." A spirit of sympathy with our author is quite essential for a proper and genuine understanding of his works. The close contact with different kinds of personality increases our elasticity of mind, breadth of outlook and catholicity of taste and judgment. To know the tender-hearted Lamb through his quaintly humorous *Eclogues of Elia*, the genial Addison

through his fascinating essays in the *Spectator*, the invigorating Carlyle through his beneficent and mighty *Heroes*, and the dictatorial Dr. Johnson through his weighty and wise conversations, involves a great intellectual and moral struggle; but the result is wholesome and elevating. It is only when we have established personal intercourse with them, known them and loved them as intimate friends, recognised their "genuine voices," and felt their ennobling and life-giving influence on our thoughts and ideals, that the cultured man might be considered to have achieved one of the noblest purposes in the study of literature.

III.

Culture is "the desire to augment the excellence of our nature." It is an attitude of the mind and not an actual possession of it. Its aim is a study of perfection and a pursuit of perfection in individual and social life. It exhibits itself in the love of one's neighbour, impulses towards noble actions and the passionate desire of doing good to one's fellow-man. Culture is not, as it is mistakenly regarded, synonymous with philological learning or scholarship. It is, as Matthew Arnold, himself a great apostle and embodiment of culture, beautifully says, "an inward spiritual activity exhibiting sweetness and light." It is a condition arrived at after a long and arduous process of mental evolution. It should be cultivated by careful observation, reading and thinking. In addition to the acquisition of some of these qualities by one's own study of the life and society around, the best means for each individual is by coming into living contact with the masterpieces of such immortal souls as Homer, Milton, Shakespeare and Kalidasa, Johnson and Ruskin, Shelley and Goethe, who are all

"Souls tempered with fire

Fervent, heroic and good

Helpers and friends of mankind."

A man of culture should be a *L'Allegro*, and a *Penseroso* harmoniously combined. He is

* The Inaugural Address of the Victoria College Literary Society, Palghat, delivered by Mr. P. K. Ananta-Varman Iyer, M.A., LL.B.

neither flippantly light-hearted nor morosely melancholy. He is cheerful and serious and grave and takes life as a serious and responsible business. All his thoughts and deeds are guided and moulded by high ideals. He is ever a seeker after knowledge and truth. His mind always craves for an endless expansion of its powers and for a gradual growth in wisdom and beauty. He always strives for the attainment of higher and higher levels of moral dignity and virtue. Actuated by firm faith and guided by firm will of an ennobling kind in all his life's activities, he is never the tame creature of circumstances, never takes a blow lying down, but with dauntless spirit resists and overcomes them. He rises triumphant over mere chance of luck. Himself largely free from error and misery he strives for the removal of error and misery from the society around him and devotes himself incessantly for the service of his Fellow-men. To him duty and charity are the twin-gods. He accepts reason and reason alone as his guide in the conduct of life. He is every inch a liberal. Bigotry and irrationality can have no room in a cultured mind. He is tolerant of the opinions of others, catholic in his tastes and interests and always open to the reception of new ideas from whatever source. He is naturally discontented with the existing state of things and manfully tries to better them.

A man of culture is a lover of mankind, flowing with the milk of human kindness, not in theory but in practice. His life is dedicated to the service of humanity. Social motives, the spirit of social service, the desire of enhancing human worth and dignity, the attempt to promote the happiness of mankind by the diffusion of knowledge and virtue, form a dominant motive of his life. To replace darkness by light, misery by happiness, evil by good in his humble sphere of work, is regarded by him as a sacred duty. Lastly he incessantly strives for the expansion and development of his soul in the direction of purity and power, grace and serenity, wisdom and

virtue. He is a noble embodiment of plain living and high thinking, never swerving from his philosophic calm, but always endeavouring to leave the world better than he found it. We might mention Plato, Cicero, Shakespeare, Molière, Milton, Addison, Goethe and Tolstoy as a few genuine instances of "kings of thought" and culture.

IV.

The highest form of literature that inspires and nourishes the growth of culture is poetry. Poetry, as Courthope says, is "the art of producing pleasure by the just expression of imaginative thought and feeling in metrical language." It aims at the interpretation of life in treating of the facts, experiences and the problems of human life by appealing to our imagination and feelings. As a man of culture is influenced by high ideals in his daily conduct and actions, no better tonic than this idealising spirit of poetry can be imagined for the sustenance of his intellectual and moral life. His aspirations after a noble life are encouraged and strengthened by the influence of poetry that instils in him a desire to discover this good, the true and the beautiful in all that surrounds him. The enervating influences of the dull realities and the dry-as-dust every day problems of life have to be counteracted by the romantic appeal of poetry. To let the mind roam now and then in Fairylands and scenes of Romance, to let the imagination play occasionally in Elysian fields and Arcadias, to let the soul dwell for a time in a Utopia or in a new Atlantis, has a bracing and healthy effect. The knowledge and realisation of the unimaginable sufferings of Shelley's Prometheus, "the saviour of mankind," the tragic and heroic experiences of Dante in the Inferno, or the grievous and often inevitable adventures of the noble, almost divine, Ulysses, rouse to greater vitality the cultured man's love of mankind.

"Poetry is the stuff of which our life is made." It should be our endeavour to excite and quicken

this latent poetical instinct in each individual. The spirit of poetry can be kindled only by contact with such master-minds as Homer and Milton, Wordsworth and Shelley, Tennyson and Browning, Goethe and Kalidasa—great souls "robed in dazzling immortality," and in whom the spirit of beauty is "with inward glory crowned." They infuse into us the love of beauty in life and in nature, the pursuit of truth, the craving for wisdom, the striving after higher and nobler ideals of life. Their "mental offsprings,"—the men and women of their creation, embodiments of love, truth or innocence, creatures of larger intellects, greater virtues and higher charms,—stir our deeper feelings and passions, and appeal to our imagination thus transfiguring the grosser and baser elements in our nature. The melody of language, "the passion-winged ministers of thought," the sense of harmony, produced by description of outside scenery and objects, tends to rouse the inner sense of harmony in the reader and thus contribute to his æsthetic development. Who has not felt the irresistible charm of Milton's happy Eden, Keats' enthralling Nightingale, Shelley's soaring Skylark, or Wordsworth's darling Lucy? The imaginative appeal and the power of moral awakening of the Ode, one of the mighty forms of lyrical expression is well known. The inspiring power of the *Tintern Abbey* and the *Immortality Ode*, the spiritual charm of the *Nativity Ode*, the exquisitely beautiful *Ode on a Grecian Urn* and *To Psyche*, and Coleridge's pathetic *Ode to the Departing Year*, will be within the experience of every discriminating reader. What modern reader has not felt the ineffable and haunting beauty and charm of "the fine threads of rare and subtle thought" of *The Gitanjali* and *The Gardener*? Similarly, the modern Elegy, as a memorial tribute to some great person, permeated more or less by a reflective and melancholy spirit brooding over the deeper problems of life and death, has an important function in moulding the

cultured mind by teaching him the vanity and transiency of material greatness and power. The transcendental spirit of grief of the *Adonais* and the perennially interesting tribute of mourning friendship and of aspirant and happy love of the *In Memoriam* have always an imaginative appeal to the cultured mind.

Nor should the aspirant after culture neglect the potent influence of the poetry of Nature. It is essentially a modern conception. Nature, as the beneficent mother and the kind nurse, the inspiring presence and "breathing balm," is a new idea. In the midst of our "doubts, disputes, distractions and fears," the fret and fever of modern life, Nature, in the noble words of Wordsworth, is the surest

* Anchor of my purest thoughts, the nurse,
The guide, the guardian of my heart, the soul
Of all my moral being."

The beautiful sights and sweet sounds of Nature, either the simpler beauties and charms, or the grand and sublime manifestations, are susceptible of potent influence on our mind and soul. Nature, as a silent sympathiser and spiritual companion realised by Wordsworth, as a mystical revelation of the one Eternal Spirit idealised in the vision of Shelley, as a ravishing bride the sensuous charm of whose joyous beauty was keenly and deeply felt by Keats, as a symbol of absolute freedom in her storms and calms imagined and expressed by Byron, and as a refuge and solace to the fretful and restless heart sought by Arnold,—shall the man of culture forego the inspiring, consoling and healing power of Nature?

And lastly, to find some firm anchor for the restless soul, it is necessary to satisfy its craving for something absolute, perfect, infinite and eternal. And we shall not do better than seek our haven, as revealed by the pioneers of the transcendental movement in England, viz., Coleridge, Wordsworth and Shelley,—in that Universal Spirit, manifested to "the gaze of imaginative faith in the life of the world around

as, in the most august and imperial faculties of the human soul and in the progress of the race."

V.

The man of culture, being not merely a dreamer but a man of action and student of humanity, should neglect no fountain of knowledge which would give him an insight into human nature. And no form of literature is better calculated to develop a true knowledge of the shallows and depths of the human mind than the Drama. The drama reflects in miniature the vast panorama of human life. As it imitates action, by representing personages, introduced into it as real and living, as acting under the impulse of various emotions and motives, its human interest is invaluable. To the man of culture, the plot, however absorbing in interest, is only of secondary importance; the study of character, is his prime object. Our interest in the men and women in real life, or our impression of historical personages, arises from their individual character; and a dramatic character is generally sufficiently marked in distinctive features to interest our imagination, and these individual traits are exhibited under the operation of particular circumstances. A study of various complex characters, good or bad, the manner in which they behave or act in different circumstances under the sway of conflicting motives and passions, affords the best training for the student of human life, its springs of action and its problems. The appeal of the drama is both intellectual and moral.

The comedy addresses itself to our sense of the ridiculous, its subjects being the vices and moral infirmities of society, the representation of which is capable of touching the springs of laughter in us. There are so many comic incidents and scenes being enacted in the society around us daily,—innumerable Mock-Doctors and Mis-Adventures, Good-natured Men and Ladies stooping to Conquer, Rivals and Schools for Scandal,

Merry Wives and Untamed Shrews; Men in their Humour and Man out of Humour, and All Fools and Coxcombs,—that to have a true appreciation of their nature and functions in society, a study of the vast gallery of comic portraits created by Shakespeare, Ben Jonson, Molière, Ibsen, Goldsmith, Sheridan and others would act as a healthy moral tonic. To roam over the wide comic world in the society of characters, representing all subtle shades of character, ranging from the resourceful Falstaff to the dissembling Tarbuffe, from the melancholy Jacques to the sad Antonio, from Shallow to Dull, from the extravagant Charles Surface to the prosy Harcourt, from the charming Bendick and Beatrice to the fascinating Bassanio and Portia, from the miserly Sir Giles Overreach to the cowardly Captain Bobadil, and from the intriguing Mrs. Page to the voluble Mrs. Quickly,—contributes in a large measure to our knowledge of the complex elements of human society. Who does not love them in spite of their minor shortcomings, who does not laugh at and with them for their foibles and tricks, and who is not richer in mind for a knowledge of these men and women from all ranks of society? They exhilarate us in our happy moments, lighten our burdened minds and enliven and cheer us in our depression and gloom.

Still more indispensable as a wholesome moral and spiritual discipline is the study of Tragedy to the cultured mind. Tragedy represents the stronger and deeper emotions or passions at work and sounds the depths of deeper currents of the human heart. In the midst of the petty troubles and distractions that disturb without elevating the mind, the sympathetic participation in the greater griefs, outer strifes, and inner struggles of strong souls, which elevates while it excites the mind employed on contemplating them, is the most efficacious mental training imaginable. The tragic characters, with their calamities and sufferings, passions and struggles, rouse our pity and terror. It is on this "participation" or

purging effect on the mind that the importance of tragedy depends. We often see the spiritual forces in the human spirit, its doubts and desires, scruples and ideas, at war with blind external facts or circumstances and often fighting a losing battle. When we see the frank and generous Othello's mind poisoned and goaded by the arch-fiend Iago, the good but self-willed Lear undergoing heart-rending sufferings at the hands of his monstrous daughters, the noble King Nala as an exile from his own kingdom, the innocent Sakuntala subjected to ignoble treatment and mental agony by her forgetful husband, the tragic and pathetic experiences of Malati (The Indian Juliet), the undeserved but heroically endured sufferings of Antigone, and the tragic end of the gentle, truth-loving and devoted Cordelia,—do not our hearts go out to them, do we not feel their anguish as ours, weep with them and sympathise with them?

The man of culture often sees in the world vice triumphing over virtue, crime tyrannising over innocence, and his sense of justice is rudely shocked. The only antidote to this pessimistic tendency is the genuine study of great tragedy. When we see a noble soul like Hamlet, subject to some special predisposed mental defect, borne on an irresistible current towards a catastrophe unable to resist the pressure of external forces, being woefully wasted and ruined, we are often tempted to doubt the Divine Government of this world, turn cynic, and attribute everything to a blind and malicious Destiny. Though the incidents of the tragedy are deeply painful, the effect is not depressing; because our sympathies are roused, our passions are stirred, our feelings are chastened, and we somehow reconcile the tragic effect with an original cause and satisfy ourselves about the unerring operation of the "moral order" governing the universe. They teach us high moral truth without any conscious didactic purpose. Again, when we see Harischandra, a noble and heroic king, sacrificing

everything,—even kingdom, riches, wife, child and personal freedom,—at the altar of Truth and undergoing the severest martyrdom for the maintenance of truth, though our hearts are often torn by passions and lacerated by torments, our moral consciousness is amply satisfied by the final glorious triumph of Truth over every imaginable material obstacle. It is this moral and spiritual appeal of such great tragedies, that touch on the vital significance of the mystery of life, that leaves a profound and abiding influence on our souls. This imaginative experience and emotional realisation of the woes and agonies of noble souls contribute to the balance of soul or equanimity of temper, characteristic of the cultured mind.

VI.

As a "criticism of life" the Novel, in modern literature, has usurped the place of, or at least replaced, the Drama. Identical with the drama, in its subject-matter and its constituent elements, the novelist has to expound his interpretation or philosophy of life. By its greater freedom of movement, breadth and flexibility, it has replaced the drama. The true function of the novel is not merely to provide amusement for the leisure hour or pleasant diversion from the strain of practical life,—and I do not include in this category modern novels whose only or highest function, aim or capacity is such and no more,—but to deal with life and its problems, its passions and conflicts. On the comic or tragic side, it should concern itself with the moral or ethical significance of human affairs and events. Whether the novel is intended to depict contemporary manners, or to tell a pleasant or pathetic story appealing to our moral sensibilities, or to give a romantic portraiture of idealised men and scenes, or to revivify and represent past historic epochs and personages, or to present a synthesis of the complex life in its varied aspects,—to the man of culture it is invaluable, nay indispensable. Because his aim is to gauge

and arrive at a correct and true estimate of the greatness or littleness, merits or defects, of the society around him.

Fielding, with his wide and first-hand knowledge of life gained by hard experiences, and his masculine and artistic treatment of *Tom Jones*; Goldsmith, with his sincere and simple treatment of the delightful and pathetic story of *The Vicar of Wakefield*; Jane Austen's charming, vivacious and realistic portraiture of the common place things and characters and manners of her society in her comic *Pride and Prejudice*; and George Elliot, with her sympathetic painting of country manners, touched at the same time with her philosophic insight, keen analysis of spiritual emotion, and the ethical value of human actions in her *Adam Bede* and *Mill on the Floss*,—teach us how to observe, what to discover in, and how to judge, the motives, actions and characters of the men and women in whose society we move. *Robinson Crusoe* and *Don Quixote* are not merely stories of exciting adventure and humorous incidents but genuine pictures of some of the noblest and subtlest ideas and emotions embodying a high and true philosophy of life. Scott is a large-hearted and humane man of the world who, with his instinctive virtue, genial sanity, broad sympathies and great sweetness of disposition, took life generously and heartily. His historical romances bring to life great historic personages and scenes such as Elizabeth, Richard Cour-de-Lion, James I. and Louis XI., and in doing so his great personality infuses a higher kind of truth and artistic reality into past history; and we, as a nation, have yet to be inspired by him to breathe new life into the dead bones of our great heroes who lived in the Epic age, or in the glorious days of the Rajputs, Moghals, Mahrattas, Sikhs and other ages. The Indian nation is eagerly awaiting the advent of an Indian Scott to immortalize some of her heroic sons of the past.

Again, the man of culture is indebted to Thackeray and Meredith. Thackeray often misunderstood as a cynic, was a cosmopolitan and a highly cultured man; his intellect was of a mag-

culine strength, but his heart of extreme sensitiveness; he was keenly alive to the tragic elements of human life, behind the show of which he always heard "the still sad music of humanity;" he had a genuine vein of high religious feeling. Though he often wept, his heart being overcome by the awful tragedy of human life, and though he set a high value on virtue, honour, love, courage and other noble traits, he was keenly alive to the many vices and defects eating into the very vitals of the body politic; so he set himself as the censor and satirist of the morals of his age. This was his crime. He conscientiously believed that he had a definite philosophy, a social message to deliver to his contemporaries; and irony, "the only defence of the shy and sensitive man," was the instrument he adopted. He knew that simple and pious Newcomes and Amelia Sedleys existed in society; but he also painfully knew that Osbornes and Lord Steynes, Becky Sharps and Beatrix Esmonds with their heartless and unscrupulous actions, vices and intrigues made life in this "Vanity Fair" very dark, mean and despicable. Do not snobs, hypocrites, parasites and toadies roam about in our society? Should we not detect them, expose their follies, lash their vices and hold up to ridicule and contempt the roguery, meanness and selfishness of these wretches? How can we derive our inspiration but from the noble-minded, kind-hearted Thackeray?

Similarly Meredith has done a national service by mercilessly exposing the selfishness of men like the Egoist; but in satirising them he conceals nothing, "he simply flashes his searchlight into the secret chambers of the heart and mysteries explain themselves." His work is not pleasant but true; and "sacred reality" is the goddess he worshiped. He often said caustic, bitter things, and truth is often unpleasant; but he maintained like Carlyle, that "Truth is great and must prevail." How many men of culture are there amongst us who would imitate Meredith, even at the risk of unpopularity, calumny and obloquy. Perhaps there is only one Madhaviah in Southern India.

Lastly Dickens, the democratic novelist, was a lover of his fellow-man, especially the poor and the despised. In spite of every discouragement and suffering in his early life, he maintained the sunniness of his nature, his cheerful optimism and hope in the progress of mankind. He had extraordinary powers of observation and felt impassioned sympathy with the poor and the wretched; and also a high sense of humour sometimes inclining to broad farce. If he preferred to depict the seamy side of life, it was because no one knew and felt the miseries of that class in the slums of London more than he. His character sketches are true and vital, clearly defined and real; he brought to life such imaginary beings as his Wellers, poor Joes and Wilfers, his Dodgers, Nameys and Sikes, to present to his countrymen the squalor, poverty, wretchedness and misery of these their brethren. These vivid and lurid pictures roused the pity and sympathy of his contemporaries and measures were adopted to ameliorate the distress of these working classes. His satire and humour served the cause of virtue, he brought his sphere of benignity to enlarge their sphere of sympathy and his vigorous humanity infused a spirit of wider social service among his countrymen. Alas! there is hundredfold more misery, poverty, distress, and suffering in the towns in India than in England. Who knows the intensity of the sufferings of the dumb and ignorant millions sunk in want, disease, crime, agony and shame, or who ventures to cry out like Dickens for the mitigation of their deplorable condition? So many abuses exist in our society that even a hundred Dickenses would find it impossible to probe them deep and expose them. The men of culture among us should light the flaming torch of humanity from the burning fire of Dickens and throw light in the dark alleys and hidden corners of misery in our society so as to pave the way for their alleviation and redress.

VII.

Finally the student of culture cannot hope to neglect without perceptible loss, the Essay as a field of Literary study. The special merits of

the Essay are its comparative brevity, limitation of range and depth and attraction of form. It has the advantage of considerable freedom, the informality of conversation and want of organic quality; and also the power of condensation or saying much in little space. The essay is essentially personal, and this subjective quality of self-expression on the part of the essayist constitutes one of its special charms. A true grasp of some of the vital aspects of life has to be obtained from the essay. He has to learn a good deal from the concentrated wisdom of Bacon's essays, from the pleasant medley of reflection and anecdote forming Montaigne's essays, from the didactic and gossiping sallies of Addison, from the quaint fantastical sketches of Lamb, from the highly ethical and patriotic essays of Misani and from the deep philosophic and moral reflections of Emerson's essays. These essayists rub off the angularities of our nature and tend to keep harmony and balance amid the conflicting views of life and its activities constantly presented before our minds.

To crown the efforts of the man of culture in the realisation of his ideal, he should be inspired and softened by another small but vital element of literature. His whole life should be spiritualized. He should quite cheerfully determine "to scorn delights and live laborious days," and devote himself to the selfless service of his fellow-men. Whether he believes in a revealed religion or not, he should be deeply imbued with the true religious spirit, the genuine faith of the lover and servant of humanity. It is only from such immortal fountains of truth as the *Gita* and the *Bible*, the *Imitation of Christ* and the *Imitation of Buddha*, *Meditations of Marcus Aurelius* and speeches of Vivekananda that he can derive the moral stamina, the strength of will, the zeal for Truth, the devotion to humanity which are the characteristic qualities of the man of culture. These authors are "the salt of the earth." Then and then alone will he find the light, the solace and the peace of mind, the "wise passiveness," which is the crown of life.

STUDIES FROM A KINDERGARTEN WINDOW.

I.

NATURE-STUDY AND METHODS OF TEACHING IT IN SCHOOLS.

PROBABLY one of the most attractive features of modern education in our schools for little children is the introduction of nature-study. The evolution of human thought has often been from the indirect to the direct, from the irrelevant to the relevant view of things. When people set about scheming the curricula of educational studies for children in the earlier times, they overlooked the natural and elementary gateways of training up the faculties of children and devoted themselves exclusively to the narrow mental arts of reading, writing and arithmetic. Within recent times, however, the importance of nature-study as a school-subject has been recognised and there is a delightful variation of the school studies in its favour.

II.

Nature is threefold. It pertains to the human, the animal and the inanimate kingdoms. Education equips the child to take its place in the human kingdom but that equipment should guide him as well along a full appreciation of the two lower worlds of nature. To know familiarly the vegetable and the animal worlds out of which the human race evolved as the top of creation, would seem to have a scientific value. To two English poets we may turn for inspiration to guide us to the proper appreciation of nature to be embodied in the training of children in our schools. The first element of this impulse towards Nature is love. When Robert Burns ploughed his farm and a little mouse turning up fled away for its life, he refers to the social union of the creation:

I'm truly sorry man's dominion
Has broken nature's social union,
An' justifies that ill opinion

Which makes thee startle
At me, thy poor earth-born companion
An' fellow mortal.

Nature-study then will have for its object the promoting of a love and sympathy in children's minds for the speechless part of the creation. To know is to love. Nature-study seeks to acquaint children with the details of animal-life and plant-life and thus create an unflinching sympathy in their minds for them.

III.

A proper appreciation of nature is in itself a pleasure. If the aim of education is to know how to live, a responsive eye for nature provides an unflinching source of happiness in life. A man who has not learnt to love the dewy pearls of the morn, the majesty of mountains, or the grandeur of sunset, has not availed of one of the best fruits of life on earth.

The study of nature provides a rare æsthetic training. The shape and beauty of objects, the nice shades of colour,—where else could they be read than in the rich book of Nature herself.

The love of nature is to certain imaginative minds a cult in itself. If we cannot fully realise the sentiment we still feel the significance of the poet's lines:

To me the meanest flower that blows can give
Thoughts that do often lie too deep for tears.

IV.

Again, nature-study helps to broaden the base of education in our schools and in a sense makes it real. In a system of education confined to books, the pupils have the chance of growing up eminently ignorant of the world. They might be able to work up sums or read a book and still fail to identify a common plant on the roadside or know the very elementary facts about a domestic animal. Nature-study gives a practical turn to education and provides the necessary basis for all learning. It lets the children live and feel in the

actual world of which great poets have sung in books of poetry and it provides to some extent the experience which could sharpen their intellect to strive to invent and discover for themselves all kinds of valuable handicraft.

V.

The greatest of all the objects of education is to increase the knowledge of the youth. Nature-study as a subject has attractions and virtues which the mere adding to knowledge is incapable of; still nature-study is quite an excellent means of gathering knowledge. If this aspect is however overdone, the special aim of nature-study will be defeated. But the value of letting the child gain a comprehension of the elementary facts of the objects of nature can never be over-exaggerated for all further scientific studies.

VI.

Coming to the special methods of teaching the subject, we may begin by saying that nature-study must be made as natural as possible. The transition from the old "object-lesson" to the modern "nature-study" will serve to emphasise the need for a natural way of pursuing the studies in the subject. The children have to be allowed freedom of observation and as far as possible they must study nature first-hand. The natural impulses and instincts in children might be availed of to make a systematised record of nature-study work. The various aspects of the usefulness of nature-study have always to be remembered together and the most successful method of teaching is that which will not over-emphasise any one of them. The pleasurable, the æsthetic, the aspect of creating love, the gaining of practical sense, and the aspect of sharpening the powers of observation, and gaining a knowledge of the rudimentary facts of science,—all these have to be harmonised in nature-study.

Nature-study should never be made to be felt as a hard task or as a bore by the children. There cannot be much good purpose served by choosing the least attractive objects of nature for a false appreciative study. The present writer shudders to think, that an earth-worm for instance, could be taken up, to derive all the fascinating benefits of nature-study. The present writer also remembers how one day a boy of the Kindergarten school produced before the Lady Superintendent a miserable looking insect which he handled in a manner that should have caused it great misery, and wanted to be told about it. Shocked at first by this specimen of nature-study, the writer breathed a sigh of relief when the Lady Superintendent ordered the boy at once to set free the insect and asked him to attend to quite different ways of pursuing nature-study.

It is good for children to observe a butterfly or a caterpillar but not to catch it or mutilate it. There are varieties of pretty insects and insects which are not nasty to look at. These the children might be made to observe, and varieties of plants and flowers,—but there need be no feverish hurry to familiarise them with the horrible charms of the insufferable earthworm.

Nature-study should never be a mechanical process of "learning." It demands greater zest than any other subject of school-study. It must not be too sentimental, nor too artistic nor too practical, nor too scientific, though it has to be all these, and success is possible in one word only for the inspired teacher.

P. R. KRISHNASWAMI.

FEMALE EDUCATION IN INDIA.*

I.

THE Hon'ble Sir C. Sankaran Nair has won for himself the gratitude of the whole of India by his recent circular on female education. It is but meet that he, who, all his life long, has been advocating the need of the elevation of womankind in this land, should almost as the first act of his as Minister of Education, start an inquiry on the subject of female education. The problem is vast and many view-points have to be considered. Let us hope that, as the result of deliberations throughout the country, the India Government will be enabled to evolve a scheme, large and liberal enough to suit the immensity of the problem, and courageous and statesman-like enough to bring the solution of the problem within measurable distance of time. Before entering on a discussion of the points raised in this circular, it would perhaps be well that I gave you an idea of the present condition of female education in India. According to the latest returns, (I take these from *The Indian Social Reformer*), i.e. those for 1914-15, there are in British India—

Males.		Females.
Population, 124182692	...	118806255.
Colleges 181	...	14.
Secondary Schools, 6378	...	802.
Primary Schools, 116012	...	15700.
Training Schools, 663	...	91.
Special Schools, 5919	...	1127.

Including 36000 private unrecognised schools for boys and about 2000 for girls we have one institution for males for three villages, and one for females for twenty-seven villages.

As regards expenditure, the Government of India spent in 1914-15 six crores of rupees and a quarter on public instruction for males, while their direct expenditure on the education of girls was less than 80 lakhs. Men's University education cost the State 90 lakhs, Women's a lakh

* A paper read before the Madras Teachers' Guild, by Mr. P. A. Subramania Iyer, Headmaster, Hindu High School, Triplicane.

and a quarter. Men's Secondary schools involved an outlay of 2½ crores; Women's less than 35 lakhs. Boys' primary schools absorbed over 2½ crores; Girls' schools not even half a crore of rupees. The male population, it should be noted, is only 6,000,000 more than the female. The obvious inference from these figures is that the primary need of women's education is more money. Without it, as the *Indian Social Reformer* remarked some time ago, "The cunningest scheme that can be devised by the combined wit and wisdom of the Provincial and Imperial Governments is bound to be largely infructuous."

Next as to the circular itself. It invites discussions and suggestions as regards Elementary, Secondary and Higher education of girls, the courses of studies to be followed in schools and the training of women teachers, and the ideals of women's education. I now propose to say a few words on each of these points.

ELEMENTARY EDUCATION.

It must be remarked at the outset that, so far as elementary education for girls is concerned, our people have no prejudice against it. The time has long since gone by, when education was regarded as taboo to girls. This notion has been replaced by the healthier one, that a knowledge of the three R's may be a great advantage to girls, or at least, will not make them worse than what they would be without such knowledge. 'Indeed,' as the Director of Public Instruction of East Bengal and Assam said some time ago, 'so great has the improvement been in this respect, that the absence of an adequate supply of women teachers and the want of funds are now more potent obstacles to the advancement of education than the social customs and prejudices of the people.'

If, in spite of this, however, elementary education has not spread to the desired extent among the female population of this country, it is because facilities for such education do not exist. I do not mean at all that separate girls' schools have not been started in large numbers. It would be enough that boys' elementary schools themselves were brought into being in sufficient

numbers. For, it should be remembered that, even as it is, more than half the number of girls now receiving elementary education in India, are in boys' schools, and so far, no complaints have been received as to the undesirability of putting boys and girls together in the same school up to their ninth or tenth year. As time goes on, objections in regard to this point are bound to become less and less pronounced, till, it seems to me, the time must come, when, in this country, boys and girls will be freely allowed to receive instruction under the same roof and under the same teachers, at least up to the end of the primary course. By this, I do not mean, however, that separate elementary schools are not necessary. When, in a boys' school, the number of girls under instruction reaches thirty, it would be desirable to start a separate girls' school. Till such time arrives, the girls may be allowed to attend the boys' schools, without serious disadvantages to the girls concerned, but with great advantage to the public purse. For, even now it should be remembered that, out of every four villages in India, three are without a school of any kind. And so, if elementary schools are to be started at all, I have no hesitation in saying that they should be only boys' schools. Till such time as at least 75 per cent. of boys of school-going age are drafted into schools, this will be the only sound policy to be followed. Where, however, as I have already said, the number of girls in a boys' school exceeds thirty, the establishment of a separate girls' school may be contemplated. As regards courses and curricula of studies, I do not think there is much to distinguish between those intended for boys and those intended for girls. If it is possible, I should certainly urge that special provision be made in boys' schools for the teaching of music—Kummi and Kolattam—and needlework to the girls therein. In other respects, I think the curricula for boys and girls may be the same. There is yet one other point which requires consideration in this context. We must all be, and are indeed, very thankful to Mission bodies, for the great, and often perhaps

seemingly thankless, work they have done for the spread of education in this benighted country. But, it has to be said at the same time, that the prejudices against female education that may exist here and there may perhaps be traced to these Mission schools. Apart from their avowedly proselytising tendency, much that is done in these schools appears strange to the Hindu mother. The Kindergarten occupations taught, the songs sung and the tunes to which these songs are set, are all so out of the way, that even educated parents come to have a dislike for them. I would therefore strongly appeal to the Managers of Mission schools to pay some attention to this matter and see to it that the songs, in particular, that they teach to their girls, are set in tunes familiar to the classes from which the majority of the children in their schools are drawn.

Writing of music, I am reminded of the absence of any provision at present for the teaching of this subject in girls' schools under public management. I know, of course, that Kindergarten music and action songs are taught in all these schools, but then, these are taught by teachers with absolutely no pretensions to music, and no enthusiasm for songs at all is created. I am informed that, in some places, parents appealed to the Inspectresses of Girls' Schools, for the appointment of special instructors to teach Indian music to their girls. In all such cases, the reply appears to have been that it was a matter to be left to private effort entirely, and that, if Indian music was taught at all, it should be out of school-hours. I do not know the reasons which actuated this decision, but I can assert from experience that, if good music is taught in a girls' school, it will soon be filled to overflowing. If, therefore, we wish, as we should, that the existing facilities for education should be taken full advantage of, one sure way of effecting this will be to have good Indian music taught in our schools for girls.

SECONDARY EDUCATION.

As regards secondary education for girls, it cannot be said that popular opinion is entirely

in its favour. There are those who consider that the curriculum for girls in these schools is unsatisfactory and that it is necessary to discriminate it from that laid down for boys. Still others there are, who hold that, whereas it is desirable that the quantum of instruction that girls receive in their 4 or 5 years' stay in the elementary schools, is not enough and that they should be given an extended course of tuition, the kind of training given in our secondary English schools for girls is entirely on wrong lines; and that so much of English need not be taught them. They are in fact for an extended course of studies in the vernaculars. And again there is much of difference of opinion as regards the aim that we should keep in view in educating our girls. Are they to be equipped for independent careers in life or is their education intended merely to make them better wives and mothers? The latter opinion is of course the more favoured of the two in the country, but it should not be forgotten that the other view also is gradually gaining ground. There were in 1911-12, 178 English High and Middle schools with 20058 pupils as against 156 English High and Middle schools with 15455 pupils in 1906-07; and 168 Vernacular Middle schools with 15734 pupils as against 262 with 26683 pupils in 1906-07. That is, in the course of 5 years since 1906-07, the number of girls in English Secondary schools increased by 5000 and the number in Vernacular Middle schools fell by nearly 11000. These figures are significant of the trend of public opinion even in the 'unchanging East.' The increasing keenness of the struggle for existence and the breaking up of the joint family system may help the spread of the view that woman also should be taught to regard herself as an independent economic unit in the body politic, and the inevitable sense of freedom, which this notion carries with it, may have an attraction for her. Moreover, the consciousness that you are following the ways of people who are materially richer and higher placed than you are will but tend to strengthen the view, that women in India should receive

the same kind of training as her sisters in European countries. It may be that, after all, the change may not be good for the women of India; but the change, however, will come; and, if there is to be any revulsion of feeling in the matter, it would be only after the change has come about, not before. That seems to be the ordinary and inevitable course of evolution in such matters.

Whatever that may be, those who are in charge of the work of devising a machinery for the spread of enlightenment in our homes have to take note of these two points of view and provide accordingly. Paradoxical as it may seem, better facilities exist in the country for giving education to girls on the lines laid down for boys in English schools than for imparting to them in the vernaculars a higher course in what is obviously necessary to make them better housewives in conformity with the traditions and ideals of the Indian home. To carry out the latter view, you require a class of women teachers who are yet non-existent, and a set of text-books in the vernaculars which have yet to be written. The former, however, is more easy of attainment. If you are so minded, you may send your girls freely to boys' schools. If you want special schools, however, you have only to start them and staff them with women teachers from abroad.

This then is the situation. The majority of the people of the land want higher education for their girls in the vernaculars and they want the curricula to be such as not to import any violent change or serious departure in the conception that the ordinary Hindu wife has of her duties and mission in life. They want, of course, that instruction on these lines should be imparted by lady teachers, who have necessarily to be drawn from Indian communities, but who are yet not sufficiently large in numbers to carry on the work on the required scale. Abundant facilities, however, exist for giving education to girls on the lines laid down for boys or for girls in foreign countries, but those that care for it are either the leisured class or those that want independent

careers for themselves. Thus with a large demand for one kind of education, but with no means of meeting that demand, on one side, and abundant facilities for imparting instruction on different lines, but with no large demand for such instruction, on the other side, secondary education in India has not made much progress. This is evidenced by the figures of girls under instruction in the secondary stage, which I give below:

Year.	No. of H. Schools.	No. of pupils.	No. of Middle English Schools.	No. of pupils.	No. of Middle Vernacular Schools.	No. of pupils.
1906-07	43	4945	113	10,510	262	26,683
1911-12	66	9045	113	11,013	168	15,734

The number in English schools has gone up by 4,100, the number in Vernacular schools has gone down by 11,000. The increase in the number of English pupils is, of course, easily accounted for, though, of course, it does not at all reflect the general sense of the community in favour of secondary education in English. For the fall in the numbers of pupils in Vernacular secondary schools, we have to find a reason, partly in the general dissatisfaction with the curricula followed in these schools and partly in the fact, that a number of these girls have been drafted into English schools. Any way, secondary education has not progressed at a rate, commensurate with the advance in elementary education.

The demand, however, for secondary education in English is likely to increase, though perhaps slowly, and it is a question whether Government should encourage it by starting more English secondary schools. Then there is the next question as to what Government should do to meet the larger demand for education on lines more adapted to Indian needs and requirements,

As I have already said, if Government want to take the line of least resistance in the matter for the time being, the obvious plan would be to start English secondary schools, and leave the other question to solve itself in course of time. But a reaction, against English education, imparted as in secondary schools in England, is bound to come, as it did in the case of Japan, and a set-back, temporary perhaps but regrettable, would be the result and a fresh readjustment of the courses of studies will become necessary. Says Mr. Sharp the following in his book on 'The Educational System of Japan': 'The Empress, herself brought up on old-fashioned lines, has always shown an interest in the improved education of her sex; and her example in encouraging the Peeress' school did much to develop the fashion of female education, which reached its height about 1890. Soon after that a reaction set in, the general character of which is expressed in an advertisement of a girls' school, promising that they should receive Japanese food and live in the Japanese way, no religious instruction or books being allowed them, except at the formal request of their parents. It was not only that the prominent association of foreigners with girls' schools caused the latter to share the general disfavour with which the former were then regarded, but the reformers had apparently proceeded too fast. In some cases, at least, Japanese girls had been brought up on American lines, and were discontented when they returned home to the 'three obediences,' whilst their relatives were equally dissatisfied. For the men had not had time to adjust themselves to the new conditions; most of them looked upon foreign women as clumsy and ill-mannered, if not positively immodest; and the conservatives were shocked to find that their own girls were acquiring similar characteristics. The Mission schools engaged teachers of Japanese etiquette for their pupils.'

If this was the case in Japan where it is generally agreed that the status of woman has always been superior to that that she has held in any other Asiatic country, where 'in earliest times

the two sexes seem to have been on almost equal terms; women sat on the throne, they went out hunting, they engaged in war, they wrote books, and this even after their position had begun to be sapped by the introduction of Indian and Chinese ideas on the subject—if this was the case in Japan, would not the reaction take a worse form in our country? Would it not therefore be the part of wisdom to take a lesson from Japan and draw up our secondary school courses somewhat on the lines adopted in Japanese High Schools? By all means, let us teach English in our schools even as in Japan, but let the courses in the other subjects be in the Vernaculars and the subjects themselves be such as to fit them for their duties of life as members of the family and not as individual units by themselves. For, we should remember that, even in Japan, organized as it is, like Europe and America, with its vast industrial concerns and factories, urban life and congestion, rise in the standard of living and consequent increase of struggle for existence. 'Female education,' as Baron Kikuchi says, 'is based on the assumption that women marry and that its object is to fit girls to become good wives and mothers. The unit of society is the family, not the individual.' I should therefore strongly urge on all concerned in the shaping of female education, to carefully ponder over these facts and not be led away by considerations of fashion or the fascination of ideals, too far removed from the actual.

Let us then be practical and wise and have in our secondary schools the same subjects (with suitable modifications of course) as in Japanese Girls' High Schools taught. The High School course in Japan extends over 5 years and the following table shows the various subjects taught and the number of hours per week devoted to each:—

Subjects.	No. of hours per week devoted to the teaching of each subject in—				
	1st year.	2nd year.	3rd year.	4th year.	5th year.
1. Morals ...	2	2	2	2	2
2. The Vernacular Language ...	0	0	0	0	0
3. Foreign Language ...	3	3	3	3	3
4. History and Geography ...	3	3	3	3	3
5. Mathematics ...	2	2	2	2	2
6. Science ...	2	2	2	1	1
7. Drawing ...	1	1	1	1	1
8. Household matters ...	—	—	2	2	4
9. Sewing (including lessons in the use of the sewing machine) ...	4	4	4	4	4
10. Music ...	2	2	2	2	2
11. Gymnastics ...	3	3	3	3	3

As will be seen from the above, household matters are taught in the last three years of the Secondary school course. The following is the syllabus prescribed:—

Syllabus of teaching in Household matters—Third year class.

*Introduction:—*Woman's work in the household, importance of forming a good Kafi or customs and usages of the house.

Clothing, food, habitation—

*Clothing—*choice of materials, making preservation, washing.

*Food—*constituents, nature, ordinary food, (rice, wheat, barley, milk, curd, vegetables, etc.), food articles of special taste, drinking water, means of getting good water, infection by water, cooking with practical lessons, storing.

*Habitation—*choice, site, building, direction of the frontage, light, warmth, ventilation, position of rooms, cleansing, sweeping, care-taking of furniture and utensils.

Fourth and fifth years—care of the old and the children.

*Care of the old—*attention to be paid with respect to clothing, food and habitation, assistance in sitting and standing—mental comfort.

*Care of children—*lactation, teeth, food, clothing, habitation, bathing, exercise, sleep, sickness,

speech and action or demeanour—conversation, plays and toys—school attendance—nursing and prevention of infectious diseases. Attention to be paid with respect to clothing, food and habitation, nursing, medicine, dangerous cases, measures to be taken in emergencies, infectious diseases and their prevention, mode of cleansing, disinfection.

*Management and Economy:—*Things to be borne in mind by the mistress of a house—diligence, economy, order, preparedness, minute attention, cleanliness, servants, their choice and how to treat them, distribution of work, wages, property, estimate of income and expenditure, necessary expenses and waste, savings, insurance, household book-keeping, items of income and expenditure, method of book-keeping, arrangement of books.

The following are the directions with regard to the teaching of the subject:—

1. In teaching household matters, mere theories must be avoided, and teaching well adapted to practical purposes.

2. About ten lessons are to be given in practical cookery in the third year, but they may, if necessary, be given in the 4th year also.

3. Household book-keeping should be taught with examples as nearly real as possible.

In addition to the above, 'a good deal of attention is paid to Japanese etiquette in order to counteract the roughening effects of foreign systems of education.' Under this are the following items included:—

Things to be borne in mind in relation to, and practical lessons in sitting and standing; advancing and retiring; interview, offering and accepting of things.

Things to be borne in mind in relation to sleeping and eating; dress, visit, reception, communication (correspondence, etc.); presents, entertainments; public meetings; occasions of joy and sorrow; congratulations and condolence, mourning, etc.

It is on lines indicated above that Prof. Karve has developed his scheme of his Women's University for India and time will show that he is a wise prophet.

HIGHER EDUCATION.

It seems to me that at present there is not much need of separate women's colleges. There is considerable truth in the observation of Prof. Paranjpye on this subject. So long as women are admitted to the examinations of the Universities and so long as they are freely admitted into men's colleges preparing for those examinations, the establishment of separate women's colleges may mean much expenditure of money. When, however, Secondary schools, on the lines sketched above, come to be established in large numbers and when students from those schools have to be admitted to higher courses of studies, there may arise the need for separate colleges, and also perhaps for a separate University. Ordinarily, women wishing to lead independent lives may take to the professions of teaching and medicine and to them also a course in secondary schools, herein described, will be enough.

SUPPLY OF WOMEN TEACHERS.

The Government of India have rightly recognised that female education cannot be expected to make good progress, unless we have a large number of women teachers. They also recognise that the present number of them is quite inadequate for the end in view. The problem then is how to secure more women teachers. It should be remembered that even of the small number of women teachers that we have now in India, teachers drawn from the Brahmin and Non-Brahmin high caste Hindu classes form a very very small proportion. The majority of the teachers are Europeans and Indian Christians. In 1911-'12 there were 1613 female students in all the training schools of India, of whom, as many as 1021 were Europeans, Anglo-Indians and Native Christians. Only 173 were Brahmins and only 280 Non-Brahmin caste Hindus. Unless the numbers of

teachers drawn from these two classes of the community are considerably increased, we cannot expect a satisfactory increase in the numbers attending schools of the higher grades. The immediate task therefore before the Government is to increase the number of women teachers belonging to Brahmin and Non-Brahmin caste Hindu classes. The most obvious plan would be to increase the amount of stipends by 75 to 100 per cent.; start training or 'sessional' schools in suitable localities and fit the students for the work of teaching. I may in this connection draw your attention to a note that the Hon. Pandit Moti Lal Nehru has added to the report of the Sub-Committee on Female Education in the United Provinces. Says he in the note: "If facilities were afforded to Hindu widows to visit sacred places of pilgrimage and stay there for a course of training in teaching, a good number of them would be induced to take up the profession of teaching. The proposal is to establish 'Widows' Homes' in places like Haridwar, Benares and Allahabad, and offer suitable stipends to such widows as are prepared to undertake that they would adopt the profession of teaching after going through the necessary course of instruction. The experiment is in my opinion worth a trial." Till the services of a sufficient number of these are insured, Local Governments may be advised not to start secondary schools.

As regards elementary schools, as I have already said, people have no objection whatever to have their girls taught in boys' schools up to their ninth year, and it only remains for the Government to bring into existence schools for boys where such are wanted. Such additional or exceptional inducements for getting girls into schools now offered by local Governments in the shape of larger capitation grants and allowances may be continued.

IDEALS OF WOMEN'S EDUCATION.

From what I have said above, it will be clear

that my ideal of Indian women's education is that it should be such as to make them enlightened wives and mothers and that all instruction should be imparted to them only in the Vernaculars. I know, however, that there is a section of the public in this country that favours the view that there should be no difference whatever between the curriculum for boys and that for girls. It seems to me that this comes of a rather incorrect notion that because we prescribe a different course of study for girls, that course should be considered necessarily inferior to that prescribed for boys. We in boys' secondary schools and colleges know that boys of different aptitudes take up different optional subjects for study, and I think that the adoption of a separate curriculum for girls is in no way different from this. Besides in a country like India where marriage is mostly compulsory, not optional, and where only one per cent. of the women above thirty years of age remain unmarried, one would not be wrong in saying that 'enlightened mothering' is the primary need of womankind and that the scheme of education intended for them should be designed with a view to secure that end. And, I may add, it is in perfect consonance with the view held by the Hindu ladies of Bombay who in their memorial to the Viceroy drawn up at a public meeting held on the 31st December 1915, say

(i) The education of girls should be practical with reference to the position which they fill in social life.

(ii) It should not seek to imitate the education suitable for boys, nor should it be dominated by examinations.

I may also state that recently the Parsis of Bombay considering the injurious effects which the present system of education has on the physique of their girls resolved that hereafter their girls' schools should cease to prepare candidates for the Bombay Matriculation examination.

If should be remembered, however, that there never can, nor ever will, be any finality in these matters. Till nearly a century ago women in England occupied more or less a position corresponding to that of our own women in this country. We are all familiar with Mann's notion that woman can at no stage of her life be free and the common saying that ignorance is the ornament of a woman. And it is curious to find a parallel in Lord Kames of a past century discoursing in England on "how becoming is obedience in that sex for ever subjected to the authority of a single person or to the opinion of all." And Dr. Gregory says, "Nothing is more fatal to a woman than the attempt to influence man by reasoning or by anything but caresses." Women in England have now come a very long way indeed from this, and if they have done so, it is due as much to economic causes as to the intellectual realization of the fact that the true end of education is to elevate the soul to the highest that it is capable of, the woman-soul as well as the man-soul. The excess of the number of women over men and the increasing number of bachelors in all ranks of life consequent on the ever increasing cost of life and managing households have in many countries of the West thrown a large class of women entirely on their own resources and forced them to enter the arena of life and compete with men on an equal footing. But man-made laws yet throw obstacles in their way and subject them to various disabilities of various kinds. All these, however, are bound to banish in course of time, till perhaps society organizes itself not on differences of sex but on distinctions of physical and mental aptitudes merely.

It may be that similar conditions of life come to be established in India as well and a thorough revolution in social relationships takes place. But till such time comes or till such change is forced upon us, the duty of the community is certainly not to precipitate it, but to move

forward slowly and cautiously, remembering that all social revolutions, whatever their nature, are inevitably marked by the 'loosening of social ties, the upheaval of customary ways and prolonged and severe domestic embarrassment.' Tennyson's ideal of 'Freedom slowly broadening down from precedent to precedent' is the right one to hold up not merely in politics but in social matters as well.

FEMALE EDUCATION IN MADRAS.

II.

Judged by numbers in schools, Madras stands ahead of all the other provinces in respect of female education. Judged, however, by the average level of culture attained by women in general and by the numbers in secondary schools and colleges, Madras yields place to Bombay. And Lord Pentland did signal service to the cause of women's education in this Presidency, when he started the Women's College in Madras, and the two English Secondary schools, one in Triplicane and the other in Vizagapatam. The establishment of different hostels for the different sections of the community, to which the girls belonged, was another step in the right direction and even the most optimistic amongst us would, when asked, confess that the results have very largely surpassed expectations. It is to be sincerely hoped, however, that, remembering the discussion that took place, regarding the Triplicane Secondary School at the local Legislative Council in March last, the Department will effect the needed reforms and make the institution more popular. 'All instruction should be in the Vernacular and on lines calculated to inculcate a reverence for what Sir Krishna Gupta has happily described as the true woman's ideal of well-directed service and sacrifice.'

I remarked at the outset, that the number of girls in schools in Madras was the largest in all

India; but the sense of self-satisfaction we may perhaps feel on that account will be tempered very considerably, when we reflect, that the credit of it all goes to the Indian Christian community amongst us. This is particularly true of girls in secondary schools, for, out of 6,282 girls in the secondary stage of instruction in 1914-15, as many as 3,806 were Indian Christians. And of the 646 women, that underwent training in the same year, 496 belonged to the Indian Christian community. The general spirit of conservatism that is the special characteristic of the people of South India, and the want of warm sympathy between the Hindu pupil and the Christian teacher, largely account for the paucity in numbers of Hindu girls in secondary schools. Any increase of numbers in these schools will be possible only when more Hindu teachers come to be employed therein. In this connection, it may not be inappropriate to point out that Dr. Bourne has drawn attention to this aspect of the matter in his report for 1911-12. Says he: "These schools (schools under public management) meet a more general public need than Mission schools, because parents fear the influence of the Mission school atmosphere more for their girls than for their boys, so that, girls, particularly caste girls, are not sent to Mission schools with the same freedom that boys are and consequently some diversion of funds from aid to girls' schools to the maintenance of schools by Government and by Local Boards is justifiable on public grounds." The need for Hindu teachers, therefore is paramount, and special measures should be adopted to enlist them as teachers. In order to this end additional training schools should be started in districts where the percentage of school-going population is the largest, and enhanced rates of stipend offered to Brahmin and other caste Hindu candidates for training. The districts of Malabar, Tinnevely and Trichinopoly are among the most advanced in the matter of secondary education and it is rather surprising to find that in 1914-15, only 12, 50 and 60 teachers respectively were trained

in these districts. A good secondary training school in each of these districts, with denominational hostels attached to each, will attract a large number of candidates for training.

ELEMENTARY SCHOOLS.

As regards the spread of elementary education among girls, two points have to be considered:—

1. How are we to increase the numbers in the existing schools?

2. If new schools are to be started, where shall they be?

1. The first step, to be taken in this direction is to abolish all fees in all girls' schools. This will involve the reimbursement of managers of aided schools, to the extent that they lose by foregoing fees, and increase of the salaries of teachers in third standard Board Schools, who are now permitted under the rules to levy fees and appropriate them. In 1914-15, there were 65,397 girls in Aided schools and they paid Rs. 66,216 as fees for the whole year, i.e. each girl paid a trifle over one rupee as annual fee. Now, if education is to be made free, Government will have to increase the capitation grant per pupil from Rs. 1, which is the present rate, to Rs. 2. As regards teachers in Board Schools, their capitation allowances will have to be increased, so as to make good their loss of fee income. If the above two suggestions are carried out, the immediate increase of expenditure from Provincial Funds will be Rs. 1,24,000. It is getting to be increasingly felt that, in the matter of salaries to teachers in Board Schools and grants to those in Aided Schools, female teachers should be placed on a different footing from male teachers. To stimulate the increase of the number of female teachers, it is suggested that they be paid 50 per cent. more than male teachers of the corresponding qualifications and I think that this also should be done.

2. Where shall we start new schools? As I have already said, if we start new schools at all, they should be intended both for boys and girls. And, as a first step, I recommend the establishment of a school in every village with a popula-

tion varying from 1,000 to 2,000 and above, which is not yet provided with one.

According to the Director's report of 1914-15, there are yet 2,520 such villages. In their scheme of expansion of elementary education, which the Madras Government submitted to the Government of India three years ago, they took Rs. 375 as the average annual cost of running a school. If, as I have recommended above, all fees for girls should be abolished and female teachers paid 50% more than male teachers of corresponding qualifications, the recurring charge per school will increase to about Rs. 450. Calculated at this rate, the extra expenditure involved will be a trifle more than 11 lakhs a year.

All this means money, and it is painful to reflect that the India Government were not able to grant all the amount that the Madras Government asked for the expansion of mass education in the Province. In their three years' programme submitted three years ago the Madras Government provided for the establishment of 4,500 new Board elementary schools, the conversion of 4,500 venture schools into Board schools, the training of 3,000 teachers and the raising of 900 schools from the lower to the higher elementary grade. But not even a third of the work has yet been done, because the India Government did not sanction the required amount, though it is so well known that in the matter of the adjustment of the financial relations between the Imperial and Provincial Governments, Madras has not been handsomely treated. Sir William Meyer himself in a manner acknowledged the justice of this plea in one of his Budget speeches.

Both Lord Pentland and the Hon'ble Mr. Stone are earnest and sincere well-wishers of education, and I feel therefore justified in hoping that they will press the claims of Madras on the Imperial Government for larger grants for education, and that before they lay down their reins of office they will have earned the gratitude of this province by placing education on a firm and progressive basis.

NEED FOR A CHANGE IN THE 'ANGLE OF VISION' OF OUR EDUCATIONAL SYSTEMS.

I.

"The common problem, yours, mine, every one's.
It—not to fancy what were fair in life
Provided it could be—but, finding first
What may be, then find how to make it fair
Up to our means: a very different thing!"—BROWNING.

Before going into the main topic of the present paper, perhaps it will not be quite out of place to add a few words about what was styled 'the naturalist school of thinkers' in my last paper* entitled, 'Introduction to the Formation of Character.' Probably the most well-known leader or at least the most well-known exponent of that school is Rousseau. His principles are embedded in the pages of his ever-popular *Emilie*.

In a passage of first-rate importance, he exhorts the tutor of his *Emilie* to "keep the child in dependence on things only; you will follow the course of nature in the course of his education. Never oppose to his indiscrete desires any but physical obstacles or the punishments which are born of the actions themselves...and without forbidding him to do ill it is enough to hinder him. That he can and that he cannot should alone stand for law." "Leave him to himself in freedom; note his actions without saying anything to him about them; see what he will do and how he will do it."† Of this ideal of boyhood, we are told, at the age of twelve, "Speak to him of duty, of obedience, he makes nothing of what you say; command him in anything, he will take no notice." At the age of fifteen, "He considers himself without regard to others, and finds it well that others do not think of him. He demands nothing from anybody and believes that he owes nothing

* *Educational Review*, August 1916.

† *Emilie*: Chapter II.

In the days past, when the insulated village-system was in prevalence, when the population of even the biggest villages could have been counted by a few thousands, when there was real caste-distinction based on the principle of division of labour, when each village or, at worst, each group of villages was self-sufficient in all ways, when each family was dedicated, from generation to generation, to the same profession or work, when the family itself formed the essential educative institution for the children, when the parents themselves were the essential teachers, there was not much difficulty. In those days, the family was the essential educative agent. The father was a revered personality. The mother was an equally revered and beloved personality. There was not much gap between the culture of the father and that of the mother. And, the combined and constant influence of the parents was sufficient to shape the character and mould the personality of the child.

Further, there was no difficulty in giving the proper orientation. For, in the first place, the conditions under which the children had to be brought up were extremely simple and definitely known. And, secondly, this simple and definitely known environment was practically-constant. It was almost a statical stage of our society in which our forefathers lived and continued to live for an appreciably long time. Indeed, the sameness of circumstances persisted so long that they almost dropped out of their outlook any possibility of change and in the long run, even the instinctive adaptability to change.

But, a change must come and did come, asking imperatively for a change in our mode of life and in our systems of education. The

change is now going on without any near prospect of a stage of equilibrium. Hence, the need for a growing system of education in place of the time-honoured fast-rusting system of yore. The contact—the memorable contact—with the West, the far-reaching influence of the European civilisation, and the result of over half a century of British rule, have led to an unmistakable metamorphosis of the social, physical, political, &c.,.....environment, in which we have to pull on and, along with us, our young ones have to be dragged on and their needs, administered to in the light of this great change.

The ancient conditions are rapidly flying away. The villages are being deserted. The towns are growing into cities, whose population has to be counted not by thousands alone, but by hundreds of thousands, caste has become a meaningless name. It has lost its purpose and is doing the mischief of all such spiritless institutions. The old simplicity of life and society has vanished. The self-sufficiency of extremely limited sheets of country has disappeared and the new international competition into the currents of which we have to drop ourselves necessitates the entire absorption of one to one's vocation, with hardly any time to devote to the education of one's children. Most of the mothers are simply becoming incompetent to attend to the children's education, on account of their ignorance.

In the near past, however, say in the past half-century, when we were in a kind of transition stage, when the old conditions were just being broken, when the exodus of vocationless parents to the neighbouring towns was just becoming the fashion, when this exodus was made mainly for the sake of

the education of the children, the conditions were much different from what they are now and what they are likely to be in the future. In that state of things, in most of the mofussil places, the family very efficiently supplemented the work of the school. The family was, as it were, set up in a town for the upkeep of the children alone; that was the main, and in many cases, the only purpose of the parents; and, the personality of the parents had still an awe-inspiring influence and, as such, the schools of those days could very well have depended on them and limited their own work to the imparting of useful bits of information, leaving much of the task of giving the necessary *orientation* and *momentum* to the engagementless parents.

Now, even such an arrangement cannot and will not hold. Parents could no more afford to be idle and bestow so much attention on their children. They cannot undertake the sole responsibility of giving the *orientation* and *momentum* but will have, inevitably, to shove a major portion of it on the schools. At best, they can only bring up the children up to the school-going age and thence forward leave everything else to schools. The mothers have lagged still farther behind than before. In fact, the majority of them have ceased to be looked upon as an inspiring personality. In relation to them at least, 'the spirit of irreverence' takes complete possession of most of our children, after they reach the school-going age. Thence forward, the mothers are neglected coldly and very often with an impertinence, not only tolerated but also momentarily enjoyed by many an educated father. Under such circumstances, it would be hardly wise to regard the family as a

reliable agent to give the proper *orientation* and *momentum* to the children's personality.

And our schools are not adapted to meet this situation. So far indeed are they from it, that, in the words of the Governor-General in Council (Cf. *Indian Educational Policy*, being a Resolution of the Governor-General in Council dated 11th March 1904: para 25, page 24). "The remark has often been made that the extension in India of an education modelled upon European principles... has stimulated tendencies unfavourable to discipline and has encouraged the growth of a spirit of irreverence in the rising generation." How could such a system of education give the proper *orientation* and *momentum* to the children's motion through life?

I reserve, for some future paper, a consideration of the lines of reform for adjusting our school-systems to the spiritual needs of our present day boy-world. And, for the purposes of the present paper, it may be summed up that, whereas there is a real need for the active education of children, whereas, in the first of the periods above referred to, our families had full time and means to be the sole agent of education and whereas, in the near past, the family very efficiently supplemented the work done by the schools, in the present period, our families have ceased to be reliable agents of education, the fathers have no time and the mothers are not competent to take any effective part in the actual education of their children and hence it will not be sufficient if our schools continue to be mere information-giving centres. And, lastly, there is every reason to fear that, in the near future, if the condition of female education continues to be what it is at pre-

to anybody; he is alone in human society; he relies entirely upon himself."

This system of Rousseau is distinctly anti-social. As a matter of fact, the starting principle of Rousseau in that, "The only man who accomplishes his will is he who, in order to do so, is not obliged to another man's arms in addition to his own." The whole of experience and the whole of history simply disprove the truth of this principle. Every man who conceives a grand idea is led by instinct to seek the association of others in realising it. Modern man is able to do far less for himself by his own unaided efforts, even to maintain his life than his distant forefathers. Yet, there is no denying that he lives in a far higher plane. He can accomplish purposes, which a savage—self-sufficient savage—cannot even conceive of.

But, perhaps Rousseau was not entirely unconscious of this primary defect in his system; at any rate, he does not seem to have been, in the end, as hopeful of his *Emilie*, as one would expect him to be. For, who is prepared to find *Emilie*, in full manhood, complacently undergoing slavery in Algeria? The fact is, *Emilie* is simply unable to guide his own life after all. Prof. Welton of Leeds University gives a real instance of a similar case. According to him, one Richard Lovell Bagworth brought up the eldest—fortunately the eldest only—of his seventeen children on the lines suggested by Rousseau. "The later history of this youth showed," says Welton, "that he was wanting in application and steadiness of purpose to the end of his days." *Emilie*, *et Sophie* is studied along with

Emilie, one will not be far wrong in coming to the conclusion that Rousseau never intended that his queer system should be bodily adopted in actual practice.

In fact, I take it, that his *Emilie* was a caricature, though specious and captivating, drawn as a result of the reaction provoked by the extremely hampering and dry conventionalities of the 18th century Educational systems. As a protest, demanding revolution, it was almost inevitable that the reaction against overweighing the balance on the one side should have over-weighted it on the other side. And so, Rousseau has an excuse.

But, his influence over the present-day educationists is very tremendous. He is at the root of that vague and unthinking acceptance of that fundamental principle—that interference is, in its nature, evil to the child's freedom and is to be avoided at all costs—which has taken such a strong hold of parents and teachers in the recent years. So we have the fashionable doctrines of soft-pedagogy that everything is to be made agreeable to the child, that he is never to be called upon to do anything distasteful. Like *Emilie* he should see no difference between work and play and so is never to be made to labour to an end. When we appreciate the extent to which the poison of this pernicious doctrine of the free license of the child's impulse has permeated the present-day educational theories, we cannot feel that M. Jules Lemaître is too harsh when he says of its originator, "Never, I believe, thanks to the credulity and stupidity of mankind, has a writer done more harm to man than this writer who, it seems, did not exactly know what he was saying."

* Jean Jacques Rousseau.

Count Tolstoy's system is another version and a slight improvement on Rousseau's system. Here, the child is not left 'alone in human society.' Tolstoy would admit a number of children into his seminary; but, still, he would not tolerate any interference on the part of the teacher. But, each of his creatures would strive to carry out his will and the strongest would prevail. Those unfitted to survive the struggle would be annihilated. There would thus be 'natural selection' and 'survival of the fittest.' This is the postulate on which Tolstoy would base his educational system, in which each child should receive what and how he likes. In organised community of life, however, this arrangement has never prevailed. It is a violation of human nature. There is much in it that is analogous to the much-detested part of the philosophy of Nietzsche.

But a proper view of the problem would be to regard the immaturity and weakness—spiritual and physical—of the child, as sufficient justification for active education. We frequently speak of the 'rights of the child' as an immature being its chief right is to be trained into the stature of the perfect man. Absence of control means the tyranny of impulse and passion and no greater cruelty can be inflicted on a child than to leave him to grow up in slavery to his own nature.

II.

The child has a right, then, to real training and guidance. His elders owe it to him. To use the phraseology of the previous paper, the proper orientation and momentum must be given to his motion through life so that, under the combined influence of the dynamical force of instinct and the attractive force of environment, it might tend to be beautiful

as well useful. I said that this is a function of Practical Pedagogics. Now, I repeat that it is an essential function of all educational systems. Pedagogics, whatever else it may or may not do, cannot and should not overlook this function. It must make on the other hand a fair attempt to have this purpose fulfilled, since this is the bedrock on which everything else has to be planted. To this end Prof. James testifies in unequivocal terms: "Education, in short, cannot be better described than by calling it the organisation of acquired habits of conduct and tendency." So also, we have Welton pronouncing, "Education, as here conceived, is the sum of conscious efforts to bring up a child in the way he should go." To bring up a child in the way he should go—that should be the watchword of every practical teacher. It might almost seem to be a truism and yet it cannot be too frequently repeated. It is the conscious recognition of the far-reaching potentiality of this function, that should cheer up, what is commonly believed to be the monotonous work of a teacher. This is the underlying principle that necessitates a constant change in and adaptation of our educational systems, so as to fit in with the inevitable circumstantial changes. It needs repeated mention and constant attention both because of its supreme intrinsic importance and because of the extremely inadequate manner in which our schools of to-day are adapted to the changing conditions and demands of modern life.

Most of our schools are by nature out of their setting, from this point of view. The present day needs of our boy-world are far ahead of what the school-systems anticipated and can administer to.

sent, our families will cease to be competent to the bringing up of our children even up to the school-age and it would be no wonder if a cry is raised for the universal establishment of the Montessori system of educational nursing homes for our infants.

S. R. RANGANATHAN.

In Active Preparation.

COLLEGE ALGEBRA

A Text-book for the Intermediate and B.A. Classes

BY

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Professor of Mathematics, College of Engineering, Madras.

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NEED OF SCHOOL MAGAZINES.

THERE is a general complaint that the school-boys in India do not possess any wide, accurate and definite information on many points. Majority of them do not know anything about the latest discoveries and inventions made in various departments of science. Many have but an imperfect understanding of their own real history not to speak of the history of other nations. To some, again, the lives of the greatest men of the world are but a sealed book. Some there are who possess absolutely no knowledge of even their own national heroes and national institutions. Some are blissfully ignorant of the geography of their own province and country and much more so of that of other countries. Most of them are not at all in touch with the important current questions affecting their own country or empire, for instance, the present European War. In fact, this ignorance and indefiniteness is observable in an Indian student's knowledge of almost all the subjects of human interest.

Can this defect be remedied? If yes, by what means? The answer to the main question is, of course, in the affirmative, because there is no defect which cannot be removed if necessary steps are taken for the purpose. What are the steps, then, to get rid of the evil stated in the preceding paragraph? I will attempt to discuss here only one of the several steps that may be suggested. It is the starting of competently edited and efficiently managed school magazines.

Some persons would, perhaps, object to this suggestion saying that the need that the school magazine is intended to fulfil is being already fulfilled by the current text-books. True, the text-books do supply definite and accurate information on many points worth knowing by a student, yet they do not go very far. They do not touch all the subjects with which an up-to-date student ought to be conversant. Besides, it should be remembered that they are text-books and text-books to be read for the examination,

and they are taken by the generality of students merely as such. Their contents are read and 'mastered' only to be 'vomitted' in the examination hall. In many cases, their effect does not persist long after the examination because the purpose for which they were studied has been served. Such is not the case with the reading of magazines, however. These we read not with the hurry and incompleteness born of the anxiety about passing of an examination, but with pleasure and calmness. Hence the ideas acquired from the reading of magazines and magazines especially edited for us, 'stick' into our brains and are not easily forgotten. Moreover school magazines can touch any and every subject of interest and advantage to the student community, a privilege denied to text-books.

These magazines would not only supply students with up-to-date and accurate information, but would be useful in many other ways also. They can be of considerable help to them in their school work. They afford an opportunity to students to improve their manner of writing by inducing them to write articles and also by placing before them pieces written by masters of the language.

The vernacular schools should have vernacular magazines and the Anglo-Vernacular schools magazines in English. They should be conducted in such a way as to suit the tastes and capacities of those for whom they are essentially intended.

The following may be some of the features of these school magazines:—

1. The get-up of the magazines should be nice and attractive.
2. They should be illustrated with art and other pictures. Pictures by Indian artists should find a place in them.
3. They should contain articles on various scientific topics, including the latest inventions and discoveries, written in an easy, attractive, and non-technical language.
4. Articles on travels in various countries describing their famous places, noteworthy institutions, manners and customs, etc.
5. Biographical sketches of eminent his-

torical personages of all countries, especially of India.

6. Descriptive and interpretational articles on important events in the history of India, England and other countries.

7. Students' section to which students should be encouraged to contribute.

8. A page or two for answering queries of inquisitive students.

9. Practical hints on character building.

10. Practical hints on physical development.

11. Interesting and instructive stories.

12. Solutions of difficult problems connected with the school work.

The above list is by no means exhaustive but only points out the lines on which school magazines may be conducted with advantage. This note is written with a view to draw the attention of some of the more alert of our educationists to the necessity of utilizing this important educative agency. They need hardly be reminded that such magazines have existed in Europe and America for long and have done an immeasurable good to the student community. Of course, there are a few school magazines in India too but they are not very popular and their number is almost negligible considering the bulk of the student population of the country. The one great reason why they are not so popular is the want of efficient management. The magazines should be very widely advertised, especially in schools. The co-operation of the heads of schools should be secured. The subscription should be as low as possible. As far as possible strict regularity should be observed in the issue of magazines. The system of giving prizes in books and calendars, etc. to subscribers may be followed with advantage. Competitive essays may be invited and the best writers rewarded. Student agents may be appointed in each school to secure subscribers. These and such other methods are sure to bring a large number of subscribers and readers. If some of the existing magazines take up any or all of the above suggestions, I am sure, they shall, in a short time, make themselves instruments of incalculable good to the student world.

JESSARAM C. PANJABI.

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Nov. 1916.] THE RECENT INTERMEDIATE EXAMINATION FAILURES. 751

THE RECENT INTERMEDIATE EXAMINATION FAILURES.

A Review of the Special Report of the Syndicate of the Madras University.

I.

The Special Report of the Syndicate is largely taken up with the relation of the so-called "Admission Scandal" to the disastrous results in the last Intermediate Examination.

In the report of the Syndicate it is stated (page 3, last paragraph) that "It is the contention of the Syndicate that it is just here (i.e. reckless increase in admissions) that the really determining factor is to be found for the long failure list."

Again on page 4, foot-note, it is stated that "It may be noticed that the Colleges which appear to have admitted most recklessly have, generally speaking, fared much the worst in the last examination."

Then follows a list of the 10 Colleges which are supposed to prove these statements.

Let us examine separately each of these statements made by the Syndicate.

My discussion is based for the most part on the following comparisons:—

(a) The number of admissions to the various Colleges in the year 1910, the last year of admissions under the old Matriculation standard, is compared with the number of admissions to the same Colleges in the year 1914-15, the last year in which Principals of Colleges were given discretion in the matter of admissions.

(b) The result obtained by the Colleges in the Intermediate Examination of 1912, the year in which the last class admitted under the old Matriculation standard was examined is compared with the result obtained by the same Colleges in the year 1916, the year in which the last class admitted under the rule giving Principals discretion was examined, and the year in which the most disastrous results occurred.

1. The Syndicate claim that "reckless admission" has been really the determining cause for the disastrous results of the last year.

Let us take the 38 Colleges listed in Appendix C of the Special Report and arrange

them in order of rank according to care shown in admission, "care shown in admission" being determined in this case by the percentage of gain in admission in the year 1914-15, as compared with the year 1910, the presumption being that the smaller the percentage of gain in admissions the greater the care in making admissions.

Now divide the Colleges as thus arranged into two Groups, A and B, Group A including the 19 Colleges that stand at the head of the list as determined by care in making admissions; group B including the 19 Colleges that stand at the bottom of the list. The result will be as follows:—

TABLE 1.

The Colleges arranged in order of rank as determined by care in admissions.

Group A.

The Colleges standing at the top of the list. For purpose of easy comparison the rank of each College as determined by the percentage of passes in the Intermediate Examination of 1916 is also given.

No. of College in Appendix C.	Rank of College according to care in admission.	Rank of College according to p.c. of passes in Intermediate Examination of 1916.
30	1	1
28	2	12
7.	3	8
34	4	34
25	5	6
17	6	11
13	7	4
37	8	10
29	9	20
9	10	2
*36	11	3
19	12	26
*24	13	88
*38	14	29
10	15	15
26	16	37
33	17	22
2	18	25
*31	19	28

* Those starred are included in the list of Colleges given in the foot-note on page 4 of the Special Report.

Group B.

The Group of Colleges which stand at the bottom of the list. For purpose of easy comparison the rank of each College according to p.c. of passes in the Intermediate Examination of 1916 is also given.

No. of College in Appendix C.	Rank of College according to care in admission.	Rank of College according to p.c. of passes in Intermediate Examination of 1916.
5	20	16
6	21	24
*14	22	31
*32	23	32
20	24	19
22	25	3
23	26	23
18	27	13
3	28	7
*4	29	27
35	30	9
16	31	18
27	32	17
*11	33	35
1	34	21
*15	35	5
12	36	14
*8	37	36
*21	38	30

Now looking at the table it will be seen that out of the 10 Colleges listed at the bottom of page 4 of the Syndicate's Special Report as being Colleges most reckless in making admissions and therefore faring worst in the examinations, only 6 of these are really in Group B, i.e. the group that have exercised the least care in admissions (*viz.*, 4, 8, 11, 14, 21 and 32) while 4 are in Group A, i.e. the group that have exercised the greatest care in admissions (*viz.*, 24, 31, 36, 38) and one of these, No. 24, fared the very worst of all the Colleges in the examination, its rank in the examination being 38, though its rank was 13 in care in admissions.

Now, if these 38 Colleges be arranged in order of rank according to the percentage of

* Those starred are given in the foot-note at the bottom of page 4 of the Special Report.

passes in the last Intermediate Examination and then divided into two Groups A¹ and B¹, Group A¹ including the 19 Colleges having the higher percentage of passes, and Group B¹ the 19 Colleges having the lower percentage of passes, the result will be as follows:—

TABLE 2.

Colleges arranged in order of rank as determined by percentage of passes in the Intermediate Examination of 1916.

Group A¹.

Colleges standing at the head of the list. For purpose of easy comparison the rank of each College as determined by care in admissions is also given.

No. of College in Appendix C.	Rank of College according to percentage of passes in Intermediate Examination 1916.	Rank according to care in admissions.
30	1	1
9	2	10
22	3*	25
13	4	7
15	5*	35
25	6	5
3	7*	28
7	8	3
35	9*	30
37	10	8
17	11	6
28	12	2
18	13*	27
12	14*	36
10	15	15
5	16*	20
27	17*	32
16	18*	31
20	19*	24

Group B¹.

Colleges standing at the bottom of the list. For purpose of easy comparison the rank of

* Those starred should be in Group B¹, according to rank in care in admissions, if the contention of the Syndicate is correct.

each College according to care in admissions is also given.

No. of College in Appendix C.	Rank according to p.c. of passes in 1916 Inter. Exam.	Rank according to care in admissions.
29	20*	9
1	21	34
33	22*	17
23	23	26
6	24	21
2	25*	18
19	26*	12
4	27	29
31	28*	19
38	29*	14
21	30	38
14	31	22
32	32	23
36	33*	11
34	34*	4
11	35	33
8	36	37
26	37*	26
24	38*	18

Now if the contention of the Syndicate is correct, if it is true that "reckless admissions" has been primarily responsible for the bad results in the examinations then it ought to be true that at least a considerable majority of the Colleges in the A Group (*i.e.* the Colleges exercising greater care in admissions) should also be found in the A¹ group (*i.e.* the group securing the higher percentage of passes in the Intermediate Examination in the year 1916).

As a matter of fact, however, a majority of the Colleges in the A Group (10 out of 19) are found in the B¹ Group, while a similar majority of the Colleges in the B Group (10 out of 19) are found in the A¹ Group.

Thus we see that a majority of the Colleges which belong in the group which has been more reckless in admissions are also found in the group securing the higher per-

* Those starred should be in Group A¹ according to care in admissions, if the contention of the Syndicate is correct.

centage of passes in the examination. Whatever may be the explanation, this is surely conclusive that the "Admission Scandal" was not anything like the determining factor in the low percentage of passes that the Syndicate claim it to have been.

On the other hand, it may be fairly claimed that the larger number of admissions in some of the smaller and weaker Colleges has materially increased the fee income, and thereby enabled these Colleges to provide a better staff and better equipment than they otherwise would have done.

II.

The Syndicate in their Special Report (foot-note at bottom of page 4) claim that "The Colleges which appear to have admitted most recklessly have, generally speaking, fared much the worst in the last examination."

This statement may be true without there being any relation whatever of cause and effect between the practice of reckless admissions and the poor results in the examination.

The real question to determine is, have the Colleges which have recently been most reckless in admissions fared relatively worse in their last examination when compared with the other Colleges that appear to have been more careful in admissions than they did when admissions were made under the old Matriculation standard.

The following table will answer this question:—

TABLE 3.

Table showing average percentage of gain in admissions for all the Colleges of each group in 1914-15, as compared with their admissions in 1910, also average percentage of passes for the Colleges of each group in the Intermediate Examination of 1912 and 1916, the years in which the class admitted in 1910 and 1914-15 went up for the examinations.

Average p. c. of gain in admissions for all Colleges in each group in 1914-15 as compared with 1910.	Average p. c. of passes for all Colleges in each group in the Intermediate Examination of 1912.	Average p. c. of passes for all Colleges in each group in the Intermediate Examination of 1916.
Group A. 166.6	44.9	29.8
Group B. 787.2	38.9	26.5

This table shows that the average percentage of gain in admissions in the 19 Colleges of the A Group between 1910 and 1914-15 was only 166.6 p. c. while the average percentage of gain in the 19 Colleges of the B Group was 787.2 p. c. That is the average percentage of gain for the 19 Colleges in the B Group was 4.7 times greater than the average percentage of gain for the 19 Colleges in the A Group.

Now if the inference which the Syndicate evidently wish us to draw from their statement is true, then it ought to work out that the results secured by the Colleges in the B Group would be relatively as compared with the results obtained by the Colleges in the A Group 4.7 times worse in 1916 than they were in 1912. As a matter of fact, however, instead of being relatively worse in 1916, the average results obtained by the B Group Colleges in 1916 are as compared with the average results of the A Group Colleges better than in 1912.

The average percentage of passes for the 19 Colleges of the B Group in 1912 was 38.9 p. c., while that for the 19 Colleges of the A Group was 44.9 p. c. The average per cent. obtained by the B Group Colleges in 1912 was therefore only 86.6 p. c. of the average per cent. obtained by the A Group Colleges.

Now in the examination of 1916 the average percentage obtained by the 19 Colleges of the B Group was 26.5 p. c. while that obtained by the A Group was 29.8 p. c. The average per cent. obtained by the B Group has therefore risen in 1916 to 88.9 p. c. of

the average per cent. obtained by the A Group, an increase of 2.3 p. c. over 1912.

If the difference between the two groups had remained proportionately the same the average obtained by the B Group in 1916 would have been only 25.8 instead of 26.5 (i.e. 25.8 is 86.6 p. c. of 29.8).

Thus notwithstanding the remarkable increase in admissions for the B Group as compared with the A Group, the B Group has improved its standing as compared with the A Group so far as success in passing examinations is a test, by 2.3 p. c. That is the B Group Colleges are 2.3 p. c. nearer the standing of the A Group Colleges in the examination of 1916, the year in which the last class admitted under the rule giving the Principals of Colleges discretion in admissions was examined, than they were in the 1912 examination, the year in which the last class admitted under the old Matriculation standard was examined.

Take another comparison based on this table. The average percentage of passes for the 19 Colleges of the A Group was in 1912, 44.9 p. c., while in 1916 it was only 29.8 p. c., a decline of 15.1 p. c.

The average percentage of passes for the 19 Colleges of the B Group was in 1912, 38.9 p. c., while in 1916 it was 26.5 p. c., a decline of only 12.4 p. c., or 2.7 p. c. less than the decline in the A Group Colleges.

That is instead of the B Group Colleges being the group that has been most responsible for bringing down the total average p. c. of passes in the 1916 examination, they have really to a small extent helped the general situation by keeping the general average above the place where it would otherwise have been forced down by the average bad results of the A Group Colleges.

Take another test of this question as given in Table 4.

TABLE 4.

Table showing what p. c. the average p. c. of passes of each of the two Groups A and B is of the average p. c. of passes for the whole Presidency in 1912 and in 1916.

The average p. c. of passes for the whole Presidency was for 1912, 43.5 p. c. and for 1916, 26.8 p. c.

Group.	Average p. c. of passes for the group.	p. c. which the average p. c. of passes for the group is of the total average p. c. of passes for whole Presidency.
A Group { 1912	44.9	103.2
1916	29.8	118.3
B Group { 1912	38.9	89.4
1916	26.5	100.7

Here again it is shown that the B Group Colleges which should relatively have done much worse in 1916 than they did in 1912 as compared with the A Group, have really done better. The average p. c. of the A Group compared with the total average p. c. for the whole Presidency has risen from 103.2 p. c. to 118.3 p. c. or a gain of 10.1 p. c. while the average p. c. of the B Group Colleges in relation to the total average p. c. for the Presidency has risen from 89.4 p. c. to 100.7 p. c. or a gain of 11.3 p. c., i.e. 1.2 p. c. more than the rise for the A Group Colleges.

If any one is still unconvinced let us take another test. Let us take the 5 Colleges standing at the very top of the list in order of rank as determined by care exercised in admissions and compare their result with the 5 Colleges standing at the very bottom of the list.

The following table will furnish a basis for comparison:—

TABLE 5.

Table showing rank as determined by care in admission, p. c. of gain in admissions in the year 1914-15 as compared with 1912, the p. c. of passes in the year 1912, and the p. c. of passes in the year 1916 for the two groups of 5 Colleges each, the one group being at the head of the list, the other group at the bottom of the list.

Group A."

The group of five Colleges standing at the top of the list in order of rank as determined by care in admissions.

No. of College in Appendix C.	Rank as determined by care in admissions.	p. c. of gain in admissions in 1914-15 as compared with 1910.	p. c. of passes in 1912.	p. c. of passes in 1916.
30	1	15	57.9	64.5
28	2	9	46.7	32.0
7	3	7	53.3	40.2
34	4	55	45.1	14.8
25	5	69	34.2	43.8
average	...	20.2	47.4	38.9

Group B."

The group of five Colleges standing at the bottom of the list as determined by care in admissions.

No. of College in Appendix C.	Rank as determined by care in admissions.	p. c. of gain in admissions in 1914-15 as compared with 1910.	p. c. of passes in 1912.	p. c. of passes in 1916.
1	34	780	50	24.3
15	35	1243	50	43.8
12	36	1800	21.4	28.8
8	37	2000	9.1	12.9
21	38	2466	37.5	17.1
Average	...	1657.8	33.6	25.8

A comparison of the two groups in Table 5 will show that while the average p. c. of gain in admissions for the five Colleges of the A Group in 1914-15 as compared with 1912 is only 20.2 p. c., the average p. c. of gain for the five Colleges in Group B is 1657.8 p. c. or more than 82 times the p. c. of gain for the A Group.

On the other hand it will be seen that the average p. c. of passes for the five Colleges in the A Group was in 1912, 47.4 p. c., while

in 1916 it was 38.9 p. c., a decline of 8.5 p. c. while, for the five Colleges in B" Group the average percentage of passes in 1912 was 83.6 p. c. and in 1916, 25.3 p. c., a decline of only 8.8 p. c.

Thus notwithstanding the enormous gain in admissions in the five Colleges of the B" Group, an average of 1657.8 p. c. as compared with an average of 20.2 p. c. for the five Colleges of the A" Group, the decline in average p. c. of passes for the five Colleges of the B" Group in 1916 as compared with 1912 is actually 2 p. c. less than the decline in the average p. c. of passes of the five Colleges of the A" Group for the same time.

While therefore it is true as stated by the Syndicate that the Colleges which have been most reckless in admissions have generally fared worst in the recent examination, the inference which we are expected to draw from this, viz., that reckless admissions is the cause of the bad results is by no means warranted.

It is suggested by the Syndicate in their Special Report that "It is in English that the bad effects of indiscriminate admission are most to be expected."

The Chairman of the Board of Examiners in English in his report (Appendix E of the Special Report) says,

"The Intermediate course began with every prospect of success. Since the flooding of the Colleges with unworkable material it has scarcely had a dog's chance."

Tables 6 and 7 will show how far the Chairman was justified in making this statement.

TABLE 6.

Table showing results in English for the A Group Colleges in the Intermediate Examination for the years 1912 and 1916.

No. of College in Appendix C.	Rank according to increase in admissions.	p. c. of passes in English in 1912.	Rank in English in 1912 as determined by p. c. of passes in English.	General rank in 1912 as determined by p. c. of passes in all subjects.	p. c. of passes in English in 1916.	Rank in English in 1916 as determined by p. c. of passes in English.	General rank in 1916 as determined by p. c. of passes in all subjects.
30	1	75.7	8	3	77.4	2	1
28	2	68.3	20	14	42.7	12	12
7	3	84.6	4	6	50.5	7	8
34	4	56.4	24	16	16.8	36	34
25	5	84.2	83	28	57.5	6	6
17	6	70.0	13	32	70.0	4	11
13	7	76.1	7	8	78.5	1	4
37	8	91.6	1	1	41.8	13	10
29	9	51.9	29	27	31.8	21	20
9	10	73.3	10	10	76.4	3	2
33	11	54.3	27	15	21.9	30	32
19	12	80.7	35	31	31.5	23	26
24	13	52.7	28	25	8.6	38	38
38	14	72.0	12	19	21.9	31	29
10	15	56.7	23	34	35.7	17	15
26	16	75.0	9	12	11.7	37	37
33	17	63.9	19	18	28.7	24	22
2	18	44.4	31	17	23.1	27	25
31	19	77.5	6	22	25.5	26	28
Average p. c.		63.8	...	...	39.5	...	...

TABLE 7.

Table showing results in English for the B. Group Colleges in the Intermediate Examination for the years 1912 and 1916.

No. of College in Appendix C.	Rank according to increase in admissions.	p. c. of passes in English in 1912.	Rank in English in 1912 as determined by p. c. of passes in English.	General rank in 1912 as determined by p. c. of passes in all subjects.	p. c. of passes in English in 1916.	Rank in English in 1916 as determined by p. c. of passes in English.	General rank in 1916 as determined by p. c. of passes in all subjects.
5	20	64.2	18	4	39.3	14	16
6	21	56.2	25	36	35.2	18	24
14	22	55.5	26	29	18.8	33	31
32	23	68.7	14	7	17.9	34	32
20	24	50.0	30	33	33.8	20	19
22	25	88.8	2	2	58.7	5	3
23	26	85.7	3	20	26.0	25	23
18	27	60.0	22	23	31.5	22	13
3	28	73.0	11	21	47.7	8	7
4	29	64.2	17	24	21.6	32	27
35	30	60.8	21	9	44.4	11	9
16	31	81.8	84	37	33.8	19	18
27	32	80.0	5	5	86.4	16	17
11	33	87.9	32	30	22.3	29	35
1	34	66.6	16	18	45.9	9	21
15	35	67.5	15	11	45.6	10	5
12	36	28.5	86	85	37.5	15	14
8	37	18.1	38	38	17.8	85	86
21	38	27.5	37	26	22.8	28	30
Average p. c.		57.9	...	...	33.5	...	...

From the above tables it will be seen that for the 19 Colleges in the A Group the average p. c. of passes in English was in 1912, 63.8 p. c. and in 1916, 39.5 p. c., a decline of 23.8 p. c. and for the 19 Colleges of the B Group the average p. c. of passes in English in 1912 was 57.9 p. c. and in 1916, 33.5 p. c., a decline of 23.5 p. c., or 3 less than the average decline in English for the 19 Colleges in the A Group.

If therefore the Intermediate Examination has not had a "Dog's chance" in recent years, this lamentable fact is due slightly more to the 19 Colleges having been most

careful in admissions than to the 19 Colleges having been most reckless in admissions.

One College which actually admitted fewer students to the Junior Intermediate Class in 1914-15 than it did in 1912, thus indicating the most scrupulous care in making admissions, shows nevertheless a marked decline in p. c. of passes in 1916 as compared with 1912, that College passing in all subjects 46.7 p. c. of those sent up in 1912 as compared with only 32.0 p. c. in 1916, a decline of 14.7 p. c.

The general conclusion would therefore seem to be—

1. "Reckless admissions" cannot be said to have had any appreciable effect upon the p. c. of passes in the Intermediate Examination of 1916, since the Colleges that apparently admitted most recklessly have approximately maintained the same standing in relation to the A group Colleges that they had in 1912.

2. Whatever the disease that has produced such a blighting of the educational harvest in 1916, the symptoms of the disease are on the average slightly more marked in the Colleges having exercised more care in admissions than in the Colleges having been more reckless in admissions.

3. The cause or causes for the difference between the Colleges securing the poorer results and those securing the better results are of long standing and go back into the days of the old Matriculation standard of admissions.

If then "reckless admissions" is not the cause for the lamentably low per cent. of passes in the Intermediate Examination of 1915 and 1916, what is the cause?

Two other causes are suggested in the Special Report of the Syndicate—

1. It is suggested by the Examiners in English Poetry (Appendix D) that the Colleges are doing very little to prepare the students to meet the demands made upon them by the new Intermediate Examination as compared with the old First in Arts Examination.

A reference to Appendix A of the Special Report shows that in the year 1911 the

average p. c. of passes was 41.4 p. c., and in 1912 43.5 p. c., and yet these were the first two years in which students went up under the new regulations for the Intermediate Examination. This, if not satisfactory, is at least much more satisfactory than the 27.5 p. c. in 1915, and 26.3 p. c. in 1916. The Chairman of the Board of Examiners in English (Appendix E, page 13) states that "The impression I formed at the time (i.e. 1911, 1912) of the work of the candidates was that it showed a very considerable advance on the work of the candidates under the old F. A. conditions, both as regards ability to write grammatical English and to understand and discuss intelligently the subject matter of the books. These impressions were confirmed by the results of the examination," and the 56.7 p. c. of passes in English in 1911 and the 61 p. c. in English in 1912 is compared with the 34.1 p. c. in English in 1916.

Are we to understand then that the Colleges which were able to meet the requirements of the new regulations fairly well for the first two years of the new Intermediate course so rapidly deteriorated after that time in their ability to prepare their students for the examinations as the results in examinations would seem to show? On the contrary I think those who know the real situation in the Colleges would agree that there has been a decided improvement both in the staff and equipment of the Colleges since the new Intermediate course came into effect.

Inefficient staff and inadequate equipment may be frankly admitted for many Colleges affiliated with the Madras University, while it may just as truly be claimed that there is no causal connection whatever between this fact and the marked decline in average p. c. of passes in 1916 as compared with 1912.

On the other hand inefficient staff and inadequate equipment may be fairly claimed as one reason for the habitually low per cent. of passes in the Madras University.

2. Another suggestion made by the Chairman of the Board of Examiners in English (see Appendix E) is that the students, rather than the professors, are to blame.

It is claimed that "The majority of the students, there can be little doubt, stoutly refuse to believe that the methods of study which call for some independent effort and some little exercise of the faculty of reason are in the long run easier than the traditional methods, and much more paying."

There is doubtless truth in this statement, but was it more true in the examinations of 1915 and 1916 than in the examinations of 1911 and 1912. Doubtless the Chairman of the Board of Examiners in English would hardly admit this, especially if it must be held to apply to all Colleges alike.

This, as in the case of (7) above, may be a reason for the habitually low p. c. of passes in the Madras University but can hardly be admitted as a reason for the marked deterioration in 1915 and 1916 as compared with 1911 and 1912.

3. Still another suggestion is made by the Examiner in English Prose.

It is claimed (see Appendix D, page 11) that "The abolition of the rule disallowing a candidate from appearing for the examination more than three times is responsible for many failures." The examiners admit they do not know the number of these "pen-worn veterans." It is safe to say that it is hardly sufficient to account for the great reduction in per cent. of passes in 1915 and 1916 as compared with previous years.

If then the great decline in the average p. c. of passes in 1915 and 1916 as compared with 1911 and 1912 is not due to "reckless admissions of the unfit," nor to the deterioration in the preparation which the Colleges were able to give the students, nor to the refusal of the students to become independent thinkers, nor yet to the number of "pen-worn veterans," what reason is left?

Two other causes have been suggested.

There are those who hold that the reason is to be found in a raising of the standard required to pass the University Examination. The Syndicate deny any conscious purpose of

raising the standard and even suggest that the standard may have been lowered.

It is fair to say that the Syndicate started out with the assumption that because some of the Colleges had very largely increased their enrolment, therefore a very large number of unfit students had been admitted, therefore a very large per cent. would fail, and a very large number did fail. Has the mental presupposition of the examiners been in any way responsible for the large number of failures? If not consciously, has there then been unconsciously any raising of the standard?

There is still another explanation which one hears occasionally, viz., that there are certain persons largely in control of the University who do not desire that more than a certain more or less indefinite number of persons should pass the examination any one year. Therefore the number of candidates being so largely increased the p. c. of passes was reduced accordingly. This seems on the face of it absurd.

If none of these reasons is true, then it remains for the Syndicate to find some other reason.

Should any one wish to test the accuracy of the figures given in the above tables, the following table will show the data used in the preparation of the tables. The original data is, of course, the table given in Appendix C of the Special Report and the Annual Reports of the Syndicate of the University for the years concerned.

TABLE 8.
TABLE OF DATA ON WHICH THE PRECEDING TABLES ARE BASED.

No. of College in Appendix C of Special Report.	p. c. of gain in admissions in 1914-15 compared with 1910.	Rank as determined by care in admission as indicated by small p. c. of increase.	p. c. of passes in the Intermediate examination of 1916.	Order of rank as determined by p. c. of passes in 1916.	p. c. of passes in the Intermediate examination of 1912.	Order of rank as determined by p. c. of passes in 1912.
1	780	34	24.3	21	50.0	13
2	285	18	21.1	25	44.4	17
3	486	28	41.7	7	42.3	21
4	494	29	18.9	27	39.2	24
5	396	20	28.7	16	57.5	8
6	409	21	23.5	24	32.5	35
7	1	3	40.2	8	55.3	11
8	2000	37	12.9	36	9.1	38
9	188	10	62.7	2	50.0	10
10	256	15	28.5	15	29.7	34
11	577	33	13.4	35	31.0	30
12	1800	36	28.8	14	21.4	35
13	117	7	47.3	4	52.3	8
14	417	22	16.3	31	33.3	29
15	1243	35	43.8	5	50.0	11
16	543	31	26.6	18	13.6	37
17	91	6	35.7	11	30.0	32
18	475	27	28.9	13	40.0	23
19	221	12	21.0	26	30.7	31
20	450	24	26.1	19	30.0	33
21	2466	38	17.1	30	37.5	26
22	457	25	48.2	3	66.6	2
23	460	26	24.0	23	42.8	20
24	223	13	7.8	38	38.8	25
25	69	5	43.3	6	34.2	28
26	281	16	11.7	37	50.0	12
27	566	32	27.9	17	57.1	5
28	9	2	32.0	12	46.7	14
29	167	9	25.4	20	35.0	27
30	15	1	64.5	1	57.9	3
31	309	19	18.6	28	40.0	22
32	442	23	16.0	32	58.1	7
33	282	17	24.1	22	44.2	18
34	55	4	14.8	34	45.1	16
35	496	30	36.8	9	50.0	9
36	206	11	15.6	33	45.6	15
37	144	8	36.0	10	80.5	1
38	248	14	17.4	29	44.0	19

TABLE

TABLE OF DATA USED AS BASIS OF TABLES. THE ORIGINAL SOURCES FROM

No. of Colleges in Appendix C.	Examination of 1909.		Examination of 1910.		Examination of 1911.		Examination of 1912.		Examination of 1913.		Examination of 1914.	
	p. c. of passes.	Rank.	p. c. of passes.	Rank.	p. c. of passes.	Rank.	p. c. of passes.	Rank.	p. c. of passes.	Rank.	p. c. of passes.	Rank.
1	36.4	28	56.2	3	100	1	50	13	44.4	6	47.3	11
2	54.8	10	46.7	16	17.6	34	44.4	17	33.3	18	37.0	18
3	...	...	...	...	45.0	15	42.3	21	20.2	32	25.6	34
4	48.4	18	47.6	14	25.5	29	39.2	24	38.8	12	26.2	33
5	35.6	30	32.6	30	38.7	21	57.5	4	40.0	10	32.9	25
6	35.3	31	37.5	23	22.2	33	12.5	36	25.9	29	30.0	31
7	79.4	1	51.4	8	49.0	11	53.3	6	37.2	15	60.0	2
8	43.5	21	24.0	35	15.3	36	9.1	38	15.7	36	28.8	32
9	68.6	4	48.1	13	34.4	25	50.0	10	26.1	28	31.3	29
10	55.6	9	37.2	28	11.5	37	29.7	34	29.1	23	32.4	27
11	40.0	23	37.2	27	34.7	23	31.0	30	34.0	16	38.8	23
12	61.5	7	37.5	25	60.0	8	21.4	35	28.1	25	56.5	5
13	68.0	5	66.7	1	60.0	7	52.3	8	70.9	1	57.6	4
14	51.9	16	37.3	26	40.0	19	33.3	29	27.2	26	39.0	16
15	34.6	32	37.5	24	23.0	32	50.0	11	26.9	27	41.1	14
16	36.4	27	41.7	19	25.3	30	13.6	37	32.2	19	49.4	9
17	52.4	13	13.3	37	36.3	24	30.0	32	10.3	38	47.6	10
18	17.2	37	47.1	15	66.6	3	40.0	23	45.0	4	38.8	17
19	73.0	3	57.1	2	6.2	38	30.7	31	21.9	30	45.1	12
20	40.0	24	31.6	31	25.0	31	30.0	33	31.5	20	34.2	22
21	24.3	36	22.7	36	61.5	6	37.5	26	10.0	33	25.0	35
22	52.1	15	44.3	17	65.9	4	66.6	2	40.9	7	36.5	19
23	40.0	25	25.0	34	17.6	35	42.8	20	19.0	34	30.3	30
24	38.5	26	38.5	22	40.0	20	48.8	25	28.8	24	35.5	20
25	48.3	19	50.0	10	44.9	16	34.2	28	60.0	2	43.7	13
26	52.9	13	33.3	29	38.4	22	50.0	12	15.1	37	23.9	36
27	73.0	2	55.3	4	57.7	9	57.1	5	37.5	14	22.5	38
28	44.7	20	49.0	12	62.3	5	46.7	14	44.5	5	50.2	7
29	27.5	35	30.9	32	29.3	28	35.0	27	31.2	21	40.9	15
30	54.3	11	53.4	5	70.5	2	57.9	3	53.9	3	59.4	3
31	53.1	12	50.0	11	47.2	12	40.0	22	40.3	9	31.8	28
32	36.0	29	30.0	33	41.9	17	53.1	7	29.1	22	32.7	26
33	61.4	8	52.2	7	40.4	18	44.2	18	38.9	11	38.7	24
34	42.2	22	40.5	21	46.8	13	45.1	16	38.3	13	22.9	37
35	38.9	33	50.9	9	34.1	26	50.0	9	33.9	17	49.4	8
36	29.5	34	41.8	18	29.8	27	45.6	15	22.9	30	34.7	21
37	50.0	17	40.8	20	46.0	14	80.5	1	40.8	8	62.8	1
38	66.6	6	52.4	6	57.1	10	44.0	19	17.5	35	51.8	6

THE REPORTS OF THE SYNDICATE.

Examination of 1915.		Examination of 1916.		Average of rank for 8 years.	Order of rank for 8 years.	Rank as determined by care in admission.	Average of rank 1909-1912.	Order of rank 1909-1912.	Average of rank 1913-16.	Order of rank 1913-16.
p. c. of passes.	Rank.	p. c. of passes.	Rank.							
19.0	26	24.3	21	13.6	9	34	11.2	7	16.0	11
4.5	38	21.1	25	22.0	22	18	19.2	(19, 20)	24.7	29
35.0	10	41.7	7	14.8	12	28	18.0	(13, 14)	20.7	21
31.1	12	18.9	27	21.1	21	29	21.2	(22, 23, 24)	21.0	22
21.1	23	28.7	16	18.8	18	20	21.2	(22, 23, 24)	18.5	(15, 16)
17.7	27	23.5	24	29.2	37	21	30.7	37	27.7	38
59.3	1	40.2	8	6.5	3	3	6.5	4	6.5	(3, 4)
9.5	36	12.9	36	33.7	38	37	32.5	38	35.0	36
54.0	3	62.7	2	14.2	(10, 11)	10	13.0	(10, 11)	15.5	10
20.0	24	28.5	15	24.6	30	15	27.0	32	22.2	25
29.8	13	13.4	35	23.7	27	33	25.7	29	21.7	23
16.0	30	28.8	14	18.6	17	36	18.7	17	18.5	(15, 16)
28.0	18	47.3	4	6.0	2	7	5.2	(2, 3)	6.7	5
15.0	33	16.5	31	24.5	29	22	22.5	25	26.5	31
12.3	34	43.8	5	22.3	23	35	24.3	28	20.0	19
19.8	25	26.6	18	23.0	24	31	28.2	33	17.7	13
8.0	37	35.7	11	25.3	33	6	26.7	31	24.0	27
54.5	2	28.9	13	14.2	(10, 11)	27	19.5	21	9.0	7
32.2	11	21.0	26	19.1	19	12	18.5	16	19.7	18
37.8	8	26.1	19	23.5	25	24	29.7	35	17.2	12
15.9	31	17.1	30	29.1	(35, 36)	38	26.0	30	32.2	37
22.0	22	48.2	3	11.1	6	25	9.5	5	12.7	9
15.3	32	24.0	23	29.1	(35, 36)	26	28.5	34	23.7	35
9.8	35	7.8	38	26.2	34	13	23.2	26	29.2	34
46.6	5	43.3	6	12.3	7	5	18.2	15	6.5	(3, 4)
28.6	14	11.7	37	25.0	32	16	19.0	18	31.0	36
23.0	19	27.9	17	13.5	8	32	5.0	1	22.0	24
39.8	7	32.0	12	10.2	5	2	12.7	(8, 9)	7.7	6
22.1	21	25.4	20	24.9	31	9	30.5	36	19.2	17
40.5	6	64.5	1	4.2	1	1	5.2	(2, 3)	3.2	1
26.3	17	18.6	28	17.3	(15, 16)	19	14.2	12	20.5	30
16.5	29	16.0	32	24.2	28	23	21.2	(22, 23, 24)	27.2	32
26.9	16	24.1	22	15.3	13	17	12.7	(8, 9)	18.2	14
37.6	9	14.8	34	20.5	20	4	18.0	(13, 14)	23.2	28
28.3	15	36.8	9	15.7	14	30	19.2	(19, 20)	12.2	8
22.3	20	15.6	33	23.6	26	11	23.5	27	25.7	30
56.0	4	36.0	10	9.3	4	8	13.0	(10, 11)	5.7	2
17.0	28	17.4	29	17.3	(15, 16)	14	10.2	6	24.5	28

II.

A larger question and one more vital to the best interests of education in the Madras Presidency is this:—

What is the reason for the habitually very low p. c. of passes in the Madras University as compared with other Universities of India and with other countries?

I regret I do not have available data which would show definitely the situation in other Universities on this question.

With reference to p. c. of passes, suffice it to say that there is probably no country in the world that would permit such a low p. c. of passes to continue from year to year as is found in the Madras Presidency.

In the previous discussion two reasons were suggested for the marked reduction in the average p. c. of passes in 1916 as compared with 1912, and it was pointed out that these might much more likely be reasons for the habitually low p. c. of passes in the Madras University than for the marked reduction in p. c. of passes in 1916.

These two reasons were:

Inefficiency on the part of the Colleges and persistence in the "cram method" on the part of the students.

I. It is claimed that the Colleges are inefficient.

Is there reason to suppose that most of the Colleges affiliated with the Madras University are inefficient or if not is there a sufficient number so markedly inefficient as to bring down the total average to an appreciable extent?

A reference to the tables given above will show that there are various Colleges which are, with perhaps an occasional good year, habitually below certain other Colleges as indicated by the p. c. of passes secured from time to time in the University Examinations, and the poorer Colleges do inevitably bring down the general average of all the Colleges.

For example the average p. c. of passes for the last eight years for the College getting the lowest p. c. of passes is 19.6 p. c. as against 56.8 p. c., the average for the College getting

the highest p. c. of passes for the same period a difference of 37.2 p. c.

There can be no doubt that it is the Colleges that are strong financially and therefore better able to provide competent staff and adequate equipment that generally fare best in the examination.

The very fact that some Colleges are better staffed and equipped than others make them more desirable to the student, so that these Colleges have the pick of the students applying in any year for admission to College. This leaves to the poorer equipped Colleges the residue of the students available, and it is really rather surprising to find what good work some of these Colleges are able to do with the material they get.

It may therefore be admitted that there are a number of Colleges affiliated with the Madras University that are very inefficient in staff and equipment, and these inevitably bring down the total average for all Colleges. But this is no doubt equally true of a number of Colleges affiliated with the other Indian Universities. It is also true of Colleges in other countries, and does not account to any considerable extent for the relatively low p. c. of passes in the Madras University.

2. The other reason suggested above is the system of "cram" persisted in by many students. This was the system in vogue in India in the old days before Western Education was introduced; this system was also found fairly successful in the Old First-in-Arts Examination and the students are loth to give it up for the system of independent thinking insisted on by those responsible for the present Intermediate course.

There is no doubt truth in this and yet again one may ask is it more true in the Colleges affiliated with the Madras University than with the Colleges affiliated with other Universities; or than is found in the Colleges in other countries.

A certain amount of information is necessary for definite and independent thinking and the acquiring and holding of information is the work of memory. When a student must cover in one series of examinations the

whole of the work gone over in two or often three years, a certain amount of so-called "cram" or memorizing is imperative. It can hardly be otherwise, whatever the University that prescribes the course of study or sets the examination papers may desire.

If then neither of these reasons is sufficient to account for the habitually low p. c. of passes in the Madras University, are there any other causes that may be suggested?

3. The question of "Standard" has been raised. There is no doubt but that the standard set up by the University is a determining factor in deciding who shall be considered to have passed any given University test. Its influence in the recent Intermediate Examinations must therefore be admitted. No one however would care to deny this influence. The disputed question is, has the standard been too high? The Syndicate think not. They claim that to pass a larger number of students would mean a lowering of the standard, and it is confidently claimed that no reputable educationist would wish to do this since to do this would be to affect adversely the interests of education in the Presidency.

There is moreover a certain pride taken in the fact that Madras has a higher standard than other presidencies, and it is assumed without question that it is highly commendable to Madras.

Now if the principal aim of a University should be to make secure its own dignity by establishing and maintaining a very high standard then this pride is justified.

If on the other hand the principal function of a University is to provide higher education for the people, of such quality and quantity as they are best prepared for and most in need of, then it may be possible for a University to have too high a standard and it becomes an open question whether the standard of the Madras University is not higher than the standard which the High Schools are prepared to work up to in the present backward stage of education in the country, and therefore higher than is at present justified. It may be admitted that the ideal should always be somewhat in advance of realization, but if it is too far

in advance, the results are bad rather than good.

It should be remembered that the pupils completing the High School course already form a very highly selected group, and are a very small number of those who entered the Elementary Schools. The standard of the Madras University hitherto has been such that of the students completing the High School course, only the student who was "considerably above the average" of the students in the Presidency was qualified for admission to College, and again of the students admitted to the College course, it was only the student who was "considerably above the average" in this group who had any chance of passing the Intermediate Examination and proceeding to the B. A. Degree course. Any one familiar with the so-called "curve of frequency" knows that the average in any normal group includes far the larger number of individuals in that group. Therefore wherever this standard of "considerably above the average" is maintained it means that only a comparatively small p. c. of the group can qualify for passing. It will thus be seen how very highly selected must be the group of men who finally obtain the coveted Degree of B. A.

It is claimed by the Syndicate that "if it is true that the standard of the Madras University is higher than the standards of other Indian Universities, that fact is to the advantage of the Presidency as a whole. It is an asset which should not lightly be surrendered." It may be true that "the superior value of the degree is very distinctly to the advantage of those who hold it," but how about those who have striven worthily yet have failed. Probably in no other country in the world is the difference between the salary of the University passed man and the wages paid to the unschooled man so great as it is in India, and in India the "unschooled" forms a very large part of the whole.

In most other countries there are a number of Colleges or Universities, so that if one College or University has a very high standard, there are usually other institutions where the standard is lower, so that if a student

desirous of taking a College course cannot get an entrance to one institution he may be more successful elsewhere.

Nor can it be denied that the student who thus gets admission to the College of lower grade may nevertheless profit very much by his course in the lower grade College, and he may also without doubt be prepared to render a more valuable service to his country on account of his having had a course in the College.

But the standard which the Madras University sets is the only standard for the more than forty Colleges affiliated with it, the only standard for a population of 45,000,000 people, and the Madras University has no place for any boy who is not decidedly above the average all the way along his educational career. The boy of average attainments, and this includes always the great majority, is cast out into the outer darkness where is "weeping and gnashing of teeth."

One may certainly venture to hold the opinion that a University which continuously requires for admission to College a considerably higher rank than the attainments of the average High School boy and then requires of those who get in a very much higher rank than the average to pass the Intermediate Examination and qualify for the course leading to the B. A. Degree is a

higher standard than is good for the country without proving himself an enemy to the best educational interests of the country. It may be that the schools of the Presidency have not yet attained to that degree of efficiency that they should have. That is another question. But the University cannot rightly detach itself wholly from the other units of the educational system. It must connect up in some rational way with what goes before.

The Syndicate in their Special Report (see page 8) admit that "if it could be proved that Madras standards are so high that only a few exceptionally gifted students can satisfy them, then there would be a clear case for altering the standards." But it is claimed that "no such case has been made out." One wonders how much above the general average the Madras standard would have to be in order to make out a clear case!

III.

For those who are interested in finding out what the real faults of the present educational situation are, a study of the variation of the Colleges in their rank as determined by their p. c. of passes from year to year will reveal an interesting and significant situation. The following table shows the amount of this variation:—

TABLE 10.
Table showing variation in rank of Colleges as determined by p. c. of passes each year in the Intermediate Examination from 1909 to 1916.

No. of College in Appendix C.	Variation between 1909 and 1910	Variation between 1910 and 1911	Variation between 1911 and 1912	Variation between 1912 and 1913	Variation between 1913 and 1914	Variation between 1914 and 1915	Variation between 1915 and 1916	Average variation for the 8 years.
1	25	2	12	7	5	15	5	10.1
2	6	18	17	1	0	20	18	10.4
3	—	—	6	11	2	24	3	9.2
4	4	15	5	12	21	21	15	18.2
5	0	9	17	6	15	2	7	8.0
6	8	10	3	7	2	4	3	6.7
7	7	3	5	9	13	1	7	6.4
8	14	1	2	2	4	4	0	3.6
9	9	12	15	18	1	26	1	11.7
10	19	9	3	11	4	3	9	8.8
11	4	4	7	14	7	10	22	10.6
12	18	17	27	10	20	25	16	19.0
13	4	6	1	7	3	14	14	7.0
14	10	7	10	3	10	17	2	8.4
15	8	8	21	16	13	20	29	16.4
16	8	11	7	18	10	16	7	11.0
17	23	13	8	6	28	27	26	18.7
18	22	12	20	19	18	15	11	16.0
19	1	36	7	1	18	1	15	11.3
20	7	0	2	18	2	14	11	7.0
21	0	30	20	7	2	4	1	9.1
22	2	13	2	5	12	3	19	8.0
23	9	1	15	14	4	2	9	7.7
24	4	2	5	1	4	15	3	4.8
25	9	6	12	26	11	8	1	10.4
26	16	7	10	25	1	22	23	14.8
27	2	5	4	9	24	19	2	9.2
28	8	7	9	9	2	0	5	5.7
29	3	4	1	6	6	6	1	3.8
30	6	3	1	0	0	3	5	2.5
31	1	1	10	13	19	11	11	9.4
32	4	16	10	15	4	3	3	7.8
33	1	11	0	7	13	8	6	6.5
34	1	8	3	3	24	28	25	12.4
35	24	17	17	8	9	7	6	12.5
36	16	9	12	15	9	1	12	10.5
37	8	6	13	7	7	3	3	6.0
38	0	4	9	16	29	22	1	11.3
Average variation for all Colleges.	8.2	9.2	9.1	9.9	9.7	11.6	9.3	9.5
p.c. which the actual variation is of the maximum variation possible, viz., 19.	43.0 p.c.	48.4 p.c.	47.8 p.c.	52.1 p.c.	51.0 p.c.	61.0 p.c.	48.9 p.c.	50.0 p.c.

From this table it will be found that the average annual variation in rank for all the Colleges for a period of 8 years, 1909 to 1916 inclusive, is 9.5 out of a possible maximum average variation of 19. The maximum average variation in rank possible for 38 Colleges is 19. The actual average variation therefore for the 38 Colleges listed in Appendix C is 50 p. c. of the maximum possible. The highest average variation for any one College for the eight years is 19, and the lowest 2.5.

What sufficient reason can be assigned for one College standing second in rank in the Intermediate Examination one year and 38th the next year. This is an extreme case but there are a number of instances where the variation between the rank secured by a College one year and the rank of the same College the next year is as much as 20. But still more significant is the fact that the average variation for every one of the 38 Colleges for every year during a period of eight years is 9.5, or one half of the maximum average possible.

Another way of testing this variation in the rank of any one College from year to year as compared with another year is by comparing

the relation which the p. c. of passes secured by that College in the Intermediate Examination from year to year bears to the total average p. c. of passes for all the Colleges for the same years.

Assuming that the papers set for the examinations are from year to year of about the same degree of difficulty, and that the standard for valuing papers remains fairly constant, the general average of passes from year to year ought to be a fairly constant standard by which to judge of the attainments of the students sent up from time to time from each College and therefore in good part a test of the efficiency of that College from year to year.

Therefore any variation in the relation which the p. c. of passes for any College bears from year to year to the general average p. c. of passes for all the Colleges for the same years would actually be a measure of the variation in efficiency of the College from year to year.

The following table shows what the variation is in terms of the p. c. which the p. c. secured by each College from year to year is of the total average p. c. for that year:—

TABLE 11.

Table shewing variation each year in the p. c. which the p. c. secured by each College is of the total average p. c. for 1909 to 1916.

No. of College in Appendix C.	Variation in p. c. between 1909 and 1910.	Variation in p. c. between 1910 and 1911.	Variation in p. c. between 1911 and 1912.	Variation in p. c. between 1912 and 1913.	Variation in p. c. between 1913 and 1914.	Variation in p. c. between 1914 and 1915.	Variation in p. c. between 1915 and 1916.
1	80.9	69.2	126.6	18.0	11.7	52.2	13.3
2	5.5	100.7	59.5	3.2	4.0	78.5	63.9
3	...	...	11.4	36.8	5.2	65.3	35.2
4	24.3	84.5	28.6	26.0	49.0	45.9	41.6
5	10.6	6.6	38.7	13.4	35.4	7.6	32.4
6	26.3	61.4	24.9	45.8	2.4	12.6	25.0
7	44.3	39.3	4.2	11.2	42.5	61.8	62.8
8	35.7	36.7	16.0	26.1	26.8	35.7	10.9
9	24.9	64.5	31.9	36.8	2.1	116.1	42.1
10	25.6	86.4	40.5	18.9	4.1	10.0	35.3
11	13.6	25.5	17.4	30.5	15.1	21.7	57.4
12	39.5	31.9	95.8	35.0	60.7	86.7	51.4
13	33.4	59.7	24.7	92.0	64.6	64.0	96.2
14	16.0	17.8	20.1	4.9	18.6	45.5	8.2
15	28.1	59.5	59.4	34.4	24.8	60.6	121.8
16	36.5	66.8	29.9	65.2	30.2	54.6	29.0
17	90.9	46.9	18.7	38.1	91.2	93.1	106.8
18	107.2	16.4	68.9	42.8	35.3	98.7	88.3
19	8.3	160.2	55.5	4.9	50.1	1.4	87.2
20	3.6	36.5	8.5	25.4	6.7	49.5	37.9
21	8.6	78.9	62.3	26.4	4.2	6.2	7.2
22	4.9	23.3	6.0	30.7	28.9	13.3	108.2
23	23.9	34.1	55.8	41.5	20.8	22.1	35.7
24	21.3	21.4	7.5	2.9	4.8	55.4	6.0
25	32.0	44.9	29.8	101.0	67.6	54.4	4.8
26	30.8	9.4	22.2	69.7	16.0	42.4	59.2
27	13.8	30.3	8.1	19.0	54.6	33.3	15.1
28	37.0	1	43.1	25.9	4.5	16.0	23.1
29	25.7	24.0	9.7	13.0	11.4	20.2	11.9
30	33.2	30.3	8.1	30.1	9.0	5.3	98.2
31	19.8	41.8	19.6	28.7	39.1	14.0	24.5
32	1.6	9.2	20.8	34.9	3.3	23.8	7
33	5.8	62.6	4.1	14.8	30.0	11.4	6.2
34	16.5	11.2	9.4	11.0	55.9	78.0	80.5
35	74.1	76.9	32.6	13.5	25.2	23.7	37.0
36	54.2	58.3	32.9	36.3	20.4	7.9	21.7
37	5	14.0	73.9	62.9	38.9	20.8	45.0
38	7.2	47.0	12.6	48.8	80.5	71.0	4.3
Average	31.8	45.5	32.8	32.1	28.8	41.5	41.6

Final total average p. c. variation of all the 38 Colleges for eight years, 36.2.

TABLE

TABLE SHOWING DATA FOR TABLE 10-P. C. OF PASSES SECURED BY
AND TABLE 11, THE P. C. WHICH THIS P. C. IS OF THE

Number of College in Appendix C.	1909 Total average for the year 39.8 p. c.		1910 Total average for the year 32.9 p. c.		1911 Total average for the year 41.4 p. c.		1912 Total average for the year 43.5 p. c.	
	p. c. of pass- es for each College.	p. c. which the p. c. secured by each College is of the total average p. c.	p. c. of pass- es for each College.	p. c. which the p. c. secured by each College is of the total average p. c.	p. c. of pass- es for each College.	p. c. which the p. c. secured by each College is of the total average p. c.	p. c. of pass- es for each College.	p. c. which the p. c. secured by each College is of the total average p. c.
1	36.4	91.4	56.2	172.3	100.0	241.5	50.0	114.9
2	54.8	137.7	46.7	143.2	17.6	42.5	44.4	102.0
3	...	...	...	...	45.0	108.6	42.3	97.2
4	48.4	121.7	47.8	148.0	25.5	61.5	39.2	90.1
5	35.6	89.4	32.6	100.0	38.7	93.4	57.5	132.1
6	35.3	88.7	37.5	115.0	22.2	53.6	12.5	28.7
7	79.4	191.9	51.4	157.6	49.0	118.3	53.3	122.5
8	43.5	109.3	24.0	73.6	15.3	36.9	9.1	20.9
9	68.6	172.4	48.1	147.5	34.4	83.0	50.0	114.9
10	55.6	139.7	37.2	114.1	11.5	27.7	29.7	65.2
11	40.0	100.5	37.2	114.1	36.7	88.6	31.0	71.2
12	61.5	154.5	37.5	115.0	60.0	144.9	21.4	49.1
13	68.0	170.8	66.7	204.6	60.0	144.9	52.3	120.2
14	51.9	130.4	37.3	114.4	40.0	96.6	33.3	76.5
15	34.6	86.9	37.5	115.0	23.0	55.5	50.0	114.9
16	86.4	91.4	41.7	127.9	25.3	61.1	13.6	31.2
17	52.4	131.6	13.3	40.7	36.3	87.6	30.0	68.9
18	17.2	43.2	47.1	144.4	66.6	160.8	40.0	91.9
19	73.0	183.4	57.1	175.1	6.2	14.9	30.7	70.4
20	40.0	100.5	31.6	96.9	25.0	60.4	30.0	68.9
21	24.3	61.0	22.7	69.6	61.5	148.5	37.5	86.2
22	52.1	130.9	44.3	135.8	65.9	159.1	66.6	153.1
23	40.0	100.5	25.0	76.6	17.6	42.5	42.8	98.3
24	38.5	96.7	38.5	118.0	40.0	96.6	38.8	89.1
25	48.3	121.3	50.0	153.3	44.9	108.4	34.2	78.6
26	52.9	132.9	33.3	102.1	38.4	92.7	50.0	114.9
27	73.0	183.4	55.3	169.6	57.7	139.3	57.1	131.2
28	44.7	113.3	49.0	150.3	62.3	150.4	46.7	107.3
29	27.5	69.0	30.9	94.7	29.3	70.7	35.0	80.4
30	54.3	136.4	53.4	169.6	57.7	139.3	57.1	131.2
31	53.1	133.5	50.0	153.3	47.2	111.5	40.0	91.9
32	36.0	90.4	30.0	92.0	41.9	101.2	53.1	122.0
33	61.4	154.3	52.2	160.1	40.4	97.5	44.2	101.6
34	42.9	107.7	40.5	124.2	46.8	113.0	45.1	103.6
35	33.9	85.1	50.9	159.2	34.1	82.3	50.0	114.9
36	29.5	74.0	41.8	128.2	29.8	71.9	45.6	104.8
37	50.0	125.6	40.8	125.1	46.0	111.1	80.5	185.0
38	66.6	167.9	52.4	160.7	57.1	113.7	44.0	101.1

12.

EACH COLLEGE IN THE INTERMEDIATE EXAMINATIONS 1909 TO 1916.

TOTAL AVERAGE OF THE WHOLE UNIVERSITY.

1913 Total average for the year 33.4 p. c.		1914 Total average for the year 39.0 p. c.		1915 Total average for the year 27.5 p. c.		1916 Total average for the year 26.3 p. c.	
p. c. of pass- es for each College.	p. c. which the p. c. secured by each College is of the total average p. c.	p. c. of pass- es for each College.	p. c. which the p. c. secured by each College is of the total average p. c.	p. c. of pass- es for each College.	p. c. which the p. c. secured by each College is of the total average p. c.	p. c. of pass- es for each College.	p. c. which the p. c. secured by each College is of the total average p. c.
44.4	132.9	47.3	121.2	19.0	69.0	24.3	82.3
33.3	98.8	37.0	94.8	4.5	16.3	21.1	80.2
20.2	60.4	25.6	65.6	35.0	130.9	41.7	168.1
38.8	116.1	26.2	67.1	31.1	113.0	18.9	71.4
40.0	119.7	32.9	84.3	21.1	76.7	28.7	109.1
25.9	74.5	30.0	76.9	17.7	64.3	23.5	89.3
37.2	111.3	60.0	153.8	59.3	215.6	40.2	152.8
15.7	47.0	28.8	73.8	9.5	38.1	12.9	49.0
26.1	78.1	31.3	80.2	54.0	196.3	62.7	238.4
29.1	87.1	32.4	83.0	20.0	73.0	28.5	108.3
34.0	101.7	33.8	86.6	26.8	108.3	13.4	50.9
28.1	84.1	56.5	144.8	16.0	58.1	28.8	109.5
70.9	212.2	57.6	147.6	23.0	83.6	47.3	179.8
27.2	81.4	39.0	100.0	15.0	54.5	16.5	62.7
26.9	80.5	41.1	105.3	12.3	44.7	48.8	166.5
32.2	96.4	49.4	126.6	19.8	72.0	26.6	101.0
10.3	30.8	47.6	122.0	8.0	28.9	35.7	135.7
45.0	134.7	38.8	99.4	54.5	198.1	28.9	109.8
21.9	65.5	45.1	115.6	32.2	117.0	21.0	79.8
31.5	94.3	34.2	87.6	37.8	137.1	26.1	89.2
20.0	59.8	25.0	64.0	15.9	57.8	17.1	65.0
40.9	122.4	36.5	93.5	22.0	80.0	48.2	183.2
19.0	56.8	30.3	77.6	15.3	55.5	24.0	91.2
28.8	86.2	35.5	91.0	9.8	35.6	7.8	29.6
60.0	179.6	43.7	112.0	46.6	169.4	43.3	164.6
15.1	45.2	23.9	61.2	28.5	103.6	11.7	44.4
37.5	112.2	22.5	57.6	23.0	90.9	27.9	106.0
44.5	133.2	50.2	128.7	39.8	144.7	32.0	121.6
31.2	93.4	40.9	104.8	22.1	84.6	25.4	98.5
53.9	161.3	59.4	152.3	40.5	147.0	64.5	245.2
40.3	120.8	31.8	81.5	26.3	95.5	18.6	70.7
29.1	87.1	32.7	83.8	16.5	60.0	16.0	60.7
38.9	116.4	33.7	86.4	26.9	97.8	24.1	91.6
38.3	114.6	22.9	58.7	37.6	136.7	14.8	56.2
33.9	101.4	49.4	126.6	28.3	102.9	36.8	139.9
22.9	68.5	34.7	88.9	22.3	81.0	15.6	59.3
40.8	122.1	62.8	161.0	50.0	181.8	36.0	136.8
17.5	52.3	51.8	132.8	17.0	61.8	17.4	68.1

Table 11 is meant to show the variation in the results of each College from year to year as compared with the average results for all the Colleges for the same time. Such variation has significance with reference to the question as to how far the element of chance enters in to determine the question of success or failure for any student taking an examination.

In this table the question as to whether the standard of the examination varies from year to year is of no consequence.

Suppose that in one year the average p. c. of passes for all the Colleges is 40 p. c. If in the same year a certain College passes 40 p. c. of the students sent up, then the p. c. for the particular College is 100 p. c. of the total average p. c. for all the Colleges. If in the next year the total average for the year is 30 p. c. and the p. c. for this particular College is 30 p. c., then the p. c. for this particular College is still 100 p. c. of the total average p. c. for that year.

The greatest variation is for College No. 19 in the years 1910-11 when the variation was 160.2 p. c., while the smallest variation was in College No. 28, for the years 1910-11, when the variation was only 1 p. c.

The total average variation for the 38 Colleges for the eight years is 36.2 p. c.

This table like the one giving the variation in rank shows on the whole a remarkable variation from year to year, a variation the extent of which seems impossible, if the natural ability of the students and the efficiency of the training which they receive from year to year are the only variable factors.

There must be other variable elements.

If one would compare the variation in the p. c. of passes in any one subject from year to year, it would, I think, though I have not worked it out, be found to be greater than the variation which is found in the average p. c. of passes in all the subjects for the same years.

I believe it is also true, though again I have not worked it out, that the variation in the total average p. c. of passes for all the

Colleges for any one subject would vary from year to year more than the total average p. c. of passes for all the subjects. If so this would show that the test in one subject is relatively harder as compared with the test for some other subjects in some years than it is in other years. If so, this would again seem to show that while the average p. c. of passes for all Colleges for any two years might be the same, and even the native ability and training of the students remain constant, there might yet be a decided difference in the p. c. of passes secured by any one College for the two years.

Suppose for instance that a certain College is strong in English but weak in Science. Now if for any one year the test in Science is easy and the test in English hard, this College would secure a fair p. c. of passes in both subjects. But if in the subsequent examination the test in English were easy and the test in Science hard, the p. c. of passes in both subjects would be much less for that College, even though the general average of passes in all subjects for the Presidency might remain the same.

But even allowing that this factor may be partly responsible for the variation in rank for any College from year to year, it does not seem sufficient to account for the total variation in a College from year to year.

Is there then an element of chance coming in to determine in part whether a given student will pass or fail in the examination? It is generally believed that there is. The two tables above, numbers 10 and 11, seem to give some warrant for this belief.

Where everything depends on the result obtained in one examination coming at the end of a two years' course, it is impossible but that there should be a large element of chance as to the success or failure of any examinee, especially if he is near the border line separating those passing from those failing. It not infrequently happens that some of the very best students in the class as determined by their class work during the two years fail, while others who have done indifferent work pass. What then shall be said of the large number of students who are

near the "dead line." This would be remedied in part if the work of the student during the two years of his course preceding the examination was also taken into account, and the result obtained in the Public Examination modified thereby. This is already done in the School Final Examination, and this principle might well be introduced into the Intermediate Examination. Surely when so much is at stake it is the duty of the University to eliminate the element of chance so far as possible.

IV.

There is another question raised by the Syndicate in their Special Report which perhaps deserves some attention. This question relates to the distribution of blame, especially for the reckless admissions of the past few years.

The Syndicate admits that it is partly to blame for the reckless admissions of the years 1911-14, since for a time though knowing that the Colleges were admitting unfit students, they only "remonstrated with the Principals of the Colleges which seemed to have been most lax, and sent recommendations to all the Colleges as to the principles of admission," while "these recommendations were to a great extent disregarded," until after four years of trial the privilege of discretion in admissions, except for students attaining a minimum standard fixed by the Syndicate, was taken from the offending Principals.

It is fair to ask whether the smaller mofussil Colleges, for these seem to have been the principal offenders, would not have co-operated both more intelligently and more gladly with the Syndicate in trying to maintain a fairly high standard of admission if the Syndicate had invited the Colleges to a Conference in which the University could have explained what they were trying to do and what they wished the Colleges to do, and what standards they wished maintained and why, instead of treating them from the first as naughty children whose only part was to obey the law laid down by their elders, while threatening them with dire punishment if they should disobey.

Neither in the organization of the new courses of study, nor in the kind of tests to be set up at the end of the course, nor yet in the conditions to be met before one could be declared to have passed the test were the Colleges as such ever consulted in any particular nor given any opportunity whatever to express an opinion on these to them most vital matters.

If those connected with the smaller Colleges were not as competent to determine what the ideal standard of an ideal University should be they were perhaps as closely in touch with the real needs of the people as those connected with the great Colleges in the larger centres.

According to the organization of the Madras University the Colleges as such have no part in determining what the courses of study shall be, nor what standard shall be required in admission to them or in passing from one course to another. The part assigned to the Colleges is to teach the courses of study prescribed by the University to those students whom the University certifies to be fit to enter upon them. The University is a thing in itself quite apart from the Colleges which are affiliated with it. This may be the best way, but it can hardly be denied that the Colleges which after all have to do the teaching, might with profit to all be given an opportunity to express an opinion occasionally on such vital matters as the courses of study which they are to teach, the standard of admission to those courses and the kind of test that should be prescribed for those who have completed the course.

W. M. ZUMBRO.

சாணக்ய சாகஸம் .

அல்லது

சந்திரகுப்த சரித்திரம்.

ஸ்ரீமதி வி. பாலநிமாசி அவர்களால் இயற்றப் பட்டது. விலை ரூ 1, தபால்சாரிஜ் பிரத்தியோகம். வேண்டுவோர் அடியில்கண்ட விலாசத்துக்கு எழுதி பெற்றுக்கொள்ளலாம்.

ஸ்ரீமதி வி. பாலநிமாசி,

"விவேகோதயம்" பத்திராதிபர்,
85, பெப்ஸ் ரோட், திருவல்லிக்கேணி.

**THE
MAHOMEDAN EDUCATIONAL
CONFERENCE OF SOUTH INDIA.
PRESIDENTIAL ADDRESS.***

GENTLEMEN:

In the lives of individuals as well as in the history of nations, we frequently come across periods which are over-shadowed by some great calamity, and sometimes it is the whole world that is overtaken by a cataclysmic catastrophe engulfing all, guilty and innocent, rich and poor, young and old alike. It is in the shadow of just such a catastrophe that we are at present living. More than two years have elapsed since practically the whole of Europe and considerable portions of other continents of the world, have been engaged in a war, which, in its sanguinary character, and the blow that it threatens to deal to our economic and social life, is probably unparalleled in the history of mankind. To us in India it is a matter of pride that we are the subjects of a sovereign, who has unsheathed his sword in the cause of Righteousness and in the chivalrous defence of a weak and unoffending nation against a powerful enemy, whose greed breaks all laws and who threatens not only culture in the broadest sense of the word, but also those ethical principles on which alone a refined human society can be based. During times such as these, it is hardly possible to take any big steps towards educational reform, yet, if there be difficulties in the way of practical action through a straitening of the financial resources, it is open to us to at least give thought to the problems that face us, and to prepare ourselves for the future, so that, as soon as these troublous times are over and those ideals realized for which our Empire is fighting, we may have ready a definite and deliberately considered programme of our educational work, which we will then be able to carry into speedy execution. I, therefore, consider this Conference as a preparation for the good time that is soon coming, when peace and quiet, without which no constructive work is possible, will again reign supreme in the world.

* This is an abridged paraphrase of the address delivered in Urdu before the Mahomedan Educational Conference of South India held at Vaniyambadi on the 28th October 1916, by A. Hydari, Esq., Secretary to H. H. The Nizam's Government, Judicial, Police and General Departments.

I do not know in what words to express to you my thanks for the very great honour that you have done me in asking me to preside over the deliberations of a Conference, which aims at looking after the educational interests of the Mussalmans of Southern India. My connection with your Province dates back to a time just 16 years ago, when in the course of my official career, I spent ten never-to-be-forgotten months in Madras. Amongst the several friendships which I then made and which I have ever since cherished among my most treasured possessions, is that of Mr. Ibrahim Quaraishi who belongs to that small band of truly unselfish and sincere workers who have done so much for the education of our community in this part of India and who have raised in us a hope, that Vaniyambadi will at no distant date become the Aligarh of the South. As to my qualifications for the task which you have so generously entrusted to me, I would like to point out that although the duties of my present office in His Highness the Nizam's Dominions include the educational activities in the State, which to a certain extent are connected with those of this Presidency, most of our educational problems are peculiar and unique and though I may thus bring a certain amount of intellectual detachment in the consideration of your problems, I cannot realize with the same vivid consciousness as yourselves, your feelings and sentiments which after all usually determine more than the intellect, the course of thought in all great issues. I would therefore beg of you not to take the remarks that I propose to make as having in any way any authority, but as more or less suggestions from one who is inspired by absolute sympathy with all your aspirations and aims and who, though not actually living in your midst, has yet that intense feeling of brotherhood which is the sacred inheritance of the followers of Islam. And if I am able to throw new light upon the questions that are engaging your attention and thus help you to some extent in their solution, I shall consider myself more than amply rewarded.

Gentlemen, there was a time when it was necessary for us not only to speak but even to preach about the necessity and importance of education in our community. That time, thanks be to God, is now past and the desire for education is gradually per-

meeting the masses of our community with an ever increasing rapidity. But it is necessary that, like the Sahukar who every year on the Diwali day takes stock of his year's transactions, we too should by means of an annual Conference such as this, take stock of our work during the last twelve months and see what progress we have made in that period, what fruit our efforts have borne, what stage we have reached, and what we intend to achieve in the near future. If in the course of our deliberations we discover that our position is not as sound as we had believed it to be, we should guard against undue pessimism, for pessimism you should remember, stifles energy without which no work of regeneration is possible. A community that has learned to face unpleasant facts with calmness has taken the first and perhaps the most difficult step on the road to progress. Equally should we guard against any undue elation lest it lead us to a state of indolent contentment which has only too often, alas, been the ruin of a people.

PRIMARY EDUCATION.

You will therefore, I trust, bear with me if I recount a few salient facts relating to the position of the Mahomedans in Southern India as a community. Of all the provinces of British India with the solitary exception of the Central Provinces, Madras has the smallest proportion of Mussalmans, viz., 662 per 10,000 of the population. From the point of view of literacy however, they have a much higher proportion of literates than their co-religionists in most other provinces, nay more than even their Hindu neighbours. According to the last Census Report of India, the Mahomedans of Madras have 166 male literates and 11 female literates per 1,000 and the Hindu population has 135 and 11 respectively. The proportion of literates amongst Mahomedans in Bombay is 85 male and 7 female, in Bengal 72 and 2, in the United Provinces 85 and 6 and in the Punjab 27 and 2. In Hyderabad too, though the percentage is much better, it is still less than Madras, being only 103 and 13. According to the last Quinquennial Review of Education, the percentage of Mahomedan pupils to the total of pupils of all classes in public institutions was much higher than the percentage of the Mahomedan population to the total population in Madras. We there see that whilst in the Punjab

where we form nearly 55 per cent. of the population, our children of the school-going age are only 39 per cent. of the total school-going population, and in Bombay where we constitute 18 per cent. of the population, only 16.6 per cent. of the school-going children are Mussalman, in Madras in 1912, 9 per cent. of the school-going children belonged to our faith, though our community numbers only 6.6 per cent. of the total population. This is in a way a gratifying record, and is a testimony to the intelligence and enterprise of the Mahomedans of South India. Do not, however, let yourselves be unduly elated by these figures; for the reason why the position of Mahomedans all over India seems satisfactory as regards primary education is owing to the fact that the pupils attending Koran Maqtabs are included in the statistics as children belonging to Primary Schools. Now these as they exist at present, we must remember, are not of any great help to us in breaking down illiteracy. And though in Madras our percentage of literacy too as defined in the Census Report is better than that of our community elsewhere and also of the Hindu community at large, yet even this percentage in itself is not sufficiently high when compared with the percentage of the more progressive sections of the Hindu community in India. One way in which a great impetus can be given to the extension of Primary Education amongst the Mahomedans of Southern India, as elsewhere, is to develop the religious Maqtabs into Elementary Schools teaching the 3 R's and through Elementary Urdu Readers giving the child some knowledge of his surroundings. By the reading of the Koran taught in these Maqtabs a child *ipso facto* gets a certain acquaintance with Urdu script and pronunciation, so that it will not be difficult to make the conversion suggested and thereby give the child an education sufficient to prevent his relapsing into ignorance after a time, as is the case with those who attend the present Maqtabs. Some of these children might proceed later on towards the higher stages of instruction and thus improve our percentage for Secondary education which as you will presently see is very low indeed. You are aware that Burma has the highest proportion of literates and one reason for it is the existence of Pongyi Ohawngs which corre-

spond to our Maqtabs as they will be when some secular education is imparted in them. Primary education is an essential factor in national progress and unless we make its extension a vital point in our programme it will be useless to expect any progress in higher education. I would therefore ask this Conference to consider the advisability of taking immediate and urgent steps in the conversion of the hundreds of thousands of religious Maqtabs into Primary Schools and with this view, to organize Committees in every district who would report progress from year to year and show that success has attended their efforts. They must remember that such an extension of these schools helps even the object for which they are originally created by their founders, viz., Koran teaching, since the reading of Urdu readers necessarily helps the learning of the Koran. His Highness' Government have decided to assist a similar conversion of the Mosque schools in their dominions by liberal grants-in-aid, and I have no doubt that the British Indian Government, who have in their important resolution of the 21st February 1913 acknowledged the effect of the introduction of a simple vernacular course into Maqtabs in spreading elementary education amongst Mahomedans, will not be less liberal in this respect. I cannot lay too great an emphasis on this work, for if the hundreds of thousands of Maqtabs are converted into instruments of elementary education, we shall practically have solved our educational problem of this stage at least, for, elementary education will then have become our possession.

SECONDARY EDUCATION.

Now when we turn our attention towards our position as regards Secondary Education in this Presidency a truly depressing state of things is revealed to us. We find that the number of Mussalman pupils in Secondary Schools in 1914 was 6,543 and in 1915 it had increased by only about 188. This can in no way be called a satisfactory rate of progress as it is only 2.8% as compared with 6.7 for the Presidency. In the High School Leaving Certificate Examination in 1914, 160 students were successful and in 1915 only 170. Coming to percentages, as previously remarked, the percentage of pupils in the primary stage to the total population

was for the Mussalmans 4.8 and for the Hindus 2.8 (the Brahmin percentage being 8.1) but the percentage of Mussalman pupils in the secondary stage to their number in the primary stage was 5.5 whilst the Hindu percentage was 10.3 thus practically a reversal of the position in this stage. The Brahmin percentage was 12.2.

Let us now endeavour to find out what the special causes are that have led to this state of affairs. So far as I have been able to ascertain them, I am informed that the special difficulties in your Presidency, in the way of Mahomedan boys in Secondary Schools, are several. In the first place, the Government considers itself responsible only for Primary Education. Secondary Education it leaves to be more or less looked after by the philanthropy and public spirit of private individuals or communities or Missionary zeal, and to some extent, to Municipalities and Local Boards. Now, owing to the poverty of the Mahomedans they cannot found private schools of their own to any great extent. Nor can they rely on private institutions started by the members of other communities, for their pupils are frequently unable to pay the fees required which support their schools. Sometimes they are excluded on other grounds such as the original wishes of the founder himself. Even if there are no difficulties of admission, there is the difficulty in the case of most Mahomedan boys with regard to the vernacular. There is no provision usually in these schools not even in most Municipal and Board Schools for the teaching of Urdu, the study of which the Mahomedans of India have come to look upon as a duty since they regard it as the language of their particular culture and the medium of instruction in their religion. The absence of provision of Urdu teaching in Secondary Schools effectually keeps off Mahomedan boys from these schools. Your late Director of Public Instruction, Sir Alfred Bourne, felt this difficulty when he pointed out the paucity of Secondary Schools with Urdu as their medium of instruction and the disadvantages that Mahomedan pupils laboured under, owing to the medium of instruction in the classes being in another vernacular. Another difficulty is that Mahomedans are still wedded to the idea of religious education and although they are becoming

more and more alive to the necessity of sending their boys to purely secular schools, that difficulty still exists at least in some parts of the country. I do not say that there is not another effective cause and that is the indifference of the Mahomedans themselves to higher secular education, but that indifference is now disappearing.

The difficulties that I have specified require a radical remedy. Concessions like those granted by the Madras Government of contributing half fees for Mahomedan pupils admitted by private schools are inadequate. The Educational Commission of 1882 attached so much importance to the problem of Mahomedan education that it ordered that a separate chapter in each Administration Report should be devoted to it. There is a strong feeling I understand in Madras that Mahomedan education should be in charge of a Special Assistant to the Director of Public Instruction who should be given the same status as the Inspector of European Schools and who would be in direct touch with the Director. Such an officer has been appointed in Bengal. In a Circular of 1913 referring to the backwardness of Mahomedans in Secondary as compared with Primary education, the Government have advised the expansion of the existing Mahomedan schools and colleges, the opening of fresh schools and hostels, the appointment of special Inspectors and an adequate representation of Mahomedans on the Managing Committees of mixed schools and colleges. It is with considerable hesitation that I invite attention to these special recommendations, for I am strongly opposed to that spirit of mendicancy for special favours or invidious distinctions which are so inconsistent with the self-respect of a community like ours. It is only owing to the fact that the advance of the Mahomedans is bound up with the larger interests of India itself—the interests both of the Government and of the sister communities—that I have decided to refer to these concessions. What I should like, however, the Mahomedans to do, is to try in this and in other respects to stand on their own legs and to come forward to help themselves. For this reason, I would commend for their consideration the advisability and feasibility of voluntarily imposing a tax upon themselves for the furtherance of secondary and higher education

in their community. A resolution asking for an additional cess being levied on them by the Government on all public revenues derived from them whether it be land revenue, customs, octroi, house-tax, or income-tax would be a practical earnest of their desire to try to utilize all their resources and would take away the sting of charity from any request for their being supplemented in case they proved inadequate. Before any definite proposals, however, on these lines are made, there will doubtless be an investigation of the statistics of revenue, etc., but at present I can think of no more fruitful remedy than the one I have suggested for meeting the special problems of Mahomedan education in the South.

That an effectual remedy should be found is a pressing problem when we remember that it is this stage which leads to higher education and it was secondary education about which Prince Bismarck said in 1895, "If I had not found in our nation the preparatory work of the Secondary teaching profession, I do not believe that my work, or the work in which I have collaborated would have met with such success," and in reality, you know what a potent factor the German Secondary Schools have been in producing German unity. I shall not be far wrong when I emphasize the fact that it is the future of secondary education which will ultimately decide our fate.

In connection with the establishment of special schools for Mahomedans I feel it my duty to refer to the remarks of the Government of India in 1913-1914. "It is interesting," they say, "to find that in several reports mention is made of the readiness of Mahomedans to enter the common schools and of the unpopularity of special institutions. Notwithstanding satisfactory progress in the number of Mahomedan pupils in Madras, schools chiefly intended for this class of the community decreased and their pupils fell off by over 10,000. The Mahomedan High School in Bombay which offers many advantages, is shunned by those who can afford to send their children to other institutions. The Director in Burma, in answering the question whether Mahomedans are really apathetic in the matter of education, says that their only apathy

seems to be in not wishing to send their childrens to purely Mahomedan schools."

I do not myself wish to express any opinion on this remarkable pronouncement of the Government of India except to say that the growth of the Vaniyambadi High School seems rather to make it hazardous to indulge in any hasty generalization. I am sure that this Conference will thoroughly examine the question and will make it quite clear to the authorities whether this aversion to special schools is due to their denominational character or to defects entirely unconnected with it, defects of management defects of discipline, defects of staff and equipment.

UNIVERSITY EDUCATION.

When we come to turn our eyes to University Education we find that we have hardly achieved anything at all and that our position there requires immediate attention and great efforts before it can be bettered. In 1914 only 1 Mahomedan appeared for the M.A. examination and was successful. In the B.A. 3 students out of the 4 that had gone up for it, passed. In the L.T. examination all the 4 students passed. In Law, in the first examination 3 passed out of 4; whilst in the B.L. the two that appeared failed. In the Intermediate 25 students out of 95 passed. Turning to the figure, for 1915 we find that no one appeared for the M.A. examination; in the B.A. 8 were successful out of 23; in the F. L. 1 out of 3; in the B. L. 1 out of 5 and in the Intermediate only 25 out of 113. So we see that the results for the year 1915 were much worse than those for 1914. The percentage of Mussalmans in collegiate institutions on those in the Secondary stage is 2.9 whilst the corresponding Hindu percentage is 7.6, the Brahmin percentage being 11.6. I however sincerely hope that with the development of Vaniyambadi into the Aligarh of the South, these depressing statistics will undergo as complete a change as has been effected by the establishment of Aligarh in the North.

One of the objects of the Fund from the Mahomedan Educational cess, if it comes to be levied as suggested above, will be the provision of adequate scholarships for poor promising Mahomedan boys to enable them to continue their studies in college. It has been reported that there has been a great

dearth of educated Mahomedans in the Educational Service and that they fight shy of entering it. Unless and until we have a band of unselfish sincere workers like Mr. Qasraishi and unless and until we can produce young men fired with the zeal of missionaries and ready to consecrate themselves to the noble work of teaching at a bare pittance, it is useless to hope for the elevation of our community. We should remember that one of the many great dangers that await us through our educational backwardness and apathy is the fear of our faculties becoming atrophied by disuse.

It is perhaps on this account that many Mahomedans have for sometime past been casting longing eyes at the idea of a Mahomedan University. As a matter of fact, Sir Syed Ahmed pointed out soon after the foundation of the Aligarh College that until a people had a University of their own, they could not produce men of plain living and high thinking animated by the patriotism and selflessness so necessary for those who were to become the missionaries of culture and civilization amongst their people. For a long time, this idea of his remained unrealized, but some years after, the leaders of our community took upon themselves the task of giving a practical shape to it and the response it then met with from the Mahomedan community from every corner of India was such as had not been accorded before to any other movement. Strange to say that soon after, we heard clamours for Universities everywhere. The Hindu University has recently obtained its charter, the Mysore University is practically an accomplished fact and legislation for the Patna University is actually before the Imperial Council, whilst the schemes for the establishment of Universities at Dacca and Nagpur are already far advanced.

I have never made any secret of my views about denominational Universities; but the Mahomedan University must now be accepted as a settled fact and I have therefore not hesitated in doing what little I could to further its development on lines which would make for our real progress and minimize the evils almost inseparable from a University to be run by a community so poor in men of leisure and culture and so scattered as the Mussalmans of India. I am glad that the controversies, very often

bitter, that were waging round it are now at rest leaving thereby free our energies for the consideration of real progress. The constitution that is now being evolved for our University, is I am glad to hear, likely to ensure adequate representation of the interests of all the provinces of India in a way that will make them all feel that the University is theirs and not of a particular province or of the representatives of a particular interest or school of thought. I can only pray that as it has been the glory of Aligarh in the past to be synonymous for certain manly qualities of character and culture, so may the alumni of the Mahomedan University stand for all that is fine and noble in cultured manhood.

WOMEN'S EDUCATION.

I now come to the all important question of the education of our women. It is perhaps unnecessary for me to remind you how interdependent are all the various stages of instruction and how limited in their effects. It is impossible to hope for any progress in University education without real progress in Secondary which in its turn cannot advance until primary education has reached a considerable stage of development. But no education in any stage can be fully fruitful unless and until it is helped by a proper healthy training of the child in its home; it is useless to expect much from schools if parents use them simply as means of saving themselves the trouble of looking after their children at home.

I have read with pleasure in the Madras reports that female education is making praiseworthy progress in your Presidency. In the Report for 1914, it was noted that in two years the number of school-going girls of our community had been doubled and in 1915 there was a further increase. In secondary schools in 1914 there were 14 girls; in 1915 the number was 31. There is one question however that I would like to ask with regard to these girls, and that is, how many of them are receiving an education which will ensure the continuance of their interest in reading when they leave school and after they become involved in domestic affairs. I would in this connection like to read out to you the impressive words of Dr. Wachtolz quoted in the Special Educational Studies of the English

Board of Education in the volume on German education:—"Let us not forget that the most pressing necessity is not found in Universities for women, nor in the participation of women in the scientific labours of the time, nor in the opening of higher professions for women but in the great and extensive education of the millions of girls—indeed for the education of the mothers of the coming generations." These words "the mothers of the coming generations" are fraught with a deep and solemn import, and remind us of the great and heavy obligation that rests upon us in this regard, for the future will be much more enlightened than the present, and much greater preparation is therefore necessary for those that will be the mothers of that future. If we fail in this duty, we shall be thrown back in the path of progress with an ever-increasing velocity. The problem before us is a difficult one, and although there is a great deal of talk in every province of India about women's education, yet I have come across but few deliberate and thoughtful discussions of the subject or any concerted efforts to start practical action. In this connection, I would draw attention to the efforts of Her Highness, the Begum of Bhopal, to whom so much is due, and who has invited a public discussion of a curriculum for girls published by her—an invitation which I am sorry to say has not met with sufficient response. I trust this Conference will be able to establish committees in different parts of the province who will consider what curriculum for Mahomedan girls is suitable which will develop their intellect and yet enhance their refinement and grace; how far the scheme of studies for them should be the same as, or different from that for boys; whether girls should be encouraged for the University examinations; what are the best means of obtaining suitable teachers and ensuring increased attendance of girls in schools. In this way, I hope that most of the difficulties that stand in the way of an adequate diffusion of education among our girls will be removed and I trust that in these efforts they will be helped by those educated ladies belonging to our community who, I am sure, are ever ready to work for their less fortunate sisters. In this connection may I venture upon a suggestion? I see so many earnest young faces around me. Is it too much to

ask each one of them to take a vow to himself that he will see that at least one person of the other sex, whether it be his wife, or daughter or sister is educated. Let me assure him that he will thereby be laying to himself a source of true and pure happiness in the home to which nothing can compare and at the same time add to the economic, intellectual and moral strength of his community. Before I close this subject I would like to draw your attention to what Dr. Lungen of Frankfurt says:—"It is our duty to regard a woman,—not merely as a woman, the helpmate of man, the mother of children, the worker, perhaps driven by hard necessity to self-support—but has a *human being*, with the same rights as other human beings. We all believe that a young man, whether rich or poor, whether intended for a profession or not, has imposed upon him the noble and sacred duty of cultivating to the utmost perfection those gifts of the intellect with which nature has endowed him so that he may approach as nearly as may be to the ideal of humanity. Now, I ask, what right have we, men, to realise a girl from this noble and sacred duty? Why, on the contrary, should we render the fulfilment of it difficult, if not impossible for her? Is it not as if we lopped the topmost part of a beautiful tree which was striving towards the sunlight? Are we not binding down in chains of spiritual slavery a large part of the human race? Are we not cruelly withholding from woman the noblest, highest good—the possession of spiritual freedom? * * * "Let us now begin to pay the debt of centuries. To the grace and personal charm of women let us add the charm of a trained intelligence, let us remove the bandage from their eyes and lead them to the fountain of knowledge, that they, too, may have their share in the gathered wisdom of ages, that they may despise empty frivolity and idle chatter and may learn to know the highest and the most inspiring of all human pleasures—joys of mental achievements."

LIBRARIES.

So far, I have touched upon education as imparted in regular scholastic institutions. I now, come to an instrument of education which in my opinion is equally if not more potent, especially for those

who have passed the stage or the age of regular scholastic training. I refer to the establishment of libraries. It will be surprising to know what a small amount—not more perhaps than Rs. 500—is sufficient to provide a library of the best literature available in Urdu and in English. It should be our endeavour to make every elementary school a nucleus of primary education for our children and of culture to their parents. How many instances there are of men who with the slender foundation of the teaching they had received in a primary school have, by means of libraries, built up for themselves a culture that has made them great and good men, more educated in the real sense of the term than many a holder of high University degrees.

In this connection, may I venture to give a small practical hint which if followed will, I believe, be a great help towards the gradual establishment of small but efficient libraries all over your Presidency. Cannot the members of our community on occasions of festivities such as those of marriage, try to perpetuate the occasion by the gift of small libraries to their localities and thus provide a source of pleasure and profit to their own and succeeding generations?

TYPE

I would now invite attention to a matter which although not new, yet has not of late years engaged our attention to the extent that in my opinion its importance deserves. Amongst the many signs of the almost prophetic insight of Sir Syed Ahmed into the basic problems of our intellectual advancement, was the emphasis he laid on converting the printing of Urdu books from a lithographic to a typographic basis. He believed and rightly, that one of the difficulties in the way of the diffusion of Urdu literature was a proper Urdu type, and as in all other things, he lost no time in practically carrying out what he wanted to preach. You know that the Aligarh Institute Gazette which he founded is still printed in type. His magazine which has had so great an effect in reforming the ideas of Moslems "Tabzib-ul-Akhlaq" was printed in type, and all those works of his for the printing of which he was responsible, were in Urdu type. I am glad to say that His Highness the Nizam, to whom the Mussalmans of India in all parts of the country are under

so many obligations, has added yet another by ordering His Government to undertake a solution of this problem with the resources at their command and they have decided upon giving currency to a beautiful Naskh type, on the ground that it is much better for the eyes and also because it is practically identical with the Arabic script with which every Mahomedan boy is familiar through the reading of the Koran. Moreover, it presents the fewest difficulties to the type founder. It must not thereby be understood that the Nastaliq calligraphy will in any way be given up. It will still continue to be used in cursory writing which in Urdu as in all other languages must be different from the printed script and thus will continue to be a monument of our artistic taste. I would appeal to the Mahomedans of South India to encourage this movement if they want to have cheap Urdu books which throw the least strain on the children's eye in reading Urdu and the Koran, and if they desire to give Urdu all the advantages that modern mechanical contrivances such as the typewriter and the monotype give to the scripts of other languages.

LANGUAGE.

I now come to a suggestion, of the utility and the practicability of which I am getting more and more convinced day by day, and that is, that just exactly as in all Missionary schools half an hour is devoted to the study of the Bible, just as in Hindu institutions half an hour is devoted to the study of the Gita, Arabic in which our religion has been enshrined and which has moulded the standard of our taste, should be studied for half an hour every day in every Islamic School from the lowest standard to the highest. I have been informed by those competent to form an opinion on the subject that with a right method (such as has been adopted in the grammar prepared by Principal Hamid-ud-deen of the Hyderabad Darul Ulum), the results of such a study will be to give a student by the time he finishes his education, a fair practical knowledge of the language, and in any case, it will equip him with a correct understanding of the great ethical passages which are the current coin in every Mahomedan assembly, and will enable him to remain true to that culture which has made a special contribution to the common civilisation of India and thus make him

acceptable to the Mussalman masses, whom it must be the desire of every educated Mahomedan to influence aright. It is a very small amount of time that is being asked for and yet the cumulative effect of it at the end of the many years spent in school and even college, will be to make him acquainted with one of the classical languages of the world.

In the days gone by, before the advent of the English, the Mahomedans of Madras were noted in the Deccan for their proficiency in Persian, and when Persian ceased to be the official language, they turned their eyes towards a language in the development of the literature of which they had played a not unimportant part in the past. One of the earlier forms of Urdu as spoken to-day originated in the Deccan and was known by the name of "Dakhanees." Several great and distinguished writers at that time composed their works in that language and they were inhabitants of the Deccan. The Urdu of to-day, too is taking an increasing hold on the Mahomedans of Southern India leading everywhere to a demand for Urdu teaching and Urdu teachers and this, I think, is due to the fact that Urdu has gradually become the common language ensuring a common bond amongst the Mahomedans scattered over the different parts of the peninsula from Karachi to Rangoon and from Peshawar to Cape Comorin. It must not at the same time be forgotten that Urdu is an Aryan language and really symbolizes the union of Hindus and Mussalmans whom accident has thrown together in a common land engaged side by side for centuries in common pursuits and swayed by common interests.

Here I must raise one note of warning lest our enthusiasm for Urdu lead us astray by making us neglect the importance of possessing a thorough knowledge of local vernaculars. I am glad to find that the authorities responsible for the management of the Vaniyambadi High School have realized this danger and enforced their teaching, I can conceive of no greater calamity to the Mahomedans here than that they should remain ignorant of the vernacular of the place in which they have spent their lives, and thus estrange themselves from the neighbours with whom they must come in daily contact in social intercourse and in business. Nothing do I deprecate more than the association of any vernacular

with any particular faith. Are not the points of cleavage between the different communities in India already too many in all conscience for another to be added, so potent in creating bitterness? Consider what a tremendous accession of sympathy with us on the part of the Hindus would be caused by a Mussalman Tamil or Telugu writer whose songs had the vogue in Southern India that for instance Sir Rabindranath Tagore's songs have in Bengal. Would it not alter very materially the whole attitude of the Hindus towards the Mussalmans? Is it not that one of the most powerful causes operating in favour of the enthusiastic affection that we Indians have towards the English is our knowledge of their wonderful literature, and the influence that Shakespeare and Bacon, Burke and Browning have had on us in the most impressionable period of our lives? My reason for emphasizing this question of languages is that I want the Mahomedans to be true to themselves, true to their religion, and true to their country, taking a legitimate pride in the greatness and the purity of both and co-operating with their co-religionists and with the followers of other faiths in obtaining for her an honourable place in the comity of nations.

In this connection, I trust you will not consider it out of place if I were to ask you to weigh well the necessity of checking any tendency of an undue gravitation towards Western manners and modes of life. It appears to me that their entrance in many of the strata of our society is leading us to less economic habits and this in spite of the fact that the one great thing necessary for Mussalmans is to become really economic units of society. Remember what Lafcadio Hearn says in his illuminating book "Out of the East" about Japan: "What she has done and is doing would require volumes even to mention; suffice it to say that she has selected and adopted the best of everything represented by our industries, by our applied science, by our economic, financial and legal experience, availing herself in every case of the highest results only and invariably shaping her acquisition to meet her own needs. But she has not adopted Western dress, Western habits of life, Western architecture or Western Religion since the introduction of any of these would have diminished instead of augmenting her force."

With regard to dress he says: Foreign Civil dress has been adopted by the Japanese official world but only to be worn during office hours in buildings of Western construction furnished with modern desks, chairs, &c." "A highly educated Japanese once actually observed to a friend of mine: 'We have been temporarily adopting Western dress only as certain animals take on particular colors at particular seasons for protective reasons'."

CO-OPERATION.

I now come to refer to a movement which although not ostensibly connected with education is in effect most intimately connected with it and is one upon the success of which progress of our country will in my opinion ultimately depend. It is a movement which was outlined years ago in my own Presidency by Sir David Wedderburn, but the credit for making it a living problem belongs to your Presidency, to Sir Frederick Nicholson whose classic report has now happily been made again available for us, I mean Co-operation. All of you who have been students of political economy must have been fixed as I was 30 years ago when reading of the work of Riffeisen and the development of the Rochdale Pioneers from a society with a capital just sufficient to buy a chest of tea and a hogshead of sugar into a huge concern with shops and factories and libraries and meeting halls of its own, and must have longed like me for an extension of the movement to India for relieving the indebtedness of her vast ryot population. Well, these hopes are now being realized. The Co-operative movement is extending by leaps and bounds throughout India. In my own State, His Highness' Government have recently been fortunate in acquiring the services of an officer from the Punjab, who, I am sure will be able to extend the movement in the Hyderabad State in the way in which it has been spread all over the Punjab. The other day I put to him the question whether he had anything to show in the Punjab similar to the work of the Rochdale Pioneers and he gave me a most interesting account of a Society which was founded in the Jalandhar District in 1906 with a capital of Rs. 11 furnished by 11 poor Arians (gardeners). This Society three years later, in 1909, had a capital of Rs. 18,000 and in 1913 of three lakhs. Though its members could not borrow ten years ago

even at the rate of one per cent, they have now a cash credit of Rs. 30,000 with the Bank of Bengal and were able to obtain only the other day an advance from the Government of Rs. 20,000 at six per cent. The moving spirit of this Society is one Hafiz Nur Mahomed, a young Maulavi only 33 years of age. I wish that just as you have for Education amongst the Mussalmans a Quraishi at Vaniyambadi, a Yakub Hasan in Madras and a Kalami for Mysore, you may have a Hafiz Nur Mahomed for Co-operation amongst you. In this trading and commercial centre like Vaniyambadi I trust that the attention that I have drawn to this movement will not have been in vain.

TECHNICAL EDUCATION.

You will be surprised that I have not said so far any word about technical or commercial or industrial education. My silence has been deliberate. In the first place, it does not appear that this education has any special problems for Mahomedans as distinguished from other communities; secondly, a strong Commission is at present investigating the problems connected with it in all their bearings and it would be impertinent on my part, even if I was qualified, to give expression to any views on the subject. All I would ask you is to see that the spread of literacy amongst you does not mean any weakening of the commercial and trading spirit to which the Mahomedans of the South owe whatever strength they have. I am glad to note that the Vaniyambadi High School has Commercial courses in its curriculum. I would ask the traders and commercial men around me to give their helping hand in a way that will be more effectual than any education or subscription and that is to take up as apprentices and try to start on business young promising active Mahomedan boys that may come out of your schools.

CONCLUSION.

The position of the Mussalmans in India is one of peculiar delicacy and difficulty. It requires on the one hand a spirit of enthusiastic loyalty towards the Government, and on the other a feeling of affectionate brotherhood towards the other communities with whom they live side by side. No human system of Government can ever be perfect, and whatever shortcomings there might be in British rule in India, let us never forget the innumerable benefits conferred by the justice and purity of its administration, and the diffusion of light and

learning among all classes of the people that has followed in its wake. Let there be therefore a complete trust on our part in the Government of our country, and should ever anything happen, likely to endanger that trust, let us remember the peculiar difficulties that beset its path on account of a small minority having to govern a population composed of different creeds with different ideals and in varying stages of progress, and putting ourselves in their place, let us ask whether we in the past have done better or would have done better if placed under similar conditions. At the same time, it should not be forgotten what great and incalculable harm might be done if there was a feeling amongst the population that they were distrusted. For distrust begets distrust. Mussalmans have given ample proof of their loyalty and devotion in the past, and I should like to dwell especially on the noble response that they have lately in common with the other communities, made to the call of civic duty, notwithstanding the pressure, heavy and unforeseen, to which they have been subjected by a course of events, on which it is not necessary for me to dwell here. I have no doubt that in the inevitable readjustments that will come after this war, we shall find that this response has not been made in vain.

I would ask you also to bear in mind that the Government can achieve complete success in its work of securing the happiness of the people only when all the different communities are welded together by common ties of affection and brotherhood and when, giving up their petty quarrels they have learnt to concentrate their energies in co-operation with one another, on the great and noble task of raising their mother-land to a position of self respect amongst the countries of the world. Is it possible that we children of the same mother, nourished by the same earth, breathing the same air, can live happy and prosperous, nay live at all, if we fight amongst ourselves? The salvation of our country, our very existence depends upon the suppression of these rivalries and the union of us all into a common people united with one heart, working towards a common goal. It is a matter of peculiar pleasure to me to see, and I congratulate you upon the fact, that there is no Hindu-Mahomedan problem within your borders, and that the traditional feeling of the two great communities of India to each other in this Presidency is one of brotherliness and co-operation.

May it not be that the relatively high position of the Mahomedans in the statistics of Education here is due to this fact? It is my prayer that this feeling may continue and shape their intercourse and mould their aspirations for all time to come for the good and glory of our motherland.

The realization of these ideals is possible through one and one way alone—Right Education. Illiteracy has now come to mean not only ignorance but an evil, which carries with it loss of prosperity, loss of manners, and morals, nay loss of manhood itself. Let us all, therefore, take a vow to fight the demon of ignorance with every weapon at our command and to spread the light of learning in every corner of this vast continent, of which we are proud to own ourselves the sons.

PROCEEDINGS.

Mr. A. Hydari, the President-elect of the Muhammadan Educational Conference of Southern India, arrived at Vaniyambadi on the night of Friday the 27th ultimo, accompanied by Mrs. Hydari, Mr. Syed Rose Masud and a number of Conference members from Madras. In the morning at 7 o'clock a grand reception was accorded to him by the leading members of the Reception Committee. At 12-15 P.M. Mr. Hydari drove to the Madras-e-Islamiah where he was received by the Principal, Mr. Mahomed Ibrahim Quarishi. As there was a holiday for the school Mr. Hydari only inspected various classrooms and the Laboratory and the portion of the building under construction. From the school he returned to his bungalow, and at 12-15 P.M. he came to the Conference Pandal where he was given a most enthusiastic ovation.

The first sittings of the Conference commenced precisely at 2-30 P.M. The Pandal which was specially erected for the Conference was completely packed. Over three thousand members were present including the prominent gentlemen of the district and from outside.

The proceedings began by Moulvi Kutbudeen Ahmad Perer reciting a few verses from the Kuran, the whole audience standing.

Haji Moulvi Ziaudeen Sahab, the Chairman of Reception Committee, then welcomed the President in Urdu.

The second sitting of the Conference began by a recitation from the Kuran and also by a nasam by Iqbal Sahab of Bangalore.

The Conference then discussed the several resolutions the first of which was moved by the Hon. Mr. Yakub Hasan, which ran thus:—"That this Conference expresses its satisfaction at the appointment of a Professor of Arabic in the Presidency College, Madras, and hopes that steps will soon be taken to get the College affiliated for B. A. Honours in Arabic."

The second Resolution that this Conference strongly support the memorial of the Muhammadan Educational Association of Southern India dated September 1916, praying for the reservation of a certain number of seats for the Mussalman students in Colleges and for opening the Intermediate classes at the Madras-e-Azam, Madras, was moved by Mr. A. Hameed Hasan, B.A., LL.B., who enumerated the various difficulties in the way of a Mussalman student being admitted into the colleges and pointed out that the Government should kindly consider over this question and offer facilities to the Mussalman students by opening Intermediate classes at the Madras-e-Azam, Madras. It was seconded by Mr. Abdur Rahim, B.A., LL.B., and supported by Mahomed Hyath Sahab, B.A., and carried.

Moulvi Aziz Kahan Sahab, B.A., of the Hyderabad Education Department moved the third resolution which ran thus:—

That this Conference tenders its grateful thanks to the Government of Madras for establishing Incomplete Secondary Schools in Georgetown, Madras, and in Vellore and for their proposal to establish a third school at Trichinopoly and respectfully urges on the attention of the Government and the people a great need for establishing similar schools at Ambur, Mailvesharam, Guntur, Bellary, Ellore, Kurnool, Malapuram, Cannanore and Bangalore C. & M. Station. The resolution was seconded by Mahomed Shammood Sahab and supported by Mr. Abu Mahomed of Cochin, C. Abdul Hakeem Sahab, Moulvi Khassim Sahab of Ambur, Nawab Ghulam Ahmed Sahab Kalami and the Hon. Mr. Yakub Hasan. The resolution was carried.

SECOND DAY'S PROCEEDINGS.

The Conference having assembled on Sunday, the 29th ultimo, the Secretary Mr. Ghulam Ahmed Kalami read his report in Urdu in which he gave a short account of the activities of the Conference and appealed to his co-religionists for their active sympathy and support. After the

report was read, Mr. Hameed Hasan moved the following resolution that "having regard to the fact that the increase in the number of Mussalman students in the College classes is not commensurate with the advance of higher education in the country, this Conference is of opinion that strenuous efforts be made by the Muslim Associations and the Anjuman in the mofussil to advance higher education amongst the community by means of scholarships." The proposition was seconded by Moulana Abdus Subhan Sahib and carried.

The next resolution that "while appreciating the recent increase in the Mussalman Inspectorate, this Conference is of opinion that the present number of Muhammadan Sub Assistants and Supervisors is still inadequate to inspect the existing schools, popularise education in the community and start new schools wherever necessary, and accordingly requests the Government to make a further increase. This Conference further requests the Government to appoint a separate Inspector in the Indian Educational Service to direct and control Muhammadan education as in Bengal" was moved by Ghulam Ahmed Kalami. Md. Shammood supported the resolution and it was carried.

The next resolution "that this Conference is of opinion that the special Khandani scholarships should be adequately increased in number and in value and should be extended to University education" was moved by Mahomed Abdul Khadir Sahab. The resolution after being duly seconded and supported was carried.

Khan Bahadur Mahomed Habeebullah Sahab then moved the resolution "that this Conference reiterates its opinion that out of the annual recurring grant assigned by the Government of India towards the extension of Elementary education in the Presidency, a separate allotment be provided for starting and improving Muhammadan schools as is being done in the case of European schools." Mr. Waziruddeen of Guntur seconded it, and it was carried.

The next resolution was to invite the Nathvathul-Ulma, Lucknow, to hold its next annual gathering in Madras. As there were a large number of speakers on this resolution, the President called upon Mr. F. H. Richards, M.A., I.C.S., to deliver his

lecture on 'Muslim Education in North Arcot.' Mr. Richards then delivered a very interesting lecture.

After Mr. Richards had concluded, the Conference adjourned for lunch.

The Conference assembled at 3 o'clock. The Nathvathul-Ulma resolution was passed.

The next important resolution moved by Mr. Abdur Rahim, B.A., LL.B. Inspector of Schools, Warangal, follows:—

In the opinion of this Conference the Makthaba play an useful part in the Muslim education and it is desirable that these indigenous institutions be fostered and brought under Government aid and competent Persian and Arabic scholars should be appointed to inspect them and to secure their improvement. Keen excitement prevailed over the discussion of an amendment, moved by Moulvi Karimulah Sahab who aimed at preventing these religious institutions to be brought under Government control as that would eventually lead to unnecessary interference with the curricula of their study. The amendment suggested that instead of a Government Inspecting Agency it would be more helpful if a Muhammadan Inspector be appointed by the Conference itself to look after the schools. The resolution as amended was carried. Among the other resolutions that were discussed the important were those that related to a more liberal allotment of Government scholarships, the increase of salary of Mussalman Sub-Assistants, the teaching of Urdu in Schools largely attended by Mussalman pupils, and female education.

After the resolutions were passed Mr. Anwar Ahmed of Aligarh spoke on 'The Study of Islam.' The Conference adjourned at 5 o'clock to reassemble at 8-30 P.M.

The night sitting of the Conference was very largely attended as Mr. Syed Ross Masud, M.A., Bar-at-Law, the Director of Public Instruction at Hyderabad, was to speak on the occasion.

MR. MASUD'S SPEECH.

Mr. Syed Ross Masud who on rising was given a magnificent ovation then delivered his lecture on "Our Young Men,"

The Conference reassembled on Monday the 30th ultimo, precisely at 10.30 A.M., when a lecture was delivered by Mr. Yakub Hasan on "Nationality."

Moulvi Abdul Haque, B.A., B.L., Secretary of the All-India Urdu Conference, was the next speaker, who in an eloquent address advocated the cause of Urdu.

After Mr. Haque finished his lecture, a resolution was passed which urged the necessity of encouraging Arabic education among the Muhammadans by instituting decent scholarships. A number of Moulvies supported this resolution. The subject being fully discussed, a proposal was made to collect funds for the purpose. A subscription list was then opened and scholarships of the monthly value of Rs. 250 were promised on the spot and the fund was raised. Mr. Hydari, the President of the Conference, Some of the prominent subscribers made it a condition of their award that the scholarships should go to the native students of Vaniyambadi only but after a little consideration it was decided that in default of any Vaniyambadians the scholarships should be awarded to outsiders.

The Conference adjourned for lunch and prayer.

The Conference having resumed its sittings the following resolution was passed amid acclamation:—

That this Conference greatly appreciates the patriotism and generosity of the Mussalmans of Vaniyambadi for having carried out the resolution of this body regarding the establishment of National Schools to give the Muslim youth secular education side by side with religious education and raised the Madrasa-e-Islamiah to the status of a fully-equipped High School and notes with pleasure that the institution has already become a great Muhammadan educational centre attracting students from all parts of Southern India. This Conference deems it the duty of all Muslims belonging to the various Provinces and Native States in the South to extend to the Madrasa their material and moral help so as to enable its management to raise it to the status of an Islamic College.

Mr. Humayun Hussain, District Judge, Mysore, Moulvi Ziauddin Sahab and Moulana Abdus Subhan

Sahab spoke on the resolution. A few minor resolutions having been passed the Conference adjourned to reassemble at 6 P.M.

The Conference reassembled at 6.30 P.M., when at the instance of Malang Ahmad Badsha Sahab, B.A., a Standing Committee was formed with the Hon'ble Mr. Justice Abdur Rahim as President and Hajl Moulvi Ziauddin Ahmed Sahab and Ghulam Ahmad Sahab Kalami as Secretaries.

Mr. Kalami then proposed a vote of thanks to Mr. Hydari and eulogised his qualities of head and heart and his strong sympathy with their movements.

The Hon'ble Mr. Yakub Hasan then proposed a vote of thanks to the various visitors and associated it with the name of Mr. Syad Rose Masud, Director of Public Instruction, Hyderabad.

Mr. Masud who rose amidst loud applause thanked in a suitable speech the Reception Committee on behalf of himself and his brother visitors. In the end he appealed to them to raise the Vaniyambadi School to the status of a College. It was in his opinion that a College Fund ought to be started for this purpose to which he would be most glad to subscribe Rs. 200. This announcement which came quite unawares was most cheerfully received and amidst a scene of high enthusiasm lasting for over an hour and an half, a sum of Rs. 55,000 was subscribed on the spot.

Mr. Masud thanked the subscribers for having taken up his suggestions with such enthusiasm. Mr. Hydari then delivered his concluding speech in Urdu.

MR. HYDARI'S CONCLUDING REMARKS.

GENTLEMEN.—When through your exceeding kindness I was invited to preside over this Conference, I little dreamt that this session would be so grand and that its organisation would be so perfect. The fact is that the promptitude and willingness, the earnestness and enthusiasm which you displayed in holding this Conference demonstrate your practical genius on the one hand and your hearty-heartedness on the other.

I have seen a great many great assemblies and Conferences organised by big people but never

look at this gathering organised in a small town like Vaniyambadi I cannot but express my surprise and sincere admiration. I was of course quite aware of your enlightenment and love of education of which your High School with its Boarding House is a living evidence. But when I learn that you have made similar arrangements for the education of your girls, and my wife inspected these yesterday of which she gave me a detailed account—my respect for your work increased tenfold.

You have set a very high example to your countrymen and have practically proved how much the people of even an ordinary town can do for their children and the coming generations, provided of course they sincerely valued the benefits of education. The splendid success of this Conference is the result of your sympathies and enthusiasm. Useful and practical proposals were put forward and fully discussed. I hope that we shall carry out all the resolutions which we have passed unanimously. I have great hopes of the practical work resulting from this Conference, for this appears to me the characteristic feature of all your activities. The Proceedings of this morning have afforded further proofs thereof. I cannot sufficiently express my feelings of gratitude for your kindness and hospitality and shall always remember with pride and pleasure the days spent here at Vaniyambadi on this auspicious occasion. We all owe our best thanks to the Trustees of the Vaniyambadi Mahomedan Educational Society and to the Reception Committee of this Conference for the very excellent manner in which they have discharged their difficult and arduous duties, likewise I desire to acknowledge the great services which the youthful volunteers have rendered to this Conference with willingness, zeal and enthusiasm. Without such volunteers the organisation of this Conference would have been imperfect. These young men are all students of the Madrasa-e-Islamiah. The way in which they have performed their duties speaks well of the excellent training they have received. Such indeed is the training which will be useful not only to their own selves but also to the entire community and the country. It is from amongst these young men that workers will rise who will keep alive such national movements as this school and this Conference. I

have every hope and my heart bears witness that the High School will one day become an Islamic College and will grow to be a blessing unto the Mussalmans of Southern India. It must be the aim of this Conference to help the Madrasa to realise this ideal and to spread learning and enlightenment all over the South.

Gentlemen,—A few moments more and we shall part. Remember, however, that at this Conference we have undertaken new duties and additional responsibilities, in the discharge of which will depend the well being of our own selves and the community at large. I now wish you good-bye, and commend your aspirations and achievements to Him unto whose hands rest our progress, prosperity, life and salvation.

Reviews and Notices.

PRACTICAL MATHEMATICS FOR TECHNICAL STUDENTS, PART II. BY USHERWOOD AND TRIMBLE, (MACMILLAN AND CO., 1916). 7s. 6d.

The First Part of this work was reviewed in the March number of this journal. The authors have fulfilled their promise to bring out the Second Part which must have been eagerly awaited for by those who had read the First Part. This second part has been written, as stated by the authors in the preface, with the special view of meeting the needs of students of Engineering and other branches of Applied Science. The authors have not presupposed a knowledge of higher mathematical analysis on the part of these students. They have accordingly given a brief account of the more important topics in Algebra and Plane Trigonometry, and devoted a considerable portion of the book to the calculus. A rigorous treatment of the theorems in these subjects is not attempted, as the authors are of opinion that the students for whom this book is intended "are not so much concerned with the proofs of mathematical facts and formulæ as with their applications," though however, they have not resisted the temptation to give elaborate proofs of such things as the graphical method of finding the imaginary roots of quadratic and cubic equations, for which there is no practical application. The book abounds with examples, fully worked out, of the applications of higher mathematics to practical problems in the mechanics of solids and fluids, thermodynamics, electricity, etc. Graphical methods of solution are given wherever possible. There

is a good chapter on Harmonic Analysis, containing an account of Harrison's Graphical Method, and Perry's Tabular Method of determining the co-efficients in a Fourier's Series. Special attention is devoted to Vector Analysis. The principles of the Differential and Integral Calculus have been applied to Vectors and Scalars, and this has enabled the authors to give a short account of the theorems of Divergence and Version, with applications to electro-magnetic problems. The collections of exercises are mostly utilitarian and very good. A special feature of the four-figure Mathematical Tables appended to the book is the sub-division of an angle into tenths and hundredths of a degree instead of the usual division into minutes and seconds.

NOTES ON SCHOOL EQUIPMENT, BY J. NELSON FRASER, M.A. (LONGMANS, GREEN & CO.) 1 Rs.

These notes are of great practical value, to Headmasters especially. A sound organisation is the foremost condition of good order and efficient instruction. Proper furniture and fittings that afford convenient accommodation help in the maintenance of discipline, while libraries, museums, maps, charts, the blackboard and other apparatus and appliances are effective aids to teaching. People readily recognise the value of these, but hardly evince any real interest in them; the details of furniture are regarded as mechanical, not worth much attention, and we do not often find a school library or museum equipped with much discrimination, or with due regard to the interests of the pupils. It is only teachers that have given any serious attention to these matters that will be able to appreciate the value of the notes and can have an idea of the time and labour that they must have cost the author.

SCIENTIFIC MANAGEMENT IN EDUCATION, BY J. M. RICE, M.D. (GEORGE G. HARRAP & CO.) 3s. 6d. net.

In these days when the struggle for existence is becoming more and more keen, and the poorer classes of parents are obliged to withdraw their children from school at the earliest possible opportunity, it is well worth considering in all seriousness, how far the work done in our elementary schools is profitable, and whether there is an adequate return in results for the amount of time and energy actually spent. Imperative as is the need for a careful consideration of this

important practical question, it has not been seriously undertaken by any body, and our notions to-day are not any more definite than they might have been years ago. The old rut only grows deeper from year to year and we find it hard to get out of our grooves. Dr. Rice's work is among the foremost of its kind, being a scientific inductive inquiry into all aspects of this question. He has carried on investigations on a very elaborate scale regarding the conditions of school work,—the causes of its successes and its failures; and his tests have been extended over several thousands of pupils at numerous elementary schools in various parts of America.

Dr. Rice's book is a collection of twelve essays, contributed to the public press from time to time, based upon these extensive investigations. The great merit of the book consists in its opposing facts to opinions; and teachers of the traditional type will find most of their fond beliefs rudely shaken by the author's logical conclusions. Among the positions to which the author has been led by a careful sifting of the evidence before him may be mentioned,—there is no direct relation between the time devoted to a subject and the results, nor between the size of the classes and the results, some of the largest classes showing the best work and some of the smallest showing the poorest; differences in results cannot be accounted for, as is usually imagined, by differences in heredity, nationality and environment, not even by differences in the teachers' scholarship or knowledge of pedagogical theory. It has, further, been definitely ascertained that the time given to a subject beyond a certain point is not rewarded by an additional return, and that all the benefit that can be had could be obtained in about two hours a day so that the available time might spread over a wider range of subjects. It is high time that we revised our vague opinions in the light of the author's conclusions, and adjusted the conditions of our elementary schools to suit the requirements of the progressive spirit of the present day.

ENGLISH LITERATURE IN PROSE AND VERSE—FROM COWPER TO LANDOR: (GEORGE G. HARRAP & CO.) 1s. 3d.

The present volume is chronologically the fourth of the series of literary anthologies, "English Literature in Prose and Verse." Cowper was thirteen years old when Pope died and Landor was nine when Dr. Johnson died. The present volume covers that division of time in

English literary history which enables it to serve as an excellent guide to the study of practically the last phase of English literature generally described as that of the "Romantic Revival." One difficulty to comprehend the meaning of this last wave of change, for the ordinary student, is the confusion of the chronology of the successive schools of literature. Quite a mass of what we value now as signifying the romantic outburst had been written in Johnson's lifetime though Johnson stands as the most uncompromising champion of neo-classic literature. It becomes the task of the literary student to make clear for himself the little, yet well-defined, rills of romanticism signified by names like Burns and Blake, taking their rise among the misty hills of neo-classicism even by the middle of the eighteenth century, to join yet later the broad stream that was to flow so steadily and in such absolute majesty by the beginning of the next century when the horizon was illuminated with stars like Byron and Shelley.

The advice is often sincerely sought by students, of those who direct English studies in the colleges of this country, as to the line of reading calculated to develop their literary faculty. The students are told in the first place that the reading of literary histories by themselves cannot be of any avail. The only means is to make acquaintance with as many original works of literature as possible. This advice is not followed up easily as the student faces the further difficulty of the choice of books. An anthology like the present one recommends itself to such a student for more reasons than one. The present volume contains very judiciously selected specimens of the period covered by it. Crabbe's "The Village," Wordsworth's "Ode on Immortality," Coleridge's "Ancient Mariner," Southey's "Kehama," Shelley's "Adonais" and "Prometheus Unbound," and Keats's "Hyperion" are all fitly represented in the present volume. It has also the good feature of representing the variety of literary forms exercised in during the period. The letters of Cowper, the comedy of Sheridan, the novel of Scott and Jane Austen, the criticism of Hazlitt and Coleridge, and the essays of Elia are all happily in evidence in the present book. While presenting in itself a very comprehensive selection of the literature of the romantic revival, the present volume will, we have no doubt, succeed as well in stimulating the reader to make a much broader and deeper acquaintance with the works of the period.

SELECTIONS FROM CARRYLE, EDITED BY HEMINGWAY AND SEYMOUR. (D. C. HEATH & CO.) 2s. 6d.

This is a handy book of selections from the prose of Carlyle. They are taken from three of his writings which may be regarded as landmarks in his works: "Sartor Resartus," "The French Revolution," and "Past and Present." The Introduction gives a short account of each of these works. We do not know why the editors did not think of prefixing as well a brief biographical memoir of Carlyle and an account of all his principal writings. The present volume fulfils, however, the task of offering to the student a valuable and representative reading from Carlyle. "The French Revolution," a work oftener praised than read is fortunately extracted from in the present book. The work is just another proof of the profound influence that the Revolution had on the writers of the romantic period. It serves as well for the expression of Carlyle's instinct for hero-worship and of his own theory of history.

Carlyle occupies such a unique place in the growth of English prose that a selection from his works is very useful to the student to help him to form a proper estimate of the peculiar genius of Carlyle as well as of his contribution to the growth of English prose in general.

SAMUEL TAYLOR COLERIDGE (ENGLISH ROMANTIC POETS) EDITED BY A. H. THOMPSON, M.A., F.S.A. (CAMBRIDGE UNIVERSITY PRESS). 2s. net.

The publication of the "Lyrical Ballads" in 1798 is an unforgettable event in English literary history. Yet Coleridge whose "Ancient Mariner" appeared in that volume was to have a much greater influence on the outburst of the romantic revival in poetry than that of his own best poems. More than one poet of the age owed the kindling of his poetic genius to Coleridge. Poetry was almost an accidental and fragmentary product of his intellectual activities which embraced the farthest depths of human thinking and imagination. He produced but little poetry relative to the magnitude of his genius and even that is very unequal in quality. The "Ancient Mariner," "Christabel," and "Kubla Khan" are everything to the literary student as the rest of Coleridge's work is almost of no importance at all.

The book before us which collects the best poems of Coleridge has a critical introduction and explanatory notes at the end which increase its usefulness very much to the student of literature.

REPORT AND PRIZE LIST: ST. ALOYSIUS COLLEGE, MANGALORE.

Rev. C. Perazzi, S. J., Rector, has issued the annual report of the college for 1915-16. It gives the facts and figures connected with the last year's work of the institution and shows that the past efficiency has been steadily maintained.

MYSORE SOAP.

We have received samples of this soap. This is manufactured by the Mysore Soap Factory in the Indian Institute of Science, Hebbal. This soap is quite equal to the Sunlight Soap for washing linens and flannels. The local Agents are Messrs. M. Ramaswamy & Co., Triplicane.

Indian Educational Notes.

Board High School, Amalapuram.—Saturday and Sunday, the 18th and 19th instants, were gala-days being the occasion of the Annual Sports of the School. Much enthusiasm prevailed among the students. Taking advantage of the presence, in their midst, of Mr. A. G. King, B.A., I.C.S., the Sub-Divisional Officer, Rajahmundry, who is camping here, he was requested to preside on the occasion. As is usual with this kind-hearted and sympathetic gentleman, he readily consented. On Sunday, long before 2.30 p.m., the appointed hour, the sports ground was thronged with students and crowds of spectators. The elite of the town including officials and non-officials were also present and the school premises evinced a very lively sight. At 5.15 p.m. the sports were over and the prize-winners and the other students gathered round the dais to witness the award of prizes. Then Mr. King rose amidst cheers and made some observations. He was much pleased to see that the athletic sports were in such a state of progress and that the prizes were all met from the school funds without appealing for subscription to the public and congratulated the Headmaster and his staff on the success of the day's function.

Then Mrs. King very kindly handed away the prizes. The function was brought to a close with the usual vote of thanks to the Chairman, and the visitors proposed, in felicitous terms, by Mr. P. Venkatramayya, the First Assistant and the Games Superintendent of the School.

The Mathematics and Science Section of the Madras Teachers' Guild.—A meeting of the Section was held at 5.30 p.m. on the 20th November with Mr. P. V. Seshu Aiyar, B.A., L.T., in the chair. The discussion on 'The Teaching of Elementary Mathematics according to the S. S. L. C. Scheme' was continued, as desired at the previous meeting. Mr. K. P. Subramanya Aiyar opened the discussion for

the day; in the course of his speech he said, that according to the scheme the culture-value of Mathematics was being neglected, that as Theoretical Geometry had been thrown to the background and Mensuration and mechanical exercises made prominent, great intellectual deterioration had taken place and that consequently the argumentative powers of pupils were at a discount. Several gentlemen took part in the discussion, the majority being in favour of the S. S. L. C. syllabus and of the present methods adopted in the teaching of Elementary Mathematics. The chief arguments advanced against the syllabus were that the difference between calculation and proof was not understood by pupils, that the logical powers of pupils who did not learn Geometry and Algebra in the C. Group, were not well-developed, that Elementary Mathematics lessons were not interesting to pupils, however well they might be taught and that correlation was possible only after a certain amount of progress had been made in each mathematical subject. The arguments in favour of the syllabus were: (1) The culture-value of Mathematics was certainly attended to in the syllabus. (2) The syllabus had to suit a large number of pupils that left off their studies at the end of the S. S. L. C. course; and it was not consistent with the aim of the scheme to agitate for a greater prominence to Geometry. (3) Elementary Mathematics lessons especially in Arithmetic were uninteresting only on account of the language in which the lessons were taught; and pupils found questions interesting when they were translated into the vernacular. (4) Arithmetic, Geometry and Algebra should not be kept as water-tight compartments but should be correlated with one another.

The Chairman in his interesting speech said that the culture-value of Mathematics could be had even from practical every-day questions, and that old Geometry had not much of logical value. India had had too much of speculation. Modern mathematicians in England and America had to care for the practical side of the subject. The average student should be made to take interest in problems relating to real life. Approximation was not difficult if taught in the true spirit. It could not be definitely stated that there was an intellectual deterioration in students. The present syllabus was the syllabus that should be had; it was based on the syllabus that had been framed by the Section and approved by several other Teachers' Associations. The meeting was then dissolved with votes of thanks to the Chairman and the Opener of the discussion.

The Educational Review.

Reference was made in these columns to some of the retrograde provisions of the Patna University Bill and we are glad to see the citizens of Behar have resolved not to put up with the primitive constitution which has been sanctioned for their new academic body. The Behar Provincial Association which has recently come into existence to safeguard the civic rights of the people in the presidency has issued as the first of a series of political bulletins a pamphlet on the subject of the Patna University Bill with a view to focus public attention on the question. We have no doubt that with the persistent agitation of the people of the presidency, it will be possible to effect substantial modifications of the Bill, before it passes into law, as the Hon. Sir Sankaran Nair, who will stand sponsor to the Bill, will not be callous to the demands of public criticism and to the highest interests of the Indian people involved in the measure. We have in the present non-official members of the Imperial Council a set of stalwart champions of Indian interests and they can be expected to challenge every offensive provision of the Bill. It is very strange indeed that in this year of grace 1916, nearly sixty years after the inauguration of University Education in India, the Government could have evolved a constitution like that which has just been evolved for the Patna University, a constitution which

is far behind those of the existing Universities, and indeed very far behind that of the Hindu University which has just come into existence. The good people of Behar are therefore likely to feel humiliated, every time they compare their University with that of Calcutta on one side or of Benares and Allahabad on the other. It amounts to an unmerited slight on the people of the presidency, which must not be allowed to disfigure the Statute-book.

The Hindu University is fast assuming definite working shape, and some important meetings of the University have been held at the beginning of this month. The University Professors have been appointed, the Senate has been formed, the Syndicate has been elected and the Boards of Studies in the various subjects have also come into existence. Among the new additions to the staff of the College are the two well-known Indian scholars, Professor Jagadish Nath Sarkar and Dr. Radhakumud Mukherjee, appointed University Professors of History, besides Mr. P. Seshadri, appointed University Professor of English, the securing of whose services by the Hindu University authorities, we had the pleasure of announcing sometime back. It will interest readers in the Madras Presidency to know that Mr. P. Seshadri has also been elected to the Syndicate of the University and he is also Convener (corresponding to Chairman in the Madras University) of the Board

of Studies in English. The Hindu University authorities are expecting to get the necessary permission from the Imperial Government for starting work in July, in the present buildings, pending the construction of the new buildings on the new University grounds.

An interesting feature of the new Hindu University will be the association with its work of a number of distinguished scholars from various parts of India as Honorary Professors, the idea being that they should come down to Benares occasionally in the year, to deliver courses of lectures to the students. In the group we find the name of Lala Manohar Lal of the Punjab, the distinguished Economist who was for sometime the Minto Professor of Economics at the Calcutta University, and Prof. C. V. Raman of the Calcutta College of Science, well-known for his recent researches in Physics. Dr. Tej Bahadur Sapru, M.A.; D.L., one of the leading lawyers of Allahabad, is appointed University Professor of Jurisprudence and Babu Bhagawandoss, M.A., of Hindu Philosophy. It is of the highest importance that on the staff of the new University there should be an effective representation of the best intellectual talent of India satisfying in some measure, Cardinal Newman's famous ideal of a true University.

The Government of H. E. Lord Pentland is showing some praiseworthy activity in the educational field and we are glad to see the latest effort is in the direction of organising a Boy Scout Movement for

Indian boys and we wish it all success. To those who have followed the great progress that has attended the Boy Scout Movement in England, it must be a matter for regret that the Indian boy has not been sharing the benefits of the movement till now. The Young Men's Christian Association of Calcutta made attempts sometime back in the direction of organising a Boy Scout Movement for Indian boys, but we have not heard of the success that the Society has been able to achieve. The Government of Madras have gone about the business in the best manner possible by inviting the co-operation of the heads of Secondary Schools in the City of Madras and here is an opportunity for Indian boys in the South to acquire some kind of military training and foster to a high degree the noble virtues of manliness, self-reliance, and patriotism.

The recent visit of H. E. Lord Chelmsford to the Mayo College, Ajmere, was the occasion of some eloquent speeches, the Viceroy referring to the glorious traditions of chivalry the Rajput princes have inherited from their ancestors and exhorting them to learn all that "the phrase of *noblesse oblige* connoted." To the genuine lover of India, however, the various Rajkumar colleges are of melancholy significance, as they have signally failed to impart real education to Indian princes and have only kept them in artificial and unhealthy barriers separated from the highest Indian life and civilisation, and

also from the very people in whose surroundings their life is cast. The Rajkumars, if they are to be in real touch with the Indian people and if they are to be trained to become wise and statesman-like administrators—they must not be brought up in the exclusive surroundings in which they are now brought up in their special colleges. One of the greatest banes of royal life in the East has always been its suicidal seclusion from the currents of popular opinion and thought and a perpetuation of that feature is not what is expected of the British Government in the twentieth century, with its traditions of democratic life and love of liberty. The heir of the greatest Empire on earth, the Prince of Wales himself, does not find it beneath his Imperial dignity, to go down to the University of Oxford and study in its seminaries, like any commoner in England. It passes our understanding why the same kind of educational discipline is not good enough for the sons of the petty Chiefs of India who hold their small areas of land in vassalage to the British Crown. The result of the present system has only been to encourage a most pernicious feeling of aloofness from popular aspirations and aristocratic pride on the part of the princes who have often learnt after their education, nothing but the use of the luxuries of Western life. In the scrupulous avoidance of Indians in the superior grades of these Rajkumar colleges, there lies another great danger—the princes who must be trained to

look at things from the Indian standpoint, learn to look at things from that of the Anglo-Indian bureaucrat, the hardened civilian or the mail-fisted colonel and they have very rarely the opportunity of coming into touch with eminent Indians of high character and education. A few flattering subordinates and teachers in the lower grades are the only Indians they meet with and it is no wonder they do not develop much of national self-respect. We have given expression to this lamentable failure of Rajkumar colleges in such unmistakable language as this, as we know that several of the older and better-informed members of the Ruling princes themselves are of such an opinion and do not contemplate on the education imparted in them with any feelings of pride and satisfaction.

A very noteworthy movement of the times is the attempt made in several parts of India to begin to use the vernaculars for the purposes of scientific expression. That would be a necessary step even for a consideration of the question of the imparting of education in the vernaculars for which there is such a widespread demand in the country. The citizens of Salem formed themselves the other day into a Vernacular Scientific Society and in the United Provinces the Vernacular Scientific Society celebrated its anniversary the other day at Allahabad, under the auspices of His Honour

the Lieutenant-Governor, Sir James Meston. The two Societies have already begun to publish magazines of their own and they hope to render substantial service in the direction of building a comprehensive scientific vocabulary in the vernaculars. *The Nagari Pracharini Sabha* of Benares has already issued a *Glossary of Scientific Terms in Hindi* which might well serve as a model of similar glossaries in other Indian vernaculars. We have only to sound a note of warning in this connection and that is, the terms should be expressive of the ideas in homely vernacular as far as possible, without any resort to elaborate and clumsily artificial compounds Sanskritised in the extreme, more difficult of comprehension to those unacquainted with English, than even the English words and phrases themselves. And again, it is possible there are words which are not capable of any translation and in such cases the best course, it seems to us, would be to adopt the English word itself, if necessary with a vernacular termination at the end. This has already been done with some success in one of the languages of the Madras Presidency, Telugu, and we hope the other languages will follow its lead.

It was a thoughtful and well-written address that Sir James Meston delivered at the recent Convocation of the Allahabad University, and some of the points touched upon by him deserve wide attention. It is opportune, with the Industrial Commission

touring in the land, that he should have drawn attention to the great need there is in the country to bring education nearer the conditions necessary for material progress. Without any fall from the ideal of academic learning which a University must foster in the main, it is probably possible to amplify and add to the courses of studies in our Indian Universities, in such a way as to render substantial help to the commercial and industrial progress of the country. Sir James Meston drew a lurid picture of the frightful waste of human energy implied in the large percentage of failures in the Universities and the weeding out of a number of students as unfit for University degrees after having been allowed to proceed a long way towards them. The remedies proposed by Sir James Meston are not new, and they are two: the improvement of our Secondary schools and the effective division of the pupils passing through the secondary course into two classes, those who are fit for University education and those who must find their careers elsewhere, in commerce and industry. The associated suggestion was also made that the course must be split up into two departments, one preparing students for the University and the other equipping them for an immediate entry into life, the latter to differ from the somewhat theoretical courses now obtaining in our Secondary schools. Both the suggestions are worthy of serious consideration, though the former runs the risk of being considered only a way of shoving the responsibility off to other shoulders

and the latter must take note of the serious limitation that there are very few careers open in those directions. Another matter in connection with University education, which has recently been pressing itself on the attention of the Indian public, and a consideration of which can no longer be delayed is the opening of University Extension Classes and Sir James Meston made a passing reference to it, unable to find time for a more elaborate treatment. The phenomenal success that has attended the University Extension Movement in England and in America fills one with strong hopes for similar schemes in India. In a country like India where the level of public education is not very high, the need for University Extension Classes is even more urgent than in the West and it is time something was done in the country to supply it.

We have always protested against the management of educational institutions by those who are not educational experts in the remotest sense of the expression, and what we have been reading in the papers regarding the imbroglio of the Salem College Principals has only confirmed us in our opinion. Being a college in charge of a Municipality, the person who was in charge of the Chairmanship for a few days, acquired the privilege of nominating the Principal as a vacancy had arisen. The recommendation was sent up in indecent haste to Government, as a new Chairman had

been elected and there were only a few days for him to take charge of his office, and the Hon'ble Mr. B. V. Narasimha Iyer with his genuine public spirit, wider experience of men and things might make a different choice. The Director of Public Instruction had recommended another; the Inspector of Schools was also of that opinion and their own Indian Principal had considered him the best person available for his place, but then, the privilege of self-government had to be exercised with a vengeance, and a nomination was made against the unanimous opinion of three 'experts' who understood about education and who were eminently qualified to advise upon the matter. Government has not approved of the appointment, and has gone to the length of suggesting that the Chairman should consult a small committee with the Inspector of Schools of the Division on it, and the Council is in a fury, as it will not be allowed to go its 'non-expert ways' and cannot submit to expert opinion even in the matter of such a high educational appointment, involving the efficiency of an institution entrusted with the care of more than a thousand boys! If that is the kind of self-government that is wanted and educational institutions are to be handed over mercilessly to uninformed laymen, blissfully ignorant of educational matters, may the powers of Earth and Heaven save us from it!

The recent circular by the Government of India on the subject of Female Education has given fresh impetus to a consideration of the question. It has called forth comment in the press and on the platform and there has sprung up a body of literature which has to be carefully digested before one can arrive at a satisfactory solution of the question. Quite a noteworthy contribution to the subject is however the memorandum prepared by Mr. G. K. Deodhar, M. A., Senior Member of the Servants of India Society, Bombay Branch, as it is full of useful suggestions to the future of Female Education in India, and takes cognizance in an admirable manner of the peculiar conditions of India. The most urgent need in the matter, one which must be supplied before any further effective progress is possible, is according to Mr. Deodhar, the starting of institutions which will in some measure serve as continuation schools for grown-up women as well as for girls who leave school on account of marriage. The advantages of such an arrangement are admirably set forth in the following paragraph:—

"First the educated mothers will be missionaries of female education and of the elevation and emancipation of their own sex; secondly, as educated mothers they will be better able to manage their household economically and thus be a source of economic strength to their families especially in the midst of straitened circumstances; thirdly, they will be better able to take care of their children and thus materially and intelligently

assist in reducing the infant mortality which has in some places grown fabulously high; fourthly, they will be true companions of their husbands and other male relations by being able to take an intelligent interest in social and national questions and by helping in the gradual realisation of the social and political aspirations which are dominating the thoughts of the present generation; and lastly, they will be truly efficient and patriotic citizens of the British Empire."

Mr. Deodhar is keenly alive to the inordinate delays of official action and is not prepared to be consoled with grandiloquent resolutions issued by the Imperial Government from time to time, or even by pious recommendations made to Provincial Governments at similar intervals. What he wants is that the Imperial Government should demand from the Provincial heads 'a cut-and-dry programme of progress to be achieved in the next ten years especially when the Government of India had frankly admitted in one of their resolutions on this subject that 'the education of girls remains to be organised'..... They must see that these programmes made by the Local Governments are strictly adhered to and secondly, vote every year substantial and adequate grants, say 25 lakhs of rupees for ten years to start with to Provincial Governments to enable them to pursue a policy of strenuous efforts to spread education among women much more rapidly than hitherto done and in a manner to satisfy the legitimate demand of the public." One striking feature of the memorandum prepared by

Mr. Deodhar is that it is based entirely on valuable personal experience of institutions devoted to female education in several ways, with which the writer himself is connected by active work. They are the Seva Sadan of Poona, the Seva Sadan Home Classes Committee of Bombay, the Home Classes Committee for the Guzarati Hindu Women in the same city and the Normal Classes in the Seva Sadan of Poona, which are all doing such valuable work for the uplift of women in that part of Western India. Incidentally, one may note, with regret, the absence of such movements for the general education of women in Madras, in spite of its women's colleges, in whose praise so much has been heard in recent months.

In this connection we draw the attention of our readers to an interesting article in the last number and another in the current number of this Review on the question of Female Education in India by Mr. P. A. Subramania Aiyer, B.A., L.T., one of our enthusiastic and able educationists in this Presidency.

Thanks to the princely benefaction of the Hon. Mr. Annamalai Chettiar, the Madura College will soon be raised to the First-grade and be called after the name of the generous donor. The Madura College is one of the oldest educational institutions in the Southern Presidency, and has been responsible for the education of a number of citizens in the country during its long existence, and it will rejoice the hearts of its numerous alumni that the usefulness of

the institution is going to be widened effectively by its being raised to the First-grade. We do not wish to strike any discordant note at the beginning of its new life as a First-grade College, but if newspaper reports speak true, the Committee is already on the eve of committing a blunder—they would seem to be looking for a European Principal. At a time when Indians have been filling with great distinction to themselves and to their country, a number of Principalships and even University Chairs, the Committee are willing to go down on their knees and make the humiliating confession that they cannot find a competent Indian to fill the place. If it is not particularly humiliating to the members of the Committee to contemplate upon their pathetic position of helplessness, it is so at least to all self-respecting countrymen of theirs and we trust they will quickly withdraw from that position. Some of the largest and most well-known educational institutions in India are managed most successfully by Indian Principals, the Fergusson College, Poona, the Ripon College, Calcutta, and the Central Hindu College, Benares, to mention only a few without the 'strikes' and 'expulsions' we often hear of in colleges under European Principals, but the wise people of Madura will not be convinced. We can easily realise the kind of European they will be able to secure for the salary they can offer, and we will await their experience in no mood of doubt or scepticism being certain of what they are going to be like.

The affairs of the Calcutta University are again in a muddle and the Imperial Government have had to appoint a Committee to consider how best to utilise the grants in future for the purposes of the University. The present organisation of the University has assumed immense proportions and what with the necessary financial stress and other incidental inconveniences, the affairs of the University have arrived at such a state that it would seem to be absolutely necessary to cry 'Halt' and examine the progress that has already been achieved. The M. B. classes are run by the University and there are in some of the M. A. classes, in English and in Mathematics for instance, 250 students—in each class. That gives one an idea of the magnitude of the work which faces the Calcutta University, besides several University Professorships which are now being kept, and whose further maintenance has to be decided. Sir Asutosh Mukherjee is the President of the Committee that has been appointed and we have no doubt that he will be able to tide over the present difficulties, as he has done so often in the past.

We congratulate Mr. Hydari on the excellent address he delivered the other day as President of the Mahomedan Educational Conference held at Vaniyambadi. A Government official of distinguished ability, and a broad-minded and cultured student of contemporary problems, Mr. Hydari was eminently fit for presiding over the

educational conference of his community and his address is an highly practical and comprehensive one, constituting a real contribution to the literature on the subject. It was no pathetic appeal for special privileges, which have in the past retarded the educational progress of the community so much, but a dignified exhortation towards self-help and manly self-reliance. "I am strongly opposed," he said, "to that spirit of mendicancy for special favours or invidious distinctions which are so inconsistent with the self-respect of a community like ours." It was an eminently wise suggestion that he made for an effective expansion of primary education among Mahomedans and that was the conversion of the numerous 'Maqtabs' into Elementary Schools teaching the three R's and giving the children some knowledge of at least their immediate surroundings. The comparative want of progress in Secondary Education among Mahomedans was also noticed, and some of the excuses usually put forward in justification were enumerated, but it was a manly solution that was proposed, that of asking for an additional cess being levied on them by the Government, on all public revenues derived from them, whether it be land-revenue, custom, octroi, house-tax or income-tax. That would indeed be a practical earnest of their desire to try to utilize all their resources and would take away the sting of charity from any request for their being supplemented in case they proved inadequate. We heartily commend Mr.

Hydari's remarks on the proposed Mahomedan University. He will be no airy theorizer, asking for a constitution which will not be practicable in the present circumstances of the country, but will have the University started and beginning work as best as possible. We are particularly pleased with the emphasis which Mr. Hydari has laid on the subject of Women's education, for it is one which affects vitally the future welfare of the Mahomedan community, and Mr. Hydari, as may not be well-known, has demonstrated by his own example as the head of a family, what can be done for the education and culture of the daughters of Islam, what increased grace and charm can be added to the beauty of their womanhood. Let every Mahomedan householder take to heart the words of Dr. Lungen of Frankfort quoted by him: "To the grace and personal charm of women let us add the charm of a trained intelligence, let us remove the bandages from their eyes and lead them to the fountain of knowledge, that they too, may have their share in the gathered wisdom of ages, that they may despise empty frivolity and idle chatter and may learn to know the highest and the most inspiring of all human pleasures—joys of mental achievements," and let every Mahomedan youth make an effort to act up to his advice, "to take a vow to himself that he will see that at least one person of the other sex, whether it be his wife, or daughter, or sister is educated." He will indeed be thereby laying to himself a source of true and pure happiness in the home, to which nothing can compare and add to the economic,

intellectual and moral strength of his community. Another noteworthy point in Mr. Hydari's presidential address was his appeal to his brethren to cultivate the vernaculars, side by side with Urdu,—nothing could be more unfortunate than the attitude of unmerited contempt with which Mahomedans sometimes brush away the vernaculars from their attention, forgetting their lot is cast amidst those who speak them, and a knowledge of the languages is essential for any capacity to do good to the country, or even to fill positions of trust and responsibility in official or public life. The Conference itself was a great success, as will be seen by a perusal of the resolutions passed at the Conference appearing elsewhere. The Conference resolved to collect funds for raising the status of the Madras-e-Islamiah into that of a college, and a sum of Rupees fifty-five thousand was subscribed on the spot. Thanks to the energy and enthusiasm of its Headmaster, Mr. Ibrahim Quraishi, it has been growing in its efficiency and usefulness year after year, and we hope that it will one day develop into the Aligarh of Southern India.

We confess to a feeling of intense disappointment at the The Madras Convocation Address of the Madras University delivered by Nawab Imad-ul-Mulk Bahadur Syed Husain Bilgrami, C.S.I. Some commonplace utterances on the value of certain kinds of education, a few pointless statistics relating to the Madras University,—these consti-

tuted the address of the Nawab, from whom much was expected. We did not know it was necessary to seriously discuss the exploded notion that Madras was a 'benighted' Presidency, it has ceased to linger in any enlightened mind. We confess we are not able to follow the Nawab when he says: "We have ceased to appreciate the value of discipline and self-denial and the duty of submitting to the guidance of our teachers, while behaving towards them with the almost idolatrous reverence and respect enjoined on us by immemorial custom." The Nawab may rest assured in his retirement that these virtues have not evaporated from Indian soil and we have in our educational institutions as fine a set of young men as he could have seen in his own days. We do not know how many will be ready to experiment with his idea "that children up to the age of ten, should have no tasks assigned them Their brains should be allowed to lie fallow and left free to grow and develop in a healthy way." The good Nawab seems to forget that the Indian boy—the Hindu and the Brahmin boy more especially—is very precocious and with the regulations about age-limit in the Indian Universities there is more than enough guarantee against any early over-strain of the system. And again, the intellectual faculties cannot grow by being allowed to lie fallow—they can, only by constant exercise. The faculties cannot be allowed to die by their sheer non-use, which would be the inevitable result of adopting his suggestion. We pass on to another point touched by him, and that is the study of Sanskrit and Arabic. We regret he

could not advocate the study of the classics on the highest and most useful grounds, but said that they were good for a better knowledge of the vernaculars and their religions! They are good, more than for anything else, for the acquirement of a certain indefinable but nevertheless real grace and refinement. Their main value is their capacity for imparting real culture. We do not propose dealing with the hysterical political exhortations, at the end of his address as they do not lie exactly within our sphere.

Education was not in the forefront at the recent meeting of the Madras Legislative Council and we congratulate neither the non-official members nor the Government, for this absence of any special effort at their deliberation to advance the cause of education in the Madras Presidency, though there was some ineffectual discussion of one or two points raised in the course of the protracted meetings of that rather ponderous body. The Hon. Mr. Ramachandra Row moved a resolution that a committee of officials and non-officials be appointed to consider the question of improving the facilities for Secondary Education in the Presidency. We have never had much respect for these appeals for official and non-official committees, which seem to have become quite the fashion in the Madras Legislative Council. They often imply want of any definite policy to be urged, and inability to suggest particular measures. The obvious remedy in the present matter is for instance, to start new Second-

ary schools and it is for non-official members also to exert themselves in that direction, in the areas of their own influence. We sympathise with the Hon. Mr. Stone when he said, that it was not information that they lacked in but money. The fact of the matter was that the department was credited with more ignorance than it was to be." The resolution was negatived and that was the only result possible in the circumstances. After all, Committees cannot by any number of resolutions increase the accommodation in our Secondary Schools. There was probably some point in the Hon. Mr. K. Rama Iyengar's request that the rule about the supervision of incomplete secondary schools by qualified L.T.'s be abrogated in non-metropolitan areas, or at least worked with lesser severity. We can claim some acquaintance with Indian managers and what with their inability and what with their unwillingness to pay good salaries to teachers, there is always the tendency in them to reduce the efficiency of the staff, and in the interests of education itself, it is probably not good to do away entirely with a restriction of that kind. It was quite a sympathetic answer that the Hon. Mr. Stone gave, he assured the Honourable member that the rule will not be worked so severely as to give room for any complaint. It was significant of the zealous interest that the Hon. Mr. George Pittendrigh takes in the welfare of the Indian student that he should have thought of moving a resolution about the claims of India for the Rhodes Scholarships. It would be an unmitigated scandal, if

India were not to be allowed to participate in the benefits of the scholarships which Germany has now thrown away, not only by her hostilities towards the British Empire, but by her nefarious inhumanity which will render her infamous in History for all time. We know that the Secretary of State for India has already moved in the direction of pressing the claims of India in the proper quarters, but the Hon. Mr. Pittendrigh need not have refrained from moving the resolution, as its passing would have strengthened the hands of the Secretary of State. This is a matter in which all the educational bodies in India also must bestir themselves and send representations to the authorities in England. There was another resolution on the agenda for the appointment of another committee to discuss an educational question. This time it was for the improvement of the study of vernaculars, but the Hon. Mr. Krishna Row wanted to move it at the next meeting. We do not see any prospect of the resolution being passed, for reasons similar to those urged at the beginning of this note.

We congratulate Mr. C. Ramalinga Reddi on the success which has attended his efforts to lighten the

The Senate Meeting.

burden of the unfortunate Intermediate student of the Madras University. It was resolved, on his motion, at the last meeting of the Senate, that the Intermediate student may be allowed to pass his examination by compartments. There will not hereafter be the anomaly of a student studying English or Mathematics

for one more year because he failed in Vernacular Composition, and so also, all absurdities of a similar kind which have been soul-ruining to the student, expensive to the parent and not very creditable to the University concerned. There were of course the usual champions of efficiency who were opposed to this measure of relief to the poor Intermediate student, but the resolution was passed in spite of them. We do not feel quite enthusiastic over the efforts of some of the Fellows to have verbatim records kept of the proceedings not only of the Senate and of the Faculties, but also of the Boards of Studies. But it will suffice if a correct summary of the proceedings of the meetings of the Senate, the Faculties and the Boards of Studies is kept. Mr. P. V. Seshu Iyer's resolution for the extension of the Transitory Regulations, to enable people to appear for the M. A. examination in 1918, 1919 and 1920 was passed—by the casting vote of the Vice-Chancellor, and it will remove a grievance which has been felt somewhat widely in the Presidency. Dēwan Bahadur L. A. Govindaraghava Iyer sought to prevent Syndicate members from becoming examiners. We admit the present arrangement is liable to certain occasional abuses, but it would seem a pity if a senior Fellow's services were to be lost on the examining side, the moment he was singled out by his peers to take part in the executive work of the University. It may result in the exclusion of some of the ablest people of the University from the examining bodies, or create a reluctance on their part to aspire to positions on the Syndicate where their services would be in-

valuable. It is rather a difficult problem to solve and we do not therefore propose to comment thereon at length here. The resolution was lost and another which insisted on the passing of the annual budget of the Senate was referred to a Committee of six members of the Senate.

It was a very graceful tribute that was paid the other day to the large-hearted educational philanthropist of Madras, Rao Sahib C. Ramanujam Chettiar, when the members of the Ladies Auxiliary of the Indian Christian Association presented him with an address, with Lady Cardew in the chair. It was in recognition of his varied benefactions for the cause of education in Madras, and with special reference to the scholarship for Indian Christian girls at the Government College for Women, Mylapore. Mr. Ramanujam Chetti has extended his helping hand to numerous educational institutions in Madras and his name will be cherished with gratitude in many a temple of learning in the city for generations to come. Among those who joined in the appreciation on this occasion were the Hon. Mr. J. H. Stone, and Archbishop Aelen. If only Madras had half a dozen philanthropic citizens like him interested in the advancement of education, the future would be glorious indeed. We trust it is reserved for Rao Sahib Ramanujam Chettiar to receive more tributes of the kind in the years to come.

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"THE ENGLISH PHONETIC ALPHABET"—A REVIEW.

An Appeal to Spelling Reformers, Phonographers, Educationalists, Phoneticians, Economists, Missionaries, etc., etc.

By REV. J. KNOWLES (L. M. S., TRAVANCORE, S. INDIA, 1880—1900.)

No phonetic student of the present day can easily forget the debt he owes to Sir Isaac Pitman, Ellis and Skeat. It may therefore appear ungrateful, not to say presumptuous, on our part to bring to the bar of criticism any scheme which is said to have been worked out by them. But we shall venture—with the usual apologies which may, however, be taken as read—to offer a few remarks on the "Phonetic Alphabet" put forward in the pamphlet before us.

We are in complete agreement with the Rev. Mr. Knowles when he says that sooner or later we will have to make the English Alphabet complete by adding such symbols as are found to be necessary. But we cannot so readily agree with him as to the amount of saving he expects, for

he seems to forget the heavy expenditure that will have to be incurred in adding new types. Nor can we very much approve of the formation of the new letters proposed, for the simple reason that they more or less resemble the already existing letters and may therefore lead to unnecessary confusion. But we shall pass over these minor points.

We shall now proceed to see how far the "English Phonetic Alphabet" is really *phonetic*. The analysis of English consonants in the scheme before us need not detain us; but unfortunately the same cannot be said of the analysis of English vowels. The pamphlet mentions but six short vowels as found in the following sentence taken from Pitman's *Shorthand Instructor*:

"That pen is not much good."

We may re-write the sentence as follows, using the symbols of the International Phonetic Association:—

ðæt pen iz nɒt mʌtʃ gud.

But what about the most common of the English sounds, θ, which occurs as the second

vowel sound in "father" (fa: ʃə). Turning to the specimen passage, we find a or ɛr is made to represent this sound. In any consistently phonetic scheme ɛr can mean only e plus r where both sounds are to be pronounced. Though for purposes of shorthand ɛr was thought by Pitman to be more or less satisfactory, it cannot be accepted in any phonetic scheme, for the fundamental principle—one sound, one symbol—is violated. In other words, "Phonography" need not necessarily be a "Phonetic Alphabet."

The analysis of long sounds is equally unacceptable. The illustrative sentence as given by Pitman runs as follows:

"Pa, may we all go too?"
pa: , mei wi: ɔ:l gou tu: ?

Does the Rev. Mr. Knowles pronounce ɛi in "may" and ou in "go" as pure long sounds, or as diphthongs as in most parts of England? Once again, how does he pronounce "bird"? His specimen shows he will write bɛrd and if we are to believe in the script being phonetic, it should be pronounced bɛrd by him. By the way, does he really say dʒɑ:neɪn or dʒɑ:neɪnɪŋ? (we say dʒɑ:neɪnɪŋ) For his spelling is "jurnɛɪn."

Coming to English diphthongs, we are told there are four, for which we may give the following illustrative sentence:

Few fight round boys.
fju:fait raund boiz.

It may be rightly asked whether ju: is a diphthong. Referring to the New English Dictionary, we find "diphthong" defined as "a union of two vowels pronounced in one syllable." And according to Sweet also, "if two vowels are uttered with one impulse of stress, so as to form a single syllable, the combination is called a diphthong." How does the Rev. Mr. Knowles pronounce the diphthong "i u"? In one place he writes ju ("you")—we pronounce ju: and in another place, but in a different word, he writes ju in fin ("few")—we

pronounce fju:). Does he then make a difference in the two cases? If so, we can only say that we have never before heard of this. If he pronounces ju: alike in both cases, we do not see why he should have two different ways of representing the same compound sound. Nor are we able to see how he can call it a diphthong unless he pronounces it as i plus u.

Again, we find in the specimen passage that "hwer," which according to his scheme should be pronounced hweir, stands for "where" (our wɛə); "hiir," for "here" (our hiə); and we have to presume he will write "puur" for "poor" (our puə). Are these the pronunciations that obtain most commonly in England? Once again, we do not see why he writes "yusɪʊal" for "usual" (our ju:ʃuəl).

We have thus far taken the liberty of pointing out what we consider to be the defects of the "English Phonetic Alphabet," for, in spite of our sympathy for every movement that is calculated to strike at the very root of the treacherous English orthography of the present day, we cannot afford to be illogically compromising. We may point out here that the scheme put forward by the International Phonetic Association is singularly free from the defects and errors we had the misfortune to note. With 37 symbols we can easily transcribe any passage in English with extraordinary accuracy. We therefore subjoin a phonetic transcription of the specimen passage* entitled "The Two Frogs" and leave the reader to judge for himself.

ʃe tu: frogz.
etɔ:ŋk 'in wɪtʃ tu: frogz hed lɒnliəd wɜ:z draɪd ʌp baɪ ʃe hi:t, end ʃei wɜ:ret leɪə əblaɪdʒd tə sɪk wɜ:tə ɛlswɛə. ɛz ʃei wɜ: dʒɛniɪŋ ɒn, ʃei rɪstf ʃi ɛdʒ ɛv ə dɪp wɛl in wɪtʃ ʃei sɔ:ə gʌd dɪəl ɛv wɜ:tə 'fɔl wi dʒʌmp in hi:z, 'sɛd wʌn ɛv ʃe

* Of course with apologies to the Rev. Mr. Knowles.

frogz; "it iz bɒθ kʌl end dɪp end laɪk ʌs ju:ʃuəl dwelɪŋ pleɪs; ʃe sɔ:lɪz dʌmp end ʃe ɛr ə fju:pə m'ɪrɪz raʊnd ɒbaʊt; wi nɪd gou nɜ:fə: ʃe." "ʃei," sɛd ʃi ʌʃe; "bɛt ɪf ʃe wɜ:tə fɛd' fɛɪ hi: rɔ:l sɒn, hʌn wʌd ju get ʌt ɛɡən?"

As will be seen from the transcription given above the scheme as adopted by the International Phonetic Association involves the introduction of twelve new symbols. Though for purposes of scientific study this may be not only useful but absolutely necessary, it may be doubted whether this will be, or even can be, adopted for general use. We believe the English are a practical set of people and will sooner or later find out a way for perfecting their alphabet without needlessly introducing new symbols. We believe they will perceive that they are just now playing to a very costly tune and that they need not have the luxury of having two sets of types, capital and small. Capital letters have been done away with in the transcription given above and they do not seem to be missed. Is it not possible then to stick to one set of types, say the small, and eke it out with the superfluous types taken from the other? We prefer to keep the small types for the reason that in all printing presses they are more numerous than the corresponding capital types. With this as the basis it is not very difficult to reconstruct the English Alphabet.

The English consonants—p, t, k, f and s, and their corresponding voiced sounds b, d, g, v and z, and also the sounds l, m, n, r, h, w and y—may have the same values as now. The vowels e, i and u may have their continental values as represented in words "pet," "pit" and "put" respectively, a and o may have the values as in the first element of the diphthongs "pile" (pɛɪ) and "poll" (pɒl) respectively. This leaves but fifteen sounds without corresponding symbols, of which five are consonants, five are long vowels

and the remaining five short vowels. We have now four symbols among the small letters—c, j, q and x—yet unused and the whole of the 26 capital letters to be made use of. Leaving off some of these capital letters which have more or less close resemblance to the corresponding small letters, it will be quite possible to select fifteen out of thirty symbols for the fifteen sounds unprovided for. Capital A will do work for the ʌ sound in "shut" and capital E, for the first element of the diphthong in "share" (ʃeə). Capital T and capital D may stand for Q (in "thing") and ʒ (in "thus") respectively. In the other cases, the choice of symbols will have to be more or less arbitrary. A moment's thought will show that it is absolutely impossible to achieve the result without shocking some prejudices. Let us give but one instance. There are fifteen vowel sounds but only ten (including capital and small) symbols to represent them with. Therefore we have no other go, but to borrow five symbols from the "consonants" in the capital types. Provided that care is taken to see that the types used, both capital and small, are of the same size, a piece of printing—this applies to a piece of hand-writing as well,—need not look less beautiful than it does now. We are quite aware that this scheme will evoke laughter at first sight, but unless we are mistaken this will have to be the solution.

As regards what the Rev. J. Knowles has said with regard to the Roman letters for Indian languages, the subject being too vast, we cannot attempt to discuss it in such a brief review like the present one.

T. A. HARRIS.

PHOTOGRAPHY: ITS AIDS TO THE SCIENCE TEACHER.*

PHOTOGRAPHY which has now grown into such enormous proportions has like similar subjects started from humble beginnings. We might even say that photography has obtruded itself on the scientist. The germs of photography lie in the observations, very often annoying, made by chemists in the changes undergone by substances like chlorine water when kept in a bottle exposed to diffuse daylight. These observations naturally led to the investigation of their causes and to the discovery of the part played by light in their causation.

It was however reserved to Scheele, whose name is well familiar to students of chemistry, to make any systematic investigation regarding the action of light, chiefly on salts of silver. He noticed the important fact that among the colours of the solar spectrum, violet was the most effective in blackening silverchloride. (An experiment on the action of the solar spectrum on sensitive paper was shown). The red, orange and yellow parts of the spectrum have no action. The blue and violet portions have the greatest action, because the greatest blackening has been effected there. The action extends beyond the visible part of the spectrum. Hence we see why in operating upon photographic surfaces, we have to use red light.

The 19th century has witnessed the most important developments in the science of photography. The 1st photograph worthy the name of which there is any record was produced by Wedgwood of England using a simple process. It may be briefly referred to here. Paper coated with silver-nitrate solution was exposed to

intense light. The alteration of colour so produced was found to depend upon the intensity of the light and hence a photograph was no doubt obtained; but he was unable to fix his prints, no washing being sufficient to eliminate the traces of the silver salt.

Sir Humphrey Davy found, in 1813, that chloride of silver was more sensitive to light than the nitrate and he was able to produce a good photograph. What was wanted in it may be stated in his own words, "nothing but a method of preventing the unshaded parts of the delineations from being coloured by exposure to the day is wanting to render this process as useful as it is elegant," i.e. nothing but a fixing agent was necessary. Hence the use in 1839 by Sir John Herschel of a fixing agent, viz. sodium thiosulphate or the photographer's hypo, marks an era in the history of photography. During this period the time taken to procure a photograph even when sunlight was very bright was about three hours. The idea naturally arose that the period of exposure should be considerably shortened in order that the photographs of living objects which do not remain fixed in the same position may be taken. Had this improvement not been effected photography would not have counted much in the civilization of mankind.

The next epoch-making event was therefore the discovery of the invisible effect of light on certain substances when exposed to it, which effect can be made visible by a developer. Like most of the romantic discoveries in science, this was accidental to some extent. It may not be out of place to give a brief account of this discovery.

In 1839, soon after Herschel announced the use of sodium thiosulphate as a fixing agent, Daguerre and Niepce, two eminent investigators in this field of science, devised a process now known as daguerreotype, which was different from the previous processes. The processes still

then known were all based on a visible discoloration of a silver salt under the influence of light. The great principle revealed by this discovery was that light can effect changes in silver salts without any visible discoloration of the surface of the sensitive substance, that an invisible image could be formed by a comparatively short exposure, the picture only becoming visible when submitted to a subsequent operation of development. The sensitiveness of the silver-coated surfaces was gradually increased and the method of development also has undergone very many alterations that now a photograph can be obtained by an exposure lasting only a very small fraction of a second. To put the development of photography in less than $\frac{1}{2}$ of a century in a nutshell, "the ratio of 3 hours to $\frac{1}{100}$ th of a second is a fair estimate of the progress made since 1827." Hence it has become an easy thing to take a photograph of a very quickly moving object as a shell discharged from a heavy gun. I have been very often struck with such photographs in the 'Illustrated London News,' and the 'Graphic.'

The later improvements were the introduction of the process of toning or gilding the image by a solution of gold, use of restrainers, and intensifiers, use of dry plates and so on. We cannot but look with awe at the vast amount of labour and time that have been spent by many of the illustrious investigators, the fruits of whose labours we are reaping in the achievements of the present-day camera.

We may in a paper like this give a brief account of the processes which an amateur should be familiar with in order that he may successfully practise photography. The first and foremost thing is to procure a good camera. The choice of a good specimen will require no doubt some experience and as the market is flooded with different types of camera, it is no easy thing to make a good selection. One point to be remembered is that the camera should be as light as is consistent with perfect rigidity, so that

when set up no relative movement of the lens to the sensitive plate should take place. The camera and plate carriers should be completely light-tight. The camera should be fitted with a reversible back so that the greatest lengths of the plate may be horizontal or vertical as desired. For a teacher of science a $\frac{1}{2}$ plate camera will be sufficient for all purposes. Special attention should be paid in the selection of the lens used in the camera.

After making a good selection the next thing that must receive our attention is our plates. The use of wet plates though not completely superseded is fast disappearing for obvious disadvantages. As regards dry plates I do not think that any science teacher will have the leisure to make them. Their cost is not much and they may be easily had from the market. No doubt a knowledge of their composition is necessary and this can be easily had by a reference to a book like Derr's 'Photography for Students of Physics and Chemistry.' One point that should be remembered in loading the double slides with plates is that the surface of the plate which will be exposed to the light is the film coated surface. This may be easily identified in the red light by the dulness of the surface when observed by the reflected light or by merely feeling it with the hand.

The next point that should receive our attention is the focussing of the image on the ground glass screen. The science teacher would have had sufficient experience in carefully focussing lenses that nothing need be said about this. Only if the lens attached to the camera is a good one, when the central parts are focussed the end portions also will be in the focal plane and there will be no spherical aberration, i.e. straight line objects will not appear curved and no chromatic aberration, i.e. a white object will not appear coloured. As regards the exposure necessary in each case, it depends upon the nature of the lens and the

* Extracts from a paper read by Mr. V. N. Viswanathan, M.A., Lecturer in Science, Salem College, before the Teachers' College Teachers' Association, accompanied by demonstrations on 26-8-1916 under the presidency of Mr. P. Lakshmi Narasu Naidu of the Pachaiyappa's College.

plate chosen. Practical experience, alone with each camera can tell one as to the amount of exposure necessary in each case. Then the next operation is the process of development. It is too much to hope for every science teacher to have a good dark room for photographic purposes. The process of development may well be conducted during night. The necessity for securing a good lamp which will give a sufficient amount of red light may be pointed out. As regards the developers to be used and the time for development the manufacturer of the dry plates gives sufficient instruction. The image obtained by development is called a negative for the obvious reason that in the figure, the white portions of the object photographed will appear dark and the dark portions white and the intermediate portions of intermediate shades. In a meeting like this, it is difficult to show the actual processes involved here by an experiment, as we require a dark-room; but we can to some extent imitate the formation of the invisible image and the development of the visible image by the following experiment. Here we have a sheet of paper coated with ammonio ferric citrate. In the presence of an organic substance like paper this salt when exposed to light undergoes a change, whereby the ferric salt is converted into the ferrous. A design is cut on black paper and if this is exposed to light, the design becomes delineated in ferrous salt, and thus becomes faintly visible. The contrast can be made more striking by washing the surface with potassium ferricyanide solution which produces a blue precipitate with ferrous salts. (This experiment was shown).

The next process is, to fix the negative, i.e. to make it insensitive to light. This is effected by washing the developed plate well and then immersing it in a bath of concentrated hypo. The plate after immersion in the hypo must be well washed in running water. There is even now in this age of startling scientific discoveries

hardly any phenomenon more striking than the gradual appearance of a picture with all its delicate gradations of light and shade on what was apparently a homogeneous surface on the application of a developing solution.

The next process is that of printing. To print the image on sensitised paper, the paper is placed on a printing frame over the —ve and exposed to diffuse day light. It is allowed to print for such a time as the image appears darker than it should finally appear. The two remaining operations are toning and fixing. After the image has been obtained on the printing paper it may be thought that there is nothing more to be done except to fix it or make it insensitive to light by immersing it in a bath of hypo. When this is done the image is fixed but the reddish brown colour is objectionable. Therefore the image is made to undergo a farther process of toning before it is fixed. This process is quite simple. It is merely the changing of the reddish colour by first washing the print in water and then immersing it in a toning bath which is merely a neutral solution of gold chloride in water till the desired shade is reached. (Processes of printing, toning and fixing shown).

We may now pause to enquire what uses photography serves. One of the important uses of photography is that it enables us to see objects moving with great velocity. But the part played by photography in the development of certain branches of science may be specially referred to. Prof. Barton in his Text-book of Sound has produced a remarkable photograph of Prof. Boys wherein the existence of aerial waves when a bullet is discharged from a gun is seen. Photographs of interesting astronomical phenomena lasting only a few minutes have thrown a flood of light on the study of astronomy. I may refer here specially to the photographs of the total solar eclipse whose study later, has led to the discovery of solar prominences.

The study of these prominences has now been carried to a high degree of perfection. Numerous small planets and stars too faint to be recognised by the eye have been identified by celestial photography. For these faithful services, the photographic film has been described as 'the retina which never forgets.' Prior to the application of photography to the study of astronomy, people had to depend for the study of certain celestial phenomena on the drawings of astronomers which were usually defective in several details. In acoustics too photography has contributed much. The phenomena connected with the vibrations of the stringed instruments have been recently studied by Profs. Rayleigh and Raman with the use of photography. The application of photography to the study of spectrum and allied phenomena has been a source of fruitful investigation. We may also point out the use of the kinematograph film whose educative value is too well known to need any mention. The use of photography in connection with Röntgen rays has revolutionised the methods of medical science. In fact there is no department of knowledge which has not received direct or indirect stimulus from photography.

We may now speak on the special purposes photography serves to a science teacher. The curriculum of studies in our High Schools and Colleges demand both in Physics and Chemistry a knowledge of the principles of the use of the camera in our pupils. In order that these may be effectively taught with the creation of some lasting interest in the pupils the teacher himself has to be fairly well acquainted with the use of the camera. Otherwise the teaching will lack all warmth.

The teacher can also make his teaching more effective at times by showing the photographs of apparatus used by him in performing certain experiments which for want of time or through

some unexpected occurrences cannot be conveniently shown. The fact that the photographs so shown were actually taken by a teacher will add much to the educative value of his teaching.

Again the use of the magic lantern in the class room is widely advocated. A teacher must therefore provide himself with a number of slides, some at least should be his shown (some slides made in the Teachers' College Science Laboratory were shown). The slides made by the teacher will arouse the enthusiasm of the boys and thereby create a good deal of interest in the work of the class. A teacher should therefore be well acquainted with the construction of the magic lantern slides.

The use of stereographic pictures for the education of children has been recognised and a teacher may consider whether it will not be advisable for him to practise making stereographic pictures of interesting objects in his neighbourhood.

Before concluding this paper, a few words may be said about the present position of photography and how it devolves on all of us to work in certain directions. In spite of the wonderful advances made recently in photography, it must be admitted that the science has still to undergo many improvements before it can be pronounced to be perfect. One chief defect is that visual intensity and photo chemical intensity are in no way related, that is to say, whereas yellow and orange appear to be brighter to us than violet and blue, the latter colours appear more bright on the photographic plate. The first experiment will bear out this statement. Many laborious attempts have been made to remedy this defect and though partial success has been attained, much remains yet to be done.

There is another important defect in photography and that is while our eye can see an object with all its rich colours, a photograph of the object is unable to show any such gradation

of colour. This blindness to colour has been discerned from the very infancy of photography and methods of overcoming it have been very often tried. Lippmann and others have done remarkable work in this direction; but success on a practical scale has not been achieved so far. Unless distinct advances are made in this direction, photography must always remain subsidiary to painting. It is for the science teacher to see what he can do here. Then again, many of the theories of the chemical changes or quasi-chemical changes in photography have been at best only partially understood. A reference to a book like Meldola's 'Chemistry of Photography' will convince any one of the plenty of scope for original work in this direction. I may add also that it is possible for even teachers of slender means to try to do something, as much of costly apparatus and elaborate arrangements are not required in their study.

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WITH NOTES AND INTRODUCTION

REVISED BY

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ONE REASON WHY OUR STANDARD IS DETERIORATING.

The other day I had an opportunity of hurriedly glancing at the Director of Public Instruction's Annual Report. The first thing that attracted my attention was the Hon'ble Mr. Sharp's reference to the results achieved by various colleges at the First Year Arts Examination held under the new regulations. It is thought that this examination was transferred from the University to the colleges partly because it was thought that the number of candidates at the examination was growing unwieldy, because the University did not provide a very effective machinery for testing the abilities of the students and because it was believed that it was more scientific and natural to leave the work of testing the students' knowledge to those who came in contact with them and knew them more thoroughly than to strangers who could not know them so well. It was expected that the transfer of the examination from the University to the colleges would help us in raising the standard of efficiency. The results of the examination however show that most of the colleges are able to show greater number of passes under the new system. Perhaps the teaching at the colleges has suddenly changed. It has become more efficient and effective. It is, however, not easy to believe in this theory.

When I read this part of the report my thoughts began to run in some other direction. It occurred to me that the testing has become less efficient. I thought of the examinations elsewhere. The often-made cry "our standard is deteriorating" came to my mind most forcibly. The factors, that help the downward course, I now remembered. How our examinations serve to lower the standard was quite clear to my mind.

All teachers while examining papers are consciously or unconsciously influenced by the name of the candidate and by the impression that they have got about the student's ability. When a stranger conducts the examinations this factor

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almost never enters into his consideration. His results, therefore, are less vitiated.

All men possess a heart and often a tender heart. This tenderness of heart becomes more effective when those to be affected by our actions are near to us. The school-masters very naturally judge their own boys liberally. Oh, they have worked for full one year. Their parents have spent a lot of money. Education is so costly.

All schoolmasters know that the result of an examination is a reflection of their work. A better result will give them greater credit. Their fate lies, to some extent, in the hands of their colleagues, sometimes unconsciously, sometimes half consciously, rarely in full consciousness they judge others as they would that the others should judge them. Local examiners are more susceptible to the influence of parents than strangers.

These are days of keen competition. The managers of private schools fish for boys in every conceivable pond. They use all sorts of traps. They can go to the parents and appeal to them in the name of national enterprise. They can find out friends who are connected by blood ties with the boys' parents. They can entreat them to send the boys to their schools. They can serve municipal councillors in various capacities—some of which not quite honourable—to use their influence for securing boys. They will go further, they will offer the students all sorts of temptations. Perhaps they will allow them more freedom than is advisable. Thus discipline will grow loose. Lastly they will make the promotions easy. If nothing else can induce the boys to join their school, at least this very strong temptation would. Examinations would become nominal then. The Headmasters of the Government High Schools are quite conscious of this competition and of the methods employed. Against their better sense, they have perforce to lower the standard of efficiency required for passing a certain examination. Thus the evil is ever growing.

Having noted the evil and its causes I might suggest a few remedies. Perhaps the evil can

be greatly diminished by resorting to the old practice of asking the same man to conduct the examination of all the schools in the same locality. The number of students at present is much larger than it used to be sometime back. It is a heavy task to assess papers of so many candidates. For each paper there should be many examiners, one examiner should be required to examine not more than two questions of all the students appearing at a particular examination from various schools. The masters of the private-schools should be treated, for this purpose, in the same way as those of Government High Schools. Care should be taken to have strict supervision at the time of examination.

The candidates should be given special numbers for the purposes of examination. They should be required to put these numbers only on their papers, but not their names.

To eliminate the effects of evil chances and accidents the class masters should be required to make a report in writing the ability of every student. This report should not be written at the end of the year. It should be a record of the progress of the student throughout the year. The examiners should not be shown the report before they have assessed the papers. A certain number of the maximum marks should be allotted to this report. The marks obtained by the students in the paper examination and the report should be added together.

Promotions should be decided by a committee consisting of the heads of the various institutions. This would put an end to unhealthy competition.

Thus have I stated in a few words that our system of examinations is responsible for the lowering of the standard of curing efficiency and made a few suggestions for curing the evil.

TARACHAND D. GAJRA

THE KINDERGARTEN.

II.

THE INFLUENCES OF MODERN EDUCATION UPON
HANDWORK FOR YOUNG CHILDREN.

THE real meaning of popular education.—

The democratic idea of education still causes many educators to shake their heads doubtfully. They fear that beauty and culture are to be sacrificed; that education is becoming too practical, that the emphasis is too great upon industrial arts—in fact that education is in danger of becoming degraded, dragged down to a mere bread and butter basis. They feel that efficiency spells technical skill, robbed of all the finer æsthetic expressions of life. They have failed to see that education is for the formation of character. By character is meant that quality which renders the individual "able to make good and valuable selection along all lines of living." In fact, their breadth of vision has been too narrow for them to see that the preparation of youth for a serviceable life rather renders him the more appreciative of all that culture implies, prepares him "for the higher life of the spirit and for participation in the public life of ideas."

It is the appreciation of the problem which is, by its nature close to the child's need, demanding of him the same kind of thinking inside the school that would be demanded of him in the world outside, which has brought about present methods and subject matter. This is plainly seen in the character of handwork for young children. Our present Kindergarten standard consequently would banish from Kindergarten practice all forms of handwork which cannot be used by children and which can be of no real value in their eyes.

It has been said that "crude beginnings of handwork in the Kindergarten cannot be classed as industrial product, nevertheless through these crude beginnings is the finished product of later years possible." Consequently, it is just as important to start the child right along these lines, as to give him the right start in his reading and writing; this means that formalism must go, and an over emphasis of technique be avoided. Technique must always lag behind the idea, and the idea must be the child's—not the teacher's. As this becomes more fully appreciated, things not vital to the child's interests or needs will be omitted. The child's demand has ever been for houses, dolls, waggons, clay dishes, furniture, etc. If folding is to be done, something of worth will be the result. There will be boxes, baskets, scrap-books, a kite that will fly, instead of small models accurately and neatly folded and pasted in a book to be taken home at the end of the year.

Much Kindergarten work has been justly criticised for its insincerity. The child has been pushed into a finer, higher expression than he can understand or appreciate. The result is mere imitation, a parrot-like reproduction of the teacher's idea. Dr. Dewey feels that to stress the æsthetic sense may tend toward moral insincerity—the child not responding naturally, but because he is expected to.

Influence upon Material.—The quality of instruction depends fundamentally upon the quality of subject-matter. Let us therefore first consider the character of materials used in the handwork with young children, keeping in mind that the criteria for selection depend upon the child himself, and his own

natural selection and use of materials. This is first based upon his instinctive manipulation, second upon his play motives, and third upon his need to clarify thought. Just how does the use of materials clarify thought? "Materials are divine obstructions." The effort against them brings back an enlarged view, an added strength and efficiency. So thought travels out and comes back to itself. A child knows his own thought by painting, modelling, doing, etc. In this sense these obstructions are the reflection of his thought and result in self-consciousness, self revelation. For a child, to quote Dr. Dewey, "does not have clear ideas and express them, but he expresses that he may clear them."

The field for selection based upon the above criteria is a large one and can be most abundantly and satisfactorily supplied at little cost to schools. All, or nearly all, that is demanded during this first period of manual expression is an abundance of large bricks, paper, paste, cardboard boxes, cloth, wool, needles, thread, string, wood, nails, nature-materials, clay, sand and water, with auxiliary material furnished by both the teachers and children to help more fully to express this idea or that.

I wish to offer one word of caution in regard to cheap material. Cheap material should be furnished as long as inaccuracies do not harm construction. For instance, it is neither economical nor educative to use poor clay which crumbles when modelled, or is so elastic that it is almost impossible to handle with any result whatever; or to use cardboard which cracks instead of bends when the need is to make a clean, firm fold; or to use scraps of too fine yarn. However, I do not mean by this that the child should

be deprived from experimenting with different grades of materials in order that he may make his own comparisons, and learn to appreciate quality, and hence relative values. But it is unwise to resort frequently to make-shifts. You cannot expect a fine house to be built with a blunt saw, crooked nails, and a light hammer any more than you can expect satisfactory work with children who have poor scissors or paint-brushes, cracked blackboards, or small sand tables. What is wanted, therefore, is material which has a significant and appropriate relationship to the child, offering him opportunity and motive for the exercise of his powers, both mental and physical—material which frees him, binds him down to no set rule, teacher's aim or attitude, but gives him opportunity to try his strength and to measure himself against the ability of others, and gives him confidence in his own power to create and in his "power to use ideas." For instance, a good illustration is the present demand for large sheets of drawing paper, for black printer's paper, rolls of wrapping paper which is tough, flexible, unglazed and of good colour instead of little squares and circles in neat and expensive packages. There must be no scrimping, no small and finicky work, but everywhere freedom to think and do for one's self.

"The time has come when, according to our present manual arts conception, gifts and occupations should no longer be considered separate phases of Kindergarten practice, but as phases of one and the same thing embraced under the one term 'handwork'."

A few years ago many Kindergarten teachers thought to meet the situation by a compromise, calling gifts "table work," and occupations "handwork." Present standards

will not accept this. It has small patience with empty terminology, with "schools" of work, based upon a prescribed use of didactic material. Didactic material endangers the child's natural relations to life, for it is a death blow to experimentation.

Auto-education is valuable only when the stimuli offer situations which grow increasingly difficult to solve; then it builds up sound thinking and the making of judgments; used otherwise, didactic material develops a minimum of judgments. Modern Kindergarten practice has therefore eliminated all but the large blocks and sticks. The other gifts are omitted because they are small and tend to induce nervous handling. They are abstract and mathematical forms and violate the order of mental development. On the other hand, big blocks supply a social and a practical adjustment that cannot in any way be given by small material. The big blocks are heavy and so encourage group work, and the results from the contributed effort demanded may be enjoyed by all. Also the big blocks have great intellectual value inviting analysis of thought.

Influence upon Method.—In the education of very young children, the teacher will always be of more importance than method or material. Frank McMurry, author of "How to Study", states that the greatest factor in the development of the individual is the personal relationship between pupil and teachers; for, as he says, "the test of the quality of instruction is found in the activities of the children." It is the artist teacher, therefore, who uses that method which forms good habits—habits which result in good conduct and purposeful activity. But good conduct from the modern educational point of view is

more than punctuality, regularity, and neatness. "It is rather the correct habit of using the mind," which depends upon habits of motive, appreciation of values, organisation and independence. This calls for a balanced type of teaching for healthy action and interaction between pupils and teachers. An instructor of manual arts in one of the large schools of America is reported to have said in speaking of the attitude she holds toward her students: "As soon as I have developed the mind process in any one of my students, my hours of 'teaching' that student are over, for from that moment I become his or her adviser and assistant." To the academic mind, to allow the child to come through the learning process is agony. However, any teacher who cannot allow the learning process to take its course had better give up teaching little children. The only way to get good form in this world is through self-expression. This at first must be crude. The habit of technique can be found only through self-expression, the crude results of which depress the form-loving soul. There really is no battle between spontaneity and good form if the teacher's attitude is the right one.

The learning process of life demands things in activity. Consequently, when we enter a Kindergarten and see on every hand evidences of formal work, we know that the teacher has interpreted the child from above down, that she has not taken him as he is but as she wishes him to be. Such a method is not conducive to the learning process.

The teacher of young children who can sit down with them, accepting any play suggestion that they may give and still make sure that they find a real discovery, or result—the one who can work with any material and

still carry out a principle—this is the teacher who commands method. There is no one method, but a perfect blend of teacher, pupils, and material. It is evident that this would give just opportunity for the activity of all the factors—opportunity to try a variety of ways of going about things to arrive at certain ends. Many people still think that the experimental method is impossible, for they believe that "ends" are necessarily imposed, or that once they are either originated or imposed the "means" becomes so fixed that opportunity for experimentation is annihilated. Is this true of the adult problem? If we watch children of all ages in their undirected use of materials at home and out of doors, we find they are either experimenting, discovering what they can do with them, or working with a purpose making something definite. Modern psychology has proved the fact that there is no difference in the mind-process of the adult and that of the child. The only difference is in the character of the problem. Common-sense would show that this does not prohibit a legitimate place for imitation, for suggestion, and even for direction. There can be no tyranny of mind over mind. Tolerance and respect for individuality must be shown by the teacher; for is not a six-year-old child as worthy of respect as a man? Back of all work with children there must be faith in their worth. Therefore, above all, the teacher must place the centre of gravity upon them, she must allow them to attack the problem for themselves, giving them first the material for free experimentation, that they may discover for themselves the possibilities and limitations of each. This is the only sane approach. In fact the "experimental

method" which develops naturally into the "problematic method," thus giving every opportunity for the development of technique which comes through the growth in the situations themselves, is the perfect blend of all methods of which I have already spoken.

Let us now consider the outside interests of children, which furnish motive for their handwork. There are the house, garden, community, making of toys, dressing dolls, making of paper dolls, the seasonal interests which bring the need for kites, marbles, tops, boats, etc. Then there are festivals and parties. These natural conditions set the majority of children's problems. For instance, dolls create conditions out of which the problems arise. The doll needs a dress, hat, she needs a swing and a rug, a set of dishes and linen for her table. Her house must be furnished with beds, chairs, and tables; the windows must be curtained and the beds supplied with pillows, mattress, sheets and blankets. If we had doll families and doll communities in the Kindergarten, many problems would arise naturally and bring about creative and constructive work. Toy animals are almost as great a help in giving opportunity for natural childish problems as the doll. There must be barns, sheds and fences for the horse and cow, hutches for rabbits, a fold for sheep. There must be waggons, carts; roads must be made and bridges built for waggons, open up a whole field of possible activities, as do trains, brooms, tubs, stoves, etc. In fact there is so much to be done in connection with all these, that I have known children to plan their work three weeks in advance.

Materials suggest problems to young children whose interest is more immediate. With

them the mastery of the material is in itself a problem. As ideas grow out of the using them in their turn suggest other ideas with the result that there is growing definiteness which is really the beginning of purpose. The Kindergarten must therefore select carefully for emphasis such material as can be shown to have the greatest significance.

Let me discuss briefly these materials which are most commonly used in the majority of Kindergartens.

Clay and Wood.—Clay is especially valuable as it makes possible representation in three dimensions. No higher degree of skill or accuracy is expected with little children. The chief aim is to express and to awaken a sense of proportion.

The work with wood should be introduced through the handling of scrap-wood. It is cheap and will be most suggestive. The youngest children can do little more than assemble parts which have been gotten out for them, with the older children the projects are suggested by their own needs or those of their dolls.

Paper and Cardboard.—All children delight in using paper and scissors and should be encouraged as I have said in free experimentation with these. Old newspapers cut up, fringed and folded are excellent for this. The children may use these freely and not feel hampered, thus gaining power easily over tools and material.

Outline cutting should be used very little, as its only value is in the technical training of eye and hand. Accuracy is needed most certainly, but not at the continual expense of creativity.

A few uses of paper which will develop from the needs of the child's or of the doll's

are: paper dolls, soldier's caps, hats, flowers, pin wheels, fans, Christmas tree decorations, scrap-books. The use of paper in construction should be carefully watched, as it is with this medium that much insincere work has been done. Furniture that will not stand after it is made, and waggon which will not hold any thing encourage children in a deplorable use of material.

Chalk, crayons, and paint are mediums which, leading to the fine arts, are considered in the handwork of young children. The teacher's part is to aid in the elimination of scribble, and thus avoid an arrest of development caused by the child's falling into some one conventional representation. The range of subjects is as wide as the child's experience, and will include human figures in action, events in literature, and in the child's own life, and local occurrences, such as fares, parades, circuses, excursions, home-life.

Bold work should be striven for using the side of the chalk for mass representation. Children should be given opportunity every day for large, free drawing. Crayons and large paper either fastened to the wall, or used on the floor, will give the added enjoyment of colour. With the crayons some definite art work may be attempted, such as simple borders in flowers and conventional design, to be applied to industrial arts work. Above all the child needs large paper, and plenty of blackboard space if his work is to bring satisfaction to himself. He cannot express anything worth expressing in a small area. One of the strongest reasons I can bring forward for this drawing is in the training of the large fundamental muscles of the arm,

Nature Materials.—Chains of nature material may be made. There is an almost endless variety of these, including berries, nuts, seeds, reeds, hollow stems, of many plants. Melon seeds may be dipped in diamond dyes, and beautiful colours secured. Macaroni may also be painted in the long strips and broken to string between the berries. These strings should first be made for the child's own personal decoration, since interest in the decoration of the room comes later. Mistakes are too often made about this, and the child tires of such a waste of effort, since it does not count because there is no real interest.

Textiles.—Sewing and weaving come under this head. The process of sewing is interesting to all children, but its possibilities in Kindergarten are restricted by the fine muscular co-ordinations it ordinarily demands. Whenever it is used, the materials should be coarse in order to insert, so far as possible, large crude work. A box of cloth scraps, and a rag doll for each child offer excellent opportunity for experimentation. At first the garments are sewed on the dolls and the stitches are large and inexact, but later the need for better garments is felt, and a pattern is necessary, in order, as a child once said, "that we may not waste the cloth." Clothes are then made that can be put on and taken off. The cold weather suggests the need of blankets for the dolls' beds and cradles, the ends may be overcast with wool. Many Christmas presents, as sachet-bags, pin-cushions, dust-cloths, can easily be made. There are costumes to be planned and made for the children's plays, such as an American Indian costume fringed and decorated, a knight's costume for a tournament, which includes a cape, shield and plumed hat

Every opportunity for initiative, choice of materials, taste in colour, and originality in design should be given. As in the case of sewing, it is questionable whether much weaving should be attempted in the Kindergarten, on account of the prolonged effort which most projects require and also because the nature of weaving is such that execution must be much more accurate than is required in any other form of children's work. Because of this, paper weaving should be mostly omitted.

These are a few of the possibilities of handwork with young children, meeting the requirements of child psychology and hygiene, and demanding of the child his interest, effort, and reflective thought.

If the Kindergarten desires to remain a vital factor in the general educational system, it must be consistent with its principles, for "education is no longer a divorce from, but an identification with life."

CORRIE GORDON.

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COLLEGE ALGEBRA

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BY

K. R. RAMASWAMI AIYANGAR, M.A., L.T.,
Professor of Mathematics, College of Engineering, Madras.

Srinivasa Varadachari & Co., Madras.

STUDIES FROM A KINDER- GARTEN WINDOW.

II.

DEVELOPMENT NEEDS FREEDOM.

I am as free as nature first made man,
Ere the base laws of servitude began.—DRYDEN.

IN the consideration of most of the problems of human life, a frequent and very valuable analogy lies in the plant-life around us. Both man and plants are but different products of one harmonised Nature. While the life of plants is unconscious, the life of man gets to be conscious at quite an early stage. Still there is a stage in man which may be said to be unconscious. It is the stage of childhood when the powers of man are being gradually drawn out to be matured into the strength of manhood; and it is during this stage that a proper appreciation of the world of plant-life is calculated to be of value to us, in guiding us about the care of the earliest stage of man.

In childhood, the human faculties are of the faintest strength and some of the higher faculties do not exist at all—they appear only at a much later stage. Self-consciousness is not in babies, and Reason, as Rousseau says, is only the goal of the education of children.

Reason implies maturity and is a complex faculty of man. The early education of man cannot proceed on the presumption of reason in the child. It will have to be fashioned in such a manner as to lead gradually to the acquisition of Reason. Reason is almost the crown of knowledge and knowledge can only be the result of actual experience of life. The gateways of knowledge are the senses and a freedom to exercise the senses is essential for the development of man.

By freedom we imply the absence of authority which is interfering. As Rousseau says the words "command" and "obedience" have no place in the world of children. Obedience presumes the

possession of reason and if exercised in the earliest stage of man can only mar and hinder the development of his faculties. The life of children is like the life of plants, but with a difference. The human child is endowed with instincts. It has the instinct for self-activity, and though much less than the animal world, it possesses the instinct for self-preservation. Our theory of liberty has its necessary limitations. The child's faculties develop by exercising them constantly. The instinct for self-activity is availed of to afford scope for the exercise of the child's faculties. But where the instinctive desires of the child outrun its real capacity, it is the responsibility of the trainer to regulate them in proper channels.

The most sacred of all the endowments of man is his distinctive individuality. This never attains its full and healthy form except in freedom. The play of the child is the most important aspect of its life. The directions in which it is turned and the profit to which it is utilised, determine almost the child's future life. By the indiscreet and unsympathetic trainer the child's life may be cast into gloom and misery which may become lasting. The child's first phase of play is merely destructive and appears the most perverse of human acts. Still its judicious guidance is all the task of the teacher, and on no account should the play be visited with heavy punishment and forbidding. Let the educator of children heed to the voice of children reflected so admirably in that rare treasure-house of child-lyrics—Tagore's *Crescent Moon*. The child is perpetually tearing to pieces large sheets of paper and when taken to task for making such a reckless waste of paper, the charge is returned that it is only the adult man who stains paper with ink, that is guilty of waste. Yes, the tearing of paper was a means of passing from the outer to the inner consciousness to the growing mind of the child, and it would be brutal vulgarity to

wrest the paper from its little active hands on the score of needless waste.

There is a Sanskrit text commenting on the different stages of man which throws significant light on the psychology of the child. It says: Till five years of age man shall be treated as a king, till sixteen after it shall be disciplined as a servant, and after it shall be admitted as a gentleman and friend. The period of childhood is thus associated with royalty. The elder does not rule the child but the child so to say commands the elder. Could then be a more eloquent plea for freedom for children in order to let their faculties develop to the best advantage? And in the Christian Scripture also the children are greatest in the kingdom of God.

That freedom needs development is a principle of far wider applicability than in the education of children. Applied to any aspect of life, and to any dimensions of it, it is essentially true. The greatest thinkers have formulated it in the realm of politics. Nations have attained progress in all branches of life only while breathing in the freedom of a proud civic citizenship. Genius has always blossomed only in the fresh air of liberty. What is true of the life of a nation is reflected in the life of man and the life of man is reflected in the play and life of the child.

P. R. KRISHNASWAMI.

In the Press.

FOURTH AND REVISED EDITION

OF THE

PRINCIPLES AND PRACTICE OF BOOK-KEEPING

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XXII

THE STUDY OF ANIMAL LIFE.

I

ONE of the chief improvements effected in education in our country in the last decade or two has been the comparatively larger attention paid to Nature study. A good beginning has been made, no doubt, but a good deal more yet remains to be done.

Plant life has on the whole received greater attention than animal life. Botany is a subject of the C. group under the S. S. L. C. regulations, though it has not yet been introduced into a sufficiently large number of schools, perhaps, on account of the difficulty of procuring properly qualified teachers.

Any way, the study of animal life is far from popular. In the first place there are very few Indian boys who have a healthy love of out-door excursions, so necessary for this sort of study. We cannot hope to have in our schools in the near future such enthusiasts as the 'Madman' of Rugby School, nor even an Arthur, the nearest approach to the Indian school-boy. Arthur, in spite of his studious habits, cannot help taking part in Martin's bird's-nesting excursion.

To add to this natural lack of interest, the religious notions in which our children are nurtured from infancy create in them an aversion to handling animals. Teachers too, who in their childhood have imbibed such scruples, cannot easily bring themselves to teach this subject.

No one would advocate a ruthless destruction of little animals in the name of Nature study. If fact, it is good that the sentiments of children are respected, and that they are taught not to kill the specimens they study. But they should certainly be made to observe living things at close quarters, and even handle them, if necessary, under the guidance of the teacher.

Again, Indian teachers have no suitable books to guide them regarding animal life. Those now available are of three sorts: (i) Treatises on Zoology which deal a good deal with internal details of Anatomy or Histology, and, as such,

do not interest the lay reader, (ii) Works on natural history like Cassell's or the Royal, which are very exhaustive but far too unwieldy for the average teacher, (iii) Handy pamphlets written by expert teachers in England for English children. These are written, most of them, in beautifully chatty style, and the treatment is splendid. But the specimens treated of, are, in a good many cases, foreign to our land.

Animal life is subject to such marked local variations that it is impossible to write a book which would be handy, and yet embrace all sorts of fauna. A chapter on jelly-fish may interest a teacher in a coast town but would not be of any use to one a few miles inland. Again, in coast towns and in those having brackish water, typical fresh water animals cannot easily be procured. In a town like Vizagapatam, for instance, it is very difficult to obtain a fresh water leech.

The best course, then, would be to touch upon the specimens that can easily be had in different places in the Presidency, and leave it to the teacher to omit those which cannot be had near about.

Though, as a general rule, living specimens should be studied during Nature lessons, the teacher would do well to have a museum collection of specimens bottled or otherwise preserved, first for exhibiting interesting animals of neighbouring localities; and secondly, for handy reference during revision, when, perhaps the things originally studied may not be in season and readily procurable; and thirdly, to help the silent observation of pupils outside regular lesson hours, preserved and motionless specimens being much fitter subjects in a way than living ones, which may be studied during lessons and out-door walks.

As for the syllabus it is better to arrange it on the concentric system, on the lines humbly suggested below. In the Primary classes a limited number of lessons may be given on animals with which the average child is expected to be most familiar. Observation should be confined to the external features, habits and environments of the animals studied, and should

ordinarily be done with the naked eye. Very rarely a powerful hand-lens may be used by the teacher.

In the lower forms other animals similar to those gone over in the previous years may be studied. The specimens should be so chosen as to illustrate, if possible, some interesting phenomenon of animal life, such as parasitism, protective colouration, mimicry, sex colouration, metamorphosis and the like. The boys themselves may be made to use hand-lenses, the teacher supplementing their observation by an occasional demonstration of his own.

In the upper forms, the subject may be treated in greater detail. At present, however, it can only be brought under the head of Elementary Science, a very elastic name which is made to include a heap of other sciences, Physics, Chemistry, Human Physiology, Meteorology and what not! If ever it comes to be given independent recognition under the O. group, it ought to include some broad study of internal structure involving dissection (by the teacher at least, though not by the pupils), so as to lead the pupils on to such higher principles, as the basis of classification; geographical distribution and the like. Evolution should, however, be reserved for study in the College classes.

The following outlines of treatment are offered by way of humble suggestion. The teacher, as has been remarked already, would do well to omit such lessons as cannot, for want of local specimens, be effectively taught. In this respect I make bold to suggest also the desirability of co-operation between brethren of the teaching profession in different localities, by way of exchange of specimens.

Scientific names are given below for the main groups of animals. They are on no account to be hammered into the minds of boys. They are solely intended for the guidance of the teacher, in referring to standard works on Natural History, which he is recommended to consult.

With apology to my scientific brethren, I have avoided the term 'chordata' and stuck to

the somewhat old-fashioned expressions 'vertebrata' and 'invertebrata,' because the animals, other than vertebrates, that come under the 'chordata' (viz., the Urochorda, Adelochorda, &c.) are somewhat out-of-the-way forms, not of much interest from a popular point of view.

Primary course:—

Invertebrata. (Vermes): Earth-worm. వానసాను, గుర్రకొడుమి.
(Mollusca): The land snail. నల్ల గుర్రకొడుమి.
Shelled animals
(Arthropoda): Prawn. రొయ్య, గర.
animals with jointed feet.

Millepede. రోకటిబండ, మరబండ.

Running spider. సారెపురుగు, ఎడమకాణి.

Cockroach. బొడ్డెంక, కరప్ప.

Vertebrata. (Pisces) Fish. Fresh water fish. చేప, మీన.
Amphibia Frog. కప్ప, తలబా.
(Reptilia) Lizard. బల్లి, పలవ.
Reptiles
(Aves) Fowl. కోడి, కొక్క.
Birds
(Mammals) Cat.
animals which suckle the young Dog.
Cow.
Horse.
Squirrel. ఉడత, అణిపిన్న.
Bat. గబ్బిలు, ఉవ్వబా.
Monkey.

Lower Secondary Course:—

Protozoa (single-celled animals). Demonstration by the teacher of a drop of dirty water under the microscope to prove the existence of these minute organisms, some of which are fatal to man.

Vermes. Leech. To illustrate parasitism. జులక, అడమి.

Mollusca. Fresh water snail. To illustrate aquatic life.

నీటికర్ర.
Fresh water mussel (an instance of a bivalve shell).

అరవీడు.

Arthropoda. Crab. పీఠ or ఎండ్రకాయ, కంబు.
Centipede. శ్రీ గుర్రకొడుమి.
Scorpion. శేలు, కేదే.
To illustrate defence by poison.

Garden spider. To illustrate the different kinds of web.
Cobweb-spider.

Butterfly. నీలకంఠులక, తత్తుకొడుమి.

Moth. To illustrate colouration, metamorphosis, &c.
Mosquito. చాచు, కొక్క.

Bed bug. To shew the degeneration due to parasitism.

White ants. As an example of social insects.
చెడపురుగు, కలెరబా.

Honey-bee. Do. do. also to illustrate the use to man.
తేనెటీగ, కేదే.

Pisces. Shark or Dog-fish. To illustrate colouration, —teeth, &c.
Fish. చొరచేప, కొక్క.

Sole fish. To shew adaptation to life at the sea-bottom.

Amphibia. Frog. To illustrate metamorphosis.
Toad.

Reptilia. Blood-sucker. To demonstrate sexual colouration.
కొండ, కొణ్ణ.

Snake. To demonstrate atrophy of limbs due to life in burrows.

Land tortoise. To demonstrate the peculiar skeleton and retractile head and limbs.

Fresh water-tortoise. Do. do. also the adaptation to aquatic life.

Aves. Fowl. To shew the degeneration due to association with man. Sexual colouration.

Pea fowl. To shew sexual colouration.

Kite. To shew the special features of a bird of prey.

Crane. To illustrate the adaptation to wading habits, also migration.

Duck. To illustrate the special features of a swimming bird.

Parrot. To illustrate the special features of the parrot race.

Mammalia { Tiger Jackal. { To show protective markings. { The special features of carnivorous animals are to be noted.

Cow. Buffalo. Horse. Ass. Pig. Goat. Sheep. { To show the special features of herbivorous animals; also uses to man.

Elephant. To show the need for the trunk; also use to man.

Squirrel. To illustrate the dentition of the rodents.

Rabbit. do. do. Rat. do. do.

(Danger to man as a carrier of disease.)

Bat. To study its adaptation to flight.

Monkey. To study the points of resemblance to man.

Upper Secondary Course—Since this course is intended to be the most exhaustive of the three, it is proposed to take it up in detail in a series of subsequent articles.

Before concluding this article I should again like to lay stress on the importance of a systematic study of animal life, not only on account of its intrinsic interest, but also on account of the special relation that most animals bear to man. Some are friends of man. They minister to his convenience by supplying food, by yielding products of commercial importance and in several other ways. Others are his enemies, causing harm, either directly by poisonous bites and the like, or indirectly by causing disease, or carrying infection. In fact, in this last respect the smallest known animals are his most deadly foes. Some destroy his crops or cause other damage to him. An intelligent study of animal life should, therefore, form an important part of a well-regulated scheme of Nature Study.

B. PATTABHI RAMAIA.

KINDRED GLEAMS.

1. Stars in the sky,
Stars upon my wall,
Stars beside me,
Stars within me;
What are these stars
'D you like to know?
I'll tell you what.
2. Stars in the sky
Are bright shining things;
They're lamps of Nature;
They're twinkling lights,
Twinkling overhead.
3. Stars upon my wall
Are but patches of white,
Chequerings bright
Cast by the croton leaves
Before my lantern light.
They too twinkle and quiver,
They too tremble and shiver,
When the wind moves the leaves,
The croton leaves before the light.
4. Stars beside me,
They are jewels of my Love,
Of gold and of worth,
Of merit and of mind,
Of head and of heart,
Of brain and of breast,
Gems that tremble and quiver,
That twinkle and shiver,
That transfuse with light
The chamber of my heart,
The roofs of my hall,
Nay, the universal dome.

A FEW THOUGHTS ON CRANFORD.

5. Stars within me,
They are gleams of hope,
Little shining things,
With little tiny wings,
Flying from the Pandora's Box
Of my heart and my mind;
Faint gentle sighs,
Quick leaping fancies
Of hope and of fear,
Of joy and of grief,
Of doubt and of gloom,
Tremulous vague guesses,
Yearning eager wishes,
Enduring longings,
Equivocate Throbbings,
Swift pulsations,
Giddy gyrations.
Some are double-stars,
And treble-stars,
And hazy nebulae,
New thoughts leaping,
Old thoughts dying.
There's also a Milky Way,
The backbone of my Faith
That groups all my thoughts
And sustains my frame.
These also tremble and quiver,
Twinkle and shiver;
But which shine most,
Twinkle most, shiver most,
Tremble most, quiver most,
I leave you to judge,
O Reader, I leave you to think!

N. RANGARWAMI.

CRANFORD is the imaginary name given by Mrs. Gaskell to Knutsford in Cheshire near Manchester, where she was brought up by her aunt in her infancy and youth. Her early impressions of this lovely place had sunk in her heart and when in ripe and mature age her powers burst forth, she immortalized them in these sketches. The incidents in the book, therefore, are not altogether drawn from imagination, they rest, on the other hand, on a substratum of facts embodied in the events which were known to the author in early age. There is no doubt, however, that she has touched the dull and arid history of the place to life by the warm breath of her tenderness and imaginativeness. It is not ordinarily, that men absorbed in the serious business of life, find the time or inclination to hear of the happenings, i. e. the politics of an obscure station, in a country, incidents which in themselves throbb the hearts of the residents thereof. But it is the function of literature to reconcile the differences between great and small, by securing the latter the affectionate attention and the larger sympathy of the former.

Literature, like other arts, proposes to universalise and introduce into the thoughts of men the benefits of an advanced republicanism. It draws the ends of the world together. If it be the mark of genius to adjust nicely the relation between the great and the common place, by imbuing each with the qualities of the other, it must be said, without any fear of contradiction, that Mrs. Gaskell has found an abiding place in the hall of fame. For, the chief distinguishing peculiarity of her neat, little work, is the almost instantaneous and unquestioned sympathy she is able to enkindle in the hearts of her readers for the men and affairs of that odd country town: nor have the odd and quaint features of social and domestic life of that spot any thing to do in winning our attention. There is no doubt of the fact that they excite almost a boisterous curiosity and enthusiasm in us, but these feelings are too

ephemeral to induce us to vote whole-heartedly for the novel.

Deeper consideration reveals to us that the unique greatness of the author consists in her naturalness and humanity, her eager and passionate grasp of the realities of life, its joys and sorrows, and the almost interminable play of light and shade which make up for most men, human existence; what is there, that should mark one out as great for possessing this understanding? Is it not an experience in the consciousness of every one that life is a "pendulum between a smile and a tear," whether everyone is able to put it in so many words; why should the artistic expression given to this universal experience of humanity extort love and admiration at the hands of men?

In the region of the arts that grow up under heaven's inspiration, mere reasoning has no right to enter. Men who stand surrounded by a glorious scene in nature never question themselves why their hearts should go out in eager response to the joyful feeling of excitement roused by it. Precisely the same with works of art, stamped with genuineness, free from traces of affectation and triviality; art is near to nature, near to life; yet it is distinct and separate from it. Like the lotus whose roots are in the mud, but whose soft petals rise clear above the water, filling the air with fragrance, art has its roots deep down in the heart of nature, animate and inanimate, but by its sweet flowers and ripe fruits charms and nourishes the human heart. Art clarifies and refines the dross of human experience. Every one whose nature is stirred by a picture or a fine poem or a tune in music, is, so far as the mental experience is concerned, in the position of the artist himself; he enjoys almost the same degree of bliss; he suffers the same agonies. Like mercy, it blesseth him that gives and him that takes.

Mrs. Gaskell, is quite strong in her own element, in representing to readers their own nature in other forms and under other names. One thing which greatly favoured her delineation was her tender and delicate feeling. The

out of the way, the tragic and appalling experiences of life pass her by. She is too soft to make her readers' hearts knock at their ribs over such incidents. Clouds disfigure the clear and sunny sky under which her creations stand. But they are not so portentous as to send from rock to rock rolls of thunder. An occasional rumbling may be heard, a stray flash of lightning dart across our vision; but we are never under the driving shower; such as it is, she is not asking us to believe that everywhere human experience is tame and unexciting. But never for once does she fail in the confidence and the instinctive assurance of sympathy with which she takes the reader in hand. We may say, even at the risk of a repetition, that in her humanity her affectionate tender sympathy, lies her most characteristic excellence.

It is usually urged against the novel that it lacks in a certain continuity of incident, an unbroken and elaborate plot so essential to fiction. This is supposed to be the back ground against which every character stands. The contention is not altogether baseless, as a cursory glance will reveal that it is written in rather a rambling fashion.

To hold the readers' attention by the grandeur and complexity of the plot, to enable him to realise in fulness the intellectual pleasure of looking at an artistically constructed whole, it is necessary that the incidents which the book relates should be perfect both in continuity and unity. This aspect of a novel is for instance seen almost in its perfection in the writings of Sir Walter Scott. Who that has read even the least significant of his works could question his superiority in this regard. Indeed the glory of plot construction is so uniquely a gift of Scott's, that even in his poetic endeavours we do not miss this element of his greatness; but perhaps also find this a drawback to poetry. Even in the works of small writers and of women authors in general, the absence of a continuity of incident is not so conspicuous.

Our story consists only of a few lively fragmentary sketches of Cranford life and society; it does

not take up the life-history of a character or characters and by their representation make Cranford Society tell its own tale. Characters come on the stage for a while and sufficiently impress the on-lookers with their outlines; but no character dominates our mind so strongly as to create a full picture, with perhaps the single exception of Miss Matty. We catch a glimpse of the sweetness and homeliness of one, the irony and the pungency of another, the adventure and practical joking power of a third, or the quixotism and the unaffected plainness of a fourth. But never for once do we miss those general features of social life in that town, at once odd and endearing, rigid and hard, without being indelicate and discourteous, formalistic without hatred and antipathy, self-governing and self-sufficient without immodesty and violence, light-hearted and gay-spirited without being vulgar, and above all economical without being repellent. Indeed these general features of Cranford social life, too numerous to mention and too quaint for probability are all that constitute the singleness of aim and the unity of purpose lying behind the novel.

It should be a mild and pardonable exaggeration to say that Cranford with its "genteel society" forms a beautiful whole. Every conspicuous member of its society exhibits such general peculiarities of temper as invest the whole town with a certain life and vivacity; and against this common background stand forth in clear outlines the chief characters with their distinguishing traits, vivid and intense though without marked flexibility of movement.

Character delineation is highly interesting. With a few quick strokes she presents a very clear and engaging picture. Notice for instance, the introduction of Captain Brown in the novel and the amusing literary dispute through which the odd and whimsical man reveals himself to us. One might say that the picture has been drawn with almost instantaneous rapidity, yet there is nothing slipshod in it; not so hurried in movement, but in a different wise stands the character of Mr. Holbrook whose rustic

simplicity and quaint disregard of convention come upon our notice felicitously humanised by the charming episode of his life—his love-affair with Miss Matty. Circumstances both amusing and tragic arise in the novel. Everywhere they are true to life. Alarming moral issues do not spring up, and whatever may befall any one of those creations with whom we have become familiar we bid good-bye to, one and all with the best love of our hearts.

The literary art of the nineteenth century is somewhat of a representative character. In all fields of literary work there have been representative writers. In the department of the novel, a very characteristic representative writer is Charles Dickens. It is a strange, nevertheless happy coincidence that Charles Dickens and Mrs. Gaskell were concerned together in a noteworthy joint undertaking, a periodical which was edited by the former. Indeed he had been considerably attracted by Gaskell's famous production *Mary Barton*,—the most typical representative writing of hers—a work through which the author voiced forth the contentions of the capitalist and the labourer,—which the peculiar economic conditions of the age had created. The government for a very long time dared not to equitably settle the strained relations between the parties. The substance of power was in the hands of vested interests. National apathy prevailed and ignored the sufferings of the exploited labourers. The slumbering national conscience was awakened, and stirred by the writings of many men. Dickens' novels had all the one underlying purpose of proclaiming the manhood, and equality before God of the neglected and the despised in society. It was the same element of love, and sympathy for the dumb and voiceless millions in society, shining forth through *Mary Barton* which had drawn the most indefatigable upholder of the rights of the poor to the lovely heart of Mrs. Gaskell. In conjunction with her husband she had spent some years of her life in relieving the misery of the poor. Her ungrudging philanthropic service aroused sympathy in other hearts. It was therefore on a firm background of practi-

cal loving service to the poor that she stood when she at an advanced age turned her attention to the art. In the work before us, we are spared the distressing circumstances of the poor—we are not admitted here into a knowledge of the unbelieved tragedy of the submerged tenth of England. We sail through comparatively calm sea and our voyage is delightful and enchanting. But there is no error whatever of judgment, in presuming that behind the art of Mrs. Gaskell lay a deep underlying moral purpose worked out most successfully, by her and the benefits thereof realised in the immediate after history of England.

The prominent members of Cranford Society are spinsters. They have a natural aversion for marriage, based however not on any instinctive apathy which distinguishes them from the rest of mankind, but more probably on the needless complications that, one, by marriage embroils oneself with. Whether married life drives one to asperity or not may be the ground of lively discussion among the stout champions of virginity, but it certainly does not deter them from thinking seriously of marriage. The ladies who are doomed to single life bear their crosses silently; some by their excessive jocularity might make light of their slow suffering; some may be clever to hide their feelings in other ways. While others ingenuous and transparent in their conscience might make a clean breast of their whole woe by holding before our attention the numerous benefits that could be realised through marriage; nor do we notice a single instance among them of a lady holding bravely under her flag as those among the Catholics who believe in the spiritual efficacy of absolute continence are supposed to do. Curiously enough with the life of almost every spinster in Cranford, some love affair is connected and the alliance falling through, somehow, they expiate their sin, as it were, by an undaunted stand for virginity.

Mrs. Gaskell would not have been true to life, had she ignored to make dim relations at least, now and then of the innermost minds of these ladies. She puts into Miss Matty's mouth certain words which unconsciously sum up the whole gist of the teaching with regard to this. In Miss Matty indulging in reveries of marriage, and dreaming tremblingly of children to kiss and fondle with, we have the pith of the whole philosophy relating to this question. Most people must realise their destiny in life through marriage, primarily. Like soldiers who pick up the elements of fighting within entrenched and sheltered walls before they bravely jump at the cannon's mouth in the open field, men have the advantage of the fire side, the family roof, wives and children to exercise their affections upon, before they can venture out into the open field of celibacy with its numerous trials and temptations and in marriage the ruling passion, especially with woman is for offspring. It is in the wise ordering of nature that the instinct arises in the female heart with irresistible force. Moods may visit her, now loving, now hating, her own darling. But nevertheless it is true that motherhood supplants wifehood. That seems to be the pathway of experience for woman. How highly comforting therefore, that Mrs. Gaskell through the medium of fiction gives chance birth to these lessons in life.

If Mrs. Gaskell failed to idealise love between the sexes and win for it the immortality that has never been denied to it in Literature; it is not that she possesses a partial experience. The tender touches of conjugal passion, unrealised though it may be, revealed occasionally through the novel are a sufficient proof of the depth and genuineness of her experience. Heroes and heroines commanding the unquestioning sympathy of the reader are not before us consummating and solemnising their affection. Three marriages take place in the novel, but of none of them can

we say that the passion rises to literary grandeur. In the one where it might have the course of affection stops short at the first obstacle. Mrs. Gaskell's portrayal of love is much more human and natural. Who can say that the author by leaving in the middle the proposed alliance of Miss Matty and Mr. Holbrook under the circumstances related by her, is not presenting before us nobler features of their character.

P. V. AGORAM AIYAR.

NUMBERS.

"*Mathematics is the queen of sciences and number-theory is the queen of Mathematics.*"
—GAUSS.

THE subject of this paper is 'Numbers.' Plainly, then, the first question that one is tempted to ask is: 'What is a number?' What is required at this initial stage is, not a rigorous precise definition, but only a provisional one to start with. Such a provisional definition can be easily fished out from the replies that people who are not serious mathematicians would give to the question, 'What is a number?' Here are some of the replies, I was able to collect:—

- (1) A number is what we use in counting—(A History graduate).
- (2) A number is a conventional quantity—(A History graduate).
- (3) A number is the name given to a definite quantity which we want to express—(A Natural Science graduate).
- (4) A number is the symbol used to express a measure of things—(A Mathematics graduate).
- (5) A number is a combination of units—(An engineer).
- (6) A number is a device for identifying quantity—(A doctor).
- (7) A number is what we use in answering the question, 'How many?'—(A mail-sorter).

These are some of the replies I got from laymen, i.e. persons that have not had much practice in the mathematical way of thinking. But it is very interesting and curious to note how near they are to professed mathematicians in this matter. For, compare their replies with the definitions given by persons like Euler and Newton.

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(1) Newton: Number is the abstract ratio of one quantity to another quantity of the same kind.

(2) Euler: Number is the ratio of one quantity to another quantity of the same kind, taken as a unit.

(3) Glesham (author of a recent textbook on Arithmetic): A number is that which is applied to a unit to express the comparative magnitude of a quantity of the same quality as the unit.

A review of these replies indicates that the conception of 'Quantity', 'Measure of Quantity'* and 'Unit of Measurement' is fundamental. These conceptions evolve successively one from the other and they are all involved in the formation of the number-concept.

This led me to consider the question as to when these conceptions come first into human consciousness—into the mind of the race and into the mind of the child. The first of these problems seems to have been investigated by Dr. Conant and the results of his investigation are given in his treatise on 'Number-concept'. According to him, among the barbarian tribes whose languages have been studied, none have ever been discovered which did not show some familiarity with number-concept. Even the most backward type seems to have had a conception of the difference between *one* and *two* or, at least, between *one* and *many*.

As for the child's mind, my own observation of children between two and five years led me to the conclusion that, in no case, do children, between two and three years of age, put or appreciate the questions, 'How many'.

* Measuring includes counting.

and 'How much'. The main type of questions which they indulge in during that period is 'What is this?' or 'What is that'. But, between three and four years, children begin to ask 'How many' and 'How much'. However, they can only distinguish between *big* and *small*, *much* and *little*, *one* and *two* or *one* and *many* and so on. But, roughly speaking, after the fourth year, children get into what may be termed the *counting fit*. A collection of discrete but similar things tempts them to count. How often do we see sharp children beginning to delight their parents by standing up and going round to count the members of their family, when they are all assembled together for supper, say! In fact, this tendency to count begins so early, that Galton, the great British Eugenist, believed it to be distinctly hereditary.

And so the conclusion is that the idea of quantity comes to the child very early in life. Then comes the desire to *measure* (the process of *counting* included) to group and to classify the groups or aggregates of things according to their *many-ness* or *quantity*. And numbers are something like labels by which we distinguish these classes. In precise language, "A Number is a characteristic of a class of equivalent aggregates," as Prof. Hobson would put it.*

* Cf. 'Theory of Functions of a Real Variable' by Hobson. An aggregate is a collection of definite distinct objects which is regarded as a single whole. Two aggregates are said to be *equivalent* to one another, when their elements can be made to have a one—one correspondence. Two aggregates, say A and B, have their elements in *one—one* correspondence, if to every element of A, there corresponds one and only one element of B and vice versa, &c. If a room contains some chairs and some men, if each chair can accommodate one and only one man and every man, in the room, is seated in a chair, then, there is a *one—one* correspondence between the aggregate of chairs and the aggregate of men, that are in the room. And these two aggregates are said to be *equivalent* and the two aggregates may be said to be characterised by the same 'Number'.

Thus, to start with, by numbers, we mean, what mathematicians would call positive integral numbers. That is what the races first meant by numbers and that is what the child is led to believe to be numbers.

Before going further, reference may be made to an obsolete method of initiating infants to the cult of number-work. Some twenty or thirty years back, infants used to sit on the laps of their grand-fathers, I suppose, and learnt by rote the first hundred numbers, addition tables, multiplication-tables, &c., without being given any opportunity for handling concrete things. After the affiliation of psychology to the science of Pedagogy, this ancient method has been superseded by the new method, which introduces numbers and numerical operations by presenting concrete objects in such a way as requires parting, grouping, wholing, &c... A full discussion of this topic is given in Chapter V of 'The Psychology of Numbers' published in the International Educational Series.

To go back to our main stream of thought, after the evolution of number-concept, comes the evolution of the four fundamental Arithmetical operations, viz., Addition, Multiplication, Subtraction and Division. The first two operations when performed on the positive integers lead only to positive integers. But, as is well-known, many of the results of the operations of Subtraction and Division lead one astray. In fact, 5—8 is impossible. That is what exactly a boy of the third or fourth standard says. If you ask him 'ஐந்து எட்டைக் குறை' he says, immediately, 'இயலாது'. He means that the operation is impossible. And that is what the races thought for a long time. Similarly, if you

ask a boy to divide 3 marbles among 4 men, he is baffled.

However, although the races, for a long time, thought that the operations were impossible, they seem to have been, later on, led to imagine that it would be convenient for them not to say that such operations are impossible, but to say that such operations lead to *exceptional* numbers, tacitly assuming the existence of two classes of numbers—natural and exceptional. Various sets of examples led to various such exceptional numbers. After some time, a genius comes forward, studies these exceptionals, recognises a certain kind of similarity among some of them, classifies them and gives a name to these classes. In this way, I imagine, men first began with what we now call positive integral numbers, calling them numbers simply, then invented a name for the exceptional numbers brought in by division and called them *Fractions* and in contra-distinction called their 'original' numbers *Integers* and later invented a name for the exceptionals brought in by subtraction and called them *Negative* numbers and in contra-distinction included their original stock of numbers under the name of *Positive* numbers.

Historically, the conception and the incorporation of *fractions* came very early. It is said that the idea of *fractions* has been developed and presented in the earliest Arithmetical treatise, we possess, of the Egyptian Ahmes, who flourished about fifteen centuries before Christ. But, the conception of negative numbers comes rather late. The rules about the operations with negative numbers are given in unambiguous terms, for the first time, only in the 'Ganitha Sara Sangraha' of Mahavira.

charya, who flourished about seven centuries after Christ.* This fact is of great educational value as is well-known. Whereas fractions could be taught to children of nine years, it is not possible to teach them about negative numbers till they are at least thirteen years old.

Now, going back to our topic, some time later, men began to recognise the possibility of introducing a pair of new operations, viz., that of raising a number to a power and that of extracting its root. The first of these never leads us astray. But, the latter, which is a sort of inverse—and the inverses are always troublesome—does lead, in most cases, to impossible cases or rather to exceptional numbers. These exceptionals are of two types, viz. roots of positive numbers and roots of negative numbers. The first of these types was incorporated into the domain of numbers even in the time of Euclid and dubbed as *Surds* or *Irrationals*, e.g. $\sqrt{2}$, $\sqrt{3}$, &c.,...the all-ready existing stock being called *Rationals*.

But the other type of numbers, it is curious to note, seems to have been for long neglected. It was only very recently that they were approached, analysed, sifted, classified and baptised. The revolution brought about by the admission of these exceptionals into the domain of numbers seems to have been more keenly felt and resisted than that of any of its predecessor exceptionals. It is really interesting to reflect why it is so, seeing that they all have a similar logical genesis. But, somehow,

* Probably, the assertion of J. W. Young of the University of Kansas that "The use of negative numbers does not appear to have been definitely established until about the time of Descartes (1596—1650)" has reference only to the history of European Mathematics. Cf. page 108 of *Fundamental Concepts of Algebra and Geometry* (1911).

so much has been the resistance or rather the reluctance of mankind to recognise these exceptionals, that it was only with great difficulty that they were persuaded to call them, at least, by the name of *Imaginary numbers* and have, in return, the pleasure of calling their original stock of numbers the *Real Numbers*. e.g. the square root of -2 , i.e., $\sqrt{-2}$ is an imaginary number and is written $2i$. In fact, $\sqrt{-a}$ can be written as $\sqrt{a} \times \sqrt{-1}$ and for $\sqrt{-1}$, we use the symbol i , the imaginary unit.

These successive exceptionals have been included into the category of numbers, because, they all happened to obey the laws of Arithmetical operations. But, a true mathematician does not like this mode of arbitrarily extending the concept of numbers, whenever a need arises with or without notice. But, on the other hand, he is inclined to examine the nature of his material and the tools, i.e. the operations with which he has to work upon them and decide once for all, if possible, if there is a limit to this extension of number-concept and if so, has the limit been reached or can it be reached at all. But this desire comes only very late in man. In fact, it was only about the beginning of the last quarter of the last century, that the giant mathematicians of the day, Weierstrass, Cantor, Dedekind, Heine and others were directed to this consideration by some other force.

We have, now, a definite question to answer. Is there any end to the extension of number-concept? How is this question to be answered? What have mathematicians done to answer it? Invented a calculus? Yes, the mathematicians are really very resourceful in the invention of calculuses and, in this case, they made several attempts to invent a suitable calculus and finally,

decided that the calculus of sequences is the best calculus suited to the business on hand. Cantor is the mathematician that invented it. He is of German origin. His theory was published in the *Math. Annalen*, Vol. V (1872). Dedekind invented his *Theory of Sections* to meet the same purposes about the same time. A short account of both the theories are given in the first chapter of Hobson's '*Functions of a Real Variable*.' By means of either of these theories, it can be shown that the system of *Real Numbers* is self-sufficient with respect to the six fundamental operations, division by zero and extraction of the root of a negative number being excepted.

The class of *Real Numbers* arrived at by either of these methods includes a good many numbers other than the rational numbers and the surds, we have spoken of. In fact, it includes, in addition, a host of new numbers like π , e , $\log 2$, $\log 3$, &c.—which are known as '*transcendental*' numbers. The fact is that there are operations which are not necessarily algebraical and which, hence, lead to a host of fresh numbers. Legendre was the first mathematician to smell them. He expressed a doubt such as, 'Is it not possible to find numbers that are not roots of an algebraic equation, with a finite number of terms which rational (which comes to the same thing as integral) co-efficients?' And the doubt became a certainty when Liouville proved, in 1844, the existence of non-alg. numbers and justified the division of Real numbers into *algebraic* and *transcendental* numbers. The beauty of Cantor's Theory and of Dedekind's Theory consists in the provision made for all these classes of transcendental numbers, in the definition of a Real Number.

S. R. RANGANATHAN.

NATURE STUDY IN INDIAN SCHOOLS.

AS the aim of a perfect education is to make man realise the Divinity in him by showing his relations to God, Nature and Mankind, it follows that the Study of Nature or the whole of the outside world around us must occupy a large position in any scheme of liberal education. It is proposed therefore to deal here with the scope and methods for such a study, its objects and aims; after this general survey is attempted a criticism of the present position which Nature-Study occupies in the schools of this country and a few suggestive hints are thrown out for practical application.

I.

'The earth and they that dwell therein' is in the broadest sense of the term the subject of Nature-Study. This point has to be borne in mind carefully, because in common parlance Nature-Study has been confined to mean the study of a few plants and animals only. As a matter of fact, Nature-Study includes the study of matter as well as energy; of matter in Physics and Chemistry and the applied sciences of Geology, Mineralogy and Physiography; of energy in the life of animals, plants and men, in Biology, Botany, Zoology and portion of Geography.

The range of study being thus unlimited, it is the more incumbent on the teacher to present to his pupils only the very elementary and obvious facts concerning these sciences. For instance, in the Infants' School a few interesting facts about the daily life of the pet animals and birds will do; the children may be made to observe them day after day so that by sheer recurrence of the same experience, it may ingrain itself into their mind. Also a few isolated facts about their school-garden, about the surface of

their play-ground, and the town or village in which they live, may be presented to them in a delightful way.

In later childhood, when we see the beginnings of classified ideas, when we note that the child perceives external phenomena, not merely in a distracted way, but with some attention and care, we may with advantage go from particulars to general laws, and tell the child that the isolated facts he has been hitherto observing are but so many examples of a general order of things to be met with everywhere in Nature. Longfellow's little hero may be taken as a type of what a child ought to know at this stage:—

Then the little Hiawatha
 Learned of every bird its language,
 Learned their secrets—
 Where they built their nests in summer
 Where they hid themselves in winter.

The child should now not only study things, but attempts should be made, however crude, to record the results of such a study. The work in the main should be practical; animals, plants, etc., being directly studied, and nothing being left for the imagination to fill up.

As the child advances in age, and grows into boyhood (or girlhood) we may profitably begin the study on a regular and scientific basis: comparisons and contrasts may be easily deduced: boys (and girls) are enthusiastic about the collection and preservation of the various specimens referred to in the classroom: and as this is the first formative period of taste, a deep love of Nature may be easily instilled into their plastic minds—a love which may be fairly expected to remain with them throughout life. Indeed their enthusiasm is so great at this stage that they are ready to devour such less palatable sciences as physiology; but this is an extreme instance; and need not be followed unless the pupils show a distinct aptitude for the pursuits of Natural Science.

II.

On the subject of Methods of Nature Study, it must be confessed that there is room for difference of opinion, and that different methods have to be adopted in different localities and under different circumstances. But a few general principles may here be enunciated as well as elsewhere. The first point to note is that Nature-Study classes should not be conducted in class-rooms. It would be a misnomer if we go on talking about plants and leaves, about the heavenly freedom of the lark and the nightingale, about the majestic grandeur and the delightful shade of the banana and such other things in our limited atmosphere of the four-walled class-room. To avoid this, the teacher should as a rule take his pupils out into NATURE for Nature-Study; the environment should agree with the object of the lesson taught. Even if there are other difficulties in the way, the children should be taken out at least into their school-garden: for, there is no better place to observe the atmospheric effects of sun and shade, of wind and breeze, of calm and storm.

Secondly, short excursions and walks should be arranged whenever possible; the teacher accompanying their children just as a father or an elder brother with the younger members of the family. Such excursions would enable the boys to survey their native district as a whole; opportunities are here afforded to ascend the summit of a mountain or a ridge of hills, and to follow the course of a rivulet from its source to its mouth; and thus to see in their native places the products of mountain, valley and river. The boys should be made to note in the higher regions the former home of the stones they found in the valley and river below; they should notice animals and plants in their natural life, some basking in the sun and drinking in light and

warmth, others hiding in the shade, content to remain in oblivion. This is also the best place to emphasise the way in which the abode and food of living things affect their form and colour—of how, for instance, the caterpillar, the butterfly and other insects, in form and colour are connected with the plants to which they seem to belong;—of how again, certain birds build their nests on trees whose colour is scarcely to be distinguished from that of the tree; and how as a consequence, this serves as a protection against their enemies.

The knowledge thus gained by their own experience, it is needless to say, would be far more valuable than that crammed from books and notes of teachers.

III.

The aims and objects of Nature-Study are manifold—intellectual, emotional and spiritual; and they will be considered in the order indicated above.

Intellectually, the child gains a good deal of knowledge in Nature-Study; several of the facts about the world around us may be taught to it, which even adults may not possess; and the wonderful order and harmony of the Universe must appeal to it with great force and convince it of the goodness of the world around. While taking delightful walks with the teacher and the fellow-pupils, the social instinct of the children is developed and brought into play: they find that the teacher, like themselves is a fellow-investigator into the mysteries of Nature: they keenly appreciate his lead in some affairs; and love and respect for the teacher go hand in hand with obedience and delight.

But more than this intellectual and social knowledge, the incidental acquaintance of the children with the animal and plant world, which later on develops into an intimacy with them serves to refine the pupils' emo-

tions and call forth feelings of tenderness, joy and mercy of an elevated kind. It is very touching indeed to watch the tenderness with which children take care of their pets or the way in which they fondle their dolls; and especially to the adult mind with its background of the prosaic facts of life, this spontaneous outburst is the greatest antidote against misanthropy and despair.

Secondly, if the children are allowed to take care of plants and creepers in flower-pots (or plots of garden specially set apart for them), they very quickly come to understand that without watering them regularly and punctually every day, the flowers would fade and the plants would droop; this they don't like to happen; and so they are very careful in doing their little duties correctly and to their best satisfaction. This develops their self-activity; and as they can understand the relation of cause and effect, they learn at a very early stage the benefits of industry and the evils of idleness; indirectly therefore it forms the best preparation for life; for, there can be no better preparation for life than the conviction that the inexorable moral laws ought to be obeyed without a murmur; or else the penalty must be paid in the form of sin, suffering or sorrow.

But great as are the benefits of Nature-Study intellectually and emotionally, the greatest benefits are to be derived from the spiritual point of view. Nature and Humanity being governed by the same or similar laws, a study of Nature easily leads to a study of mankind; and generalising from these two, the thought is lifted up to the contemplation of the Creator to whom Nature and Humanity are equally indebted. Thus the Universal Law that lives and reigns in all things is driven home to their minds; and the Unity that manifests itself in diverse forms as the Creator, the Preserver and the

Destroyer of all things they learn to regard with reverential awe.

Apart from this, the æsthetic delight of children is satisfied and they are thus able to appreciate any reference in Literature to the peculiarities of the fauna and the flora of their land. A piece of poetry like Wordsworth's "Daffodils" or Shelley's "Skylark" is indeed very difficult to understand for one who has not felt the Romance of Nature. Nay, what is worse, the beautiful similes and metaphors so often interspersed in Shakespeare and Milton, in Lamb and De Quincey would be falling flat on our minds and to that extent, our appreciation of the passages would be defective.

IV.

Turning now to the problem of the present position occupied by Nature-Study in Indian schools, the prospect is by no means encouraging. Several causes contribute to this deplorable condition of affairs—not the least of which is the want of appreciation by the parent as well as the teacher of the benefits of Nature-Study. A large proportion of well-intentioned people think that Nature-Study is nothing but frivolous waste of time for the children and do not encourage it at home. Secondly, the methods followed at school for teaching Nature-Study are not impeccable either; it is cramming a few points from books (not by direct observation) about plants and seeds without a knowledge of their real connection with one another; or, it is an idle loafing about the garden without aim or purpose. In both cases, it becomes a task and a drudgery—not something that can be followed with intelligent interest. Thirdly, it seems curious but it is a melancholy truth that often times the teachers who are to conduct Nature-Study classes themselves know little or nothing of the subject they profess to teach! They are not enthusiastic about their

subject and as a consequence, their example is followed by the children, more than their precepts. Nor are the teachers very much to blame in this respect: brought up under the old system when the Humanities had their day at the expense of the Natural Sciences, they have had neither the time nor the inclination to revise their ideas on education; they are innocent of the 'Training of the Senses' and similar topics; and laugh out such 'new-fangled' ideas, at the same time bemoaning that the good old days are gone—gone for ever. To make confusion worse confounded, they have very few suitable books on the subject giving directions as to their method of procedure in conducting Nature-Study classes. Being allowed to drift for themselves, even the most conscientious among them have to labour in evolving a system of their own; and except in rare cases, the results attained so far are poor.

V.

Having thus pointed out the defects in our present methods of pursuing Nature-Study, it is easy to get at the remedies for them. First of all, the teachers should be made to have a clear idea of the benefits derived from Nature-Study by means of Essays and Lectures in the various Teachers' Associations. It is wonderful to note how easily a teacher who has understood the importance of his subject and is full of fervour for it can get on with his pupils. For instance, I was present at a model lesson given by some of the Elementary School teachers at Mannargudi before the Inspector of Schools on such subjects as 'The Three States of Water,' 'Monocotyledons and Dicotyledons,' 'The South-West Monsoon', etc.; and the way in which they set about their task was simply astonishing; the children were delighted and

their beaming little faces proved it beyond a doubt. I mention this simply to show that if once they have understood the nobility of their mission, our teachers will attain to a very high level of excellence.

Secondly, the public ought to be admitted to such discussions, so that they may understand that the subjects taught at school are all calculated to advance the harmonious development of their children and that therefore they may have full confidence in the rationale of the school-curriculum: for, then and then only will they co-operate with the authorities by encouraging and satisfying the natural curiosity of children instead of cruelly repressing it as they are at present doing.

Thirdly, earnest attempts should be made (and fortunately, signs are not wanting that they are being done) towards having suitable vernacular texts in the field. It is a happy augury that the Educational Department is sending one or more of the best teachers in the Model School at Saidapet to give instructions to mofussil teachers regarding the best means of teaching these subjects. We have no doubt that these deputations are highly successful and have already led to a considerable improvement in the standard of teaching in the mofussil. We only wish for more of such things; for, as the poet says, "there can be no satiety in the sphere of knowledge."

N. R. KEDARI RAO.

THE COUNCIL OF INDIAN EDUCATION.

PARK TOWN, MADRAS,
27th September, 1916.

FROM
MR. S. RAJAGOPALACHARI, B.A.,
Joint Secretary to
The Council of Indian Education,
Madras.

To
The Secretary to
The Government of India,
Educational Department,
Simla.

Sir,
I am directed by the Council of Indian Education at Madras to bring to the kind notice of His Excellency the Governor-General in Council the following facts regarding the abnormal failures year after year in the Intermediate examinations of the local University and the steps taken by the Council to give relief to the failed candidates.

2. Previous to 1904 the failures in the Matriculation or the University entrance examination were so abnormal that Lord Curzon desired to find out the root causes of these failures and tried to improve the educational system. The local Government by the institution of what is called the Secondary School Leaving Certificate Scheme have apparently minimised these failures.

3. For three months after the publication of the Intermediate results the newspapers were full of comments about the failures. The public laid the whole blame on the University authorities. The University authorities blamed the Principals and the Professors of Colleges and the students. There was no unanimity even among the members

of the Indian Educational Service about seven members in each province to conduct these failures. the examinations.

4. The Council addressed the External Registrar of the London University whether he could obtain sanction from the Syndicate of that University to conduct the Intermediate and Degree examinations which they conduct in Colonies so as to place the candidates in the Indian Empire in the same advantageous position as the candidates of the Colonies. *Vide* letter of the Council dated 14th July 1916.

5. The External Registrar in reply stated that such a course was entirely in the discretion of the Indian Government and if they did not see fit to move he was afraid he was not in a position to take any steps to bring the matter before the Senate. *Vide* letter of the External Registrar, London University, dated the 10th August 1916.

6. The Council ventures to submit that there is a prevailing opinion in this country that the examinations of English Universities are not so stiff as the examinations of local University. All that is required is that candidates should be given facilities for improving their prospects elsewhere if the facilities offered to them in the local University are not adequate.

7. In these circumstances the Council of Indian Education at Madras respectfully beg the Government of India would be pleased—

(1) to request the London University authorities to hold their examinations in four or five centres in each of the Presidencies and of the major provinces, and also

(2) to appoint a Committee consisting of

I beg to remain
Sir
Your obedient servant
(Sd.) S. RAJAGOPALACHARI,
Joint Secretary to
The Council of Indian Education,
Madras.

Madras, 14th July 1916.

ENC. I.
FROM

MR. S. RAJAGOPALACHARI, B.A.,
Joint Secretary to
The Council of Indian Education,
Park Town, Madras.

To
The External Registrar,
University of London.

Sir,
I understand that the London University is unique in the fact that it admits outside candidates to appear for the Intermediate and B. A. degree examinations. This privilege, I believe, is invariably given to candidates in the Colonies and not to those living in places where there are Universities. However, there is a growing desire on the part of many here to appear for and take London degrees. Will you kindly obtain the sanction of the Syndicate for such a course. If this concession is granted and if the examinations are held in five or six different centres in the Presidency I have hope five hundred to thousand candidates at the least would appear for the examination year after year. This privilege is sought to be secured only for those candidates who had attended courses of studies for two years in colleges recognized by the University. These can-

didates here are not required to attend colleges again for further studies. If the Syndicate would be pleased to grant this concession the Council of Indian Education at Madras would undertake the work of popularising this movement.

I request the favour of an early reply.

I beg to remain
Sir
Your obedient servant
(Sd.) S. RAJAGOPALACHARI,
Joint Secretary to
The Council of Indian Education,
Madras.

ENC. 2.

University of London,
South Kensington, S. W.
August 10th, 1916.

Sir,

I am in receipt of your letter of the 14th July with reference to the holding of London University examinations in India. This is a matter entirely within the discretion of the Indian Government, and if they do not see fit to move, I am afraid, I am not in a position to take any steps to bring the question again before the Senate.

Yours faithfully
(Sd.) GEORGE F. GOODCHILD,
External Registrar.

To

S. Rajagopalachari, Esq., B.A.,
Joint Secretary to
The Council of Indian Education,
Park Town, Madras.

ENC. 3.

No. 1009.

Government of India,
Department of Education,
Simla, 20th November 1916.

FROM

G. ANDERSON, Esq., M.A.,
Assistant Secretary to
The Government of India.

TO

MR. S. RAJAGOPALACHARI, B.A.,
Joint Secretary to the
Council of Indian Education,
Madras.

Sir,

I am directed to acknowledge receipt of your letter dated the 5th October 1916, requesting that the London University authorities may be moved by the Government of India to hold their examinations in India.

2. In reply, I am to explain that any request of this nature which you may wish to prefer, should be submitted to the local Government.

I have the honour to be

Sir

Your most obedient servant
(Sd.) G. ANDERSON,
Assistant Secretary to the
Government of India.

LITERATURE AND RESEARCH.

Some Mile-Stones in Telugu Literature.

I. *The Age of Krishnadevaraya.*

By G. R. SUBRAMANIAM PANTULU.

The aim of this little publication is to invite attention to the merits of the Telugu literature of the sixteenth century, the Augustan Era of Telugu literature. The works of the great poets of this era have not been studied as they ought to be, and lethargy smothers any spark of enthusiasm that may be kindled. To the Telugu-speaking peoples the author addresses himself, and the thesis worked out (possibly a by-product) is that the so-called Ashtadiggajas did not all flourish at the time of Krishnadevaraya. These appear to be the main points one should bear in mind in attempting a review of the essay.

I suppose there are few critical essays in the vernaculars of South India; at any rate the popular literary essay has yet to be created. Possibly its importance is not realized, or an attempt would have already been made to create, at least the *voisin* for it. It was in a catalogue of Tamil works that I once found brief notices, descriptive and critical, which made the catalogue worth possessing. So successful was the appeal that I bought two or three of the works advertised. Would that we had more such advertisements! For to the man who knows only the vernacular there is absolutely nothing in the way of 'introductions to literature,' and it is no wonder that our general standard of literacy in the vernaculars is not high. It is the unbending attitude of the Pandit that is no doubt to blame to some extent, but there is also another evil, and that is a moral one. It amounts to this—that there are very few educated men who will do simple, unambitious work. One is attracted by the glamour of 'scholarship,' another would fain pose as a Sankrist, and so on. Take so small a matter as the writing of small readers for school use, the 'supplementary' reader, as we call it.

The author often will not adopt a simple style, but must needs introduce all the pedantry of 'transliteration' (I speak now of Tamil books), and what is worse, must needs attach at times a glossary with the meanings in *English*—must needs play to the boxes instead of to the gallery, to use a theatrical phrase! Any book then that makes a real attempt to interest the general public in vernacular literature should receive a warm welcome, and it is because the book under review sets out to do this that I have ventured to discuss it—not so much as a contribution to scholarship (for that aspect of it I am hopelessly incompetent to judge) as a work whose appearance at this time is significant.

Let us proceed then to criticize it from this point of view. One naturally asks at the outset, "If the book is addressed to Telugu-speaking people, why is it in English?—and why are Telugu terms explained in it?" I fear one can give no satisfactory answer to this question, and it surely seems that an obvious defect of the work is confusion as to its general aim. It would appear as if the author were anxious to do unambitious work (i.e. creating a taste for Telugu literature) though ambitious all the while (i.e., anxious to preserve unsullied his reputation for original research). One cannot but regret this. In fact the chief fault of the work is this dual aim, and it is the cause of all the confusion that besets one as one reads on; the crude workmanship, one finds in parts, is also due to this cause. One cannot but wish that the author had turned a deaf ear to the appeal of 'scholarship' and had contented himself with a plain, unvarnished tale. Some such plan as this would surely have sufficed—a brief account of the ground to be covered, an account of the times and the defence of his thesis, and a review of the works produced.

In spite, however, of his handicap the author succeeds in interesting his reader, and if I may be permitted a personal remark, I should like to add that a strong desire has seized me to get all

the works referred to in the essay and read them. That, I take it, is a sign of the vitality of the essay, and is at least the ground of my faith in the essay's real worth. At the same time one cannot disguise one's disappointment—in spite of the author's remark that it is only a 'general idea' he wishes to give of the progress of Telugu literature during the sixteenth century—at there not being more literary criticism and less 'research.' In fact it is only Pingala Surana who receives anything like adequate treatment at the hands of the author; for bald criticism is no great lure: soul has to meet soul, some of the fire from the author's work has to be dropped into the mind to set it ablaze, if the essay is to differ from the cram book, the 'outline of literature' of our college days. A scholar like our author, who has doubtless read all the authors he writes about, could give us fascinating glimpses into the works of the Augustan Era, glimpses which would at once send us straight to the authors and their works. Let Indians leave to Western scholars the showy type of essay with a swarm of footnotes, even if the world insists on requiring such essays from all candidates seeking recognition as orientalist; may Indians content themselves with writing a different type of essay, an essay they are on the face of it in a better position to do justice to than the Western scholar, viz., the purely literary essay which gives glimpses of the workings of a great mind as reflected in purana or drama. Surely literature has a higher function to serve than to be the hunting ground of the historian, the raw material of historical theories. When we take up an ancient classic, surely it is the fruits of the spirit we require and not the allusions that fit nicely into the hypothesis we have elaborated. The East, it is said, is spiritual; should not then its study of literature be something more than a question of dates and dynasties? Something more humanistic in its effect than chronology? Should it not rather be a search into the heart of man instead of into the dark abyss of Time? Nay, would not insight into the mind of the author shed some light on the darkness of doubt and conjecture?

I have ventured to hang this appeal on a criticism of the work under review in order to make my remarks objective, (for generalities are the safety-valves of thought). May I ask that the book be read by those of my readers who do not feel that my criticism is ill-intentioned—who realize that I aim at giving the layman's point of view, the point of view of the unsophisticated?

E. H. ANDERSON.

SLOYD.

(An introductory address to the teachers under training at Sirkar Training School, Trichur, S. India., by A. Tirumalachar, Senior Sloyd Assistant, G. T. C. & I. School, Trichur.)

Teachers under training:

I have great pleasure to meet you here to-day to welcome you for a work which forms a part of the training for which you are called now. The object of my address to you this evening is to give you a general idea of the subject and thereby to enable you from the very outset to pay the attention it deserves. The name of the work is Sloyd or Educational Manual Training. The system was organised by Herr Otto Solomon of Sweden on the principles of education founded by Pestalozzi and Froebel, and has been since then one of the highly recognised means of general education.

General education as you all know aims at the harmonious development of all the parts and powers of a human being, and when given under proper conditions, it fits a man for any walk of life. It is also called the formative or disciplinarian education. Special education aims at the training of only particular parts and faculties of a person to enable him just to earn his livelihood by doing some particular kind of work. This is also called the utilitarian or bread-earning education.

You know the object with which you are called to spend a year or more as students of this institution. It is to make you more efficient in the discharge of your work as teachers—to give you up-to-date information about the things you are to know, as also to teach you up-to-date methods of presenting them to your pupils. It is found not enough if you only remember what you were taught and how you were taught in your school days; they require a good deal of amplification and improvement. On acquiring these you will be passed for efficient teachers and be made deserving of better prospects.

You seem to observe why teachers of now-a-days are required to equip themselves so heavily and are compelled to learn such new and strange subjects as Sloyd and Kindergarten, while teachers of a generation ago

and back of that were found sufficiently well up for their work without any of these extra attainments.

The reason is this. Though education is a constant ideal, its processes are ever changing and change with the conditions of man's life. At its best, it is ever up-to-date and completes only with the evolution of man. The complexities of modern life urge the pupils of now-a-days to know more things and in fuller details than we did in our younger days. They demand a rational and thorough training of the senses, of the head, of the hand, of the heart, and of the will, so that they may acquire the habit of doing as a matter of course whatever comes to their hands, of doing it thoroughly, intelligently and efficiently, and of taking pleasure in the mere act of doing.

* We learn from History that every nation had its days of "No schools," when parents taught their children whatever they knew when the home, the farm and the field were their schools, when they were free with nature and new very much more than we do now about the realities of life and its relations—about their health, food and clothing, about animals, plants, trees minerals and their products, natural resources of wealth and happiness, and every other thing that concerned their lives. These were the sources by which they received a greater part of their education. As time advanced and civilisation grew, man found advantages in the division of labour. The days of self-help in everything were soon gone. Man that was hitherto growing his own food, making his own clothes, building his own house, tending his own cattle, and doing everything that concerned him, now set to himself only one kind of work and got his other requirements in exchange of some service or in exchange of what he produced in abundance by concentrating his attention to only one kind of work. Though this gave him sufficient material advantages his constitution suffered in endeavours to produce more things of one kind thinking that he could thereby become happier than before. A great many of his organisms and activities which in his free natural state were required for acquisitions for which he had no longer to work now, lay

dormant having no sufficient scope for their exercise. It is well known that no organism or faculty grows without exercise, that a over-worked organ exhausts itself very soon, that an organ kept from use gradually shrinks and becomes useless in time. Under such conditions body and brain do not grow uniformly, health and intellect remain poor, and passions prevail where will should reign. The natural resources of man's culture having become in time less and less accessible to him, the schools which came into existence in the division period, looked upon as places of correction and rectification. To meet the emergency subject after subject was added to the curriculum of school studies which originally consisted of a meagre knowledge of the 3 R's and a verbal repetition of some old texts. Yet the remedy sought for was not to be had. Opportunities for work became less and less, idleness became the general habit of the people and stood for a mark of nobility, books gave a ready plea for sitting still, luxury and fashion took the place of necessity and use, while the life's wants were ever on the increase. While matters stood thus the work-less-and-gain-more policy of man urged him still further and directed his energies to the invention of machinery and the discoveries of science. What was the result? By this, man was able to produce more things than he needed with least trouble to himself. The seeming prosperity in the abundance of things he produced proved to him a curse in disguise. The cultural value of work he ignored. The most important moment in life—the bodily activity—had no longer its legitimate share in his daily avocations.

The animal creation is such that each animal of a species is equipped only with such of the organs as are suited and necessary for the sort of life it has to lead. Their regular use is a necessity to its life. It is to its health and comfort of life that it has to keep in proper use all its parts and particularly those parts which differentiate it from the animals of the other species. It is by the free use of its parts that it builds its body and brain and at the same time procures its food, defends itself from its enemies and makes itself fit every way for its complete living. So is man too. His growth, health and happiness en-

tirely depend on the regular and efficient use of all his parts, and particularly of those which distinguish him from other animals. Apart from his erect posture of standing, his power of speech and the strength and dexterity of his hands guided by the superior power of his intellect, make him the lord of creation. More, than his power of speech his hands have stood him in everything that concerned the advancement of his life. All the victories of human effort are the expressions of his hands. So his prosperity, power and glory depend upon the proper use of all his organs and particularly of his arms and hands and of the vocal organs. It is the means of his present happiness and of increased power for the future. It is his education.

The changed condition of man's life not being helpful for his bodily activities he naturally grew from generation to generation weaker and weaker every way. Wise men clearly saw the source of the evil, and said as Pestalozzi did, that the education of the children should be based on actual life and its relations if they are to grow efficient and eminent men, and that the harmonious development of human nature was the end of all education. Suggestions given every now and then to remedy the defects had not the desired effect. The courses suggested failed perhaps wanting in principle or methods. They did not interest school children and so were dropped. It is true that gymnastics, games and drill which were among the number gave plenty of scope for the bodily activities of children. They only made boys rough, strong and sturdy but not gentle, keen and quick-witted. For such exercises appeal only to the heavy muscles of strength and locomotion which we have in common with the lower animals and which at best can make a man only an athlete. They do not appeal to the other set of muscles—muscles of skill—"which are involved in the fine adjustments and delicate co-ordinations of muscular movements. They are principally the muscles of the arm and hand, and of the vocal organs."

Cutting wood with an axe, digging a pit, carrying a weight, running—every one of these is the work of heavy muscles. They require very little training that is very little brain work. Speaking, singing, playing on

musical instruments, painting, and writing are complex acts which are effected by co-ordinations of delicate muscles, and so require very long training. Long training means long practice under the direct control of the brain. These experiments with different kinds of bodily activities lead them to find out that children's interest and attention were factors most essential to education, that all kinds of bodily activity are not equally educational, that such activities should be directed along the lines of human interests in close touch with practical arts and not along simple pleasure-seeking pursuits, that hand, especially that part of it which moves the five fingers and their many sensitive joints, is most susceptible to training. These ideas worked their way from decade to decade until the time of Pestalozzi and Froebel when the Kindergarten system of school instruction solved the problem of infant education. When people were convinced how eminently practical, systematic and effective were the methods of Kindergarten for training and developing the powers of children they tried to arrange on similar principles courses of work under the name of Manual Training for the Boys of the Primary and Secondary Schools. Each country of the civilized world hastened to have its own system of work before others and in consequence there were many forms of Manual Training each slightly different from others in methods of work, though same in principles, some emphasising the educational side of it and others the economic side. One of the most prominent among the methods was the one of tool instruction devised by Victor Della-Vos in 1866 for the Imperial School of Moscow. As his system of the analysis of tools* and processes of work were not quite up to the educational methods, it was reformed and reorganised in Sweden, about 1870, by Herr Otto Solomon, and was given the Swedish name of SLOYD.

Now the principle of the Sloyd System of

* The distinguishing characteristic of man in the animal kingdom is the use of tools. Without them he feels weak, helpless and in many cases hopeless of doing anything. Hence a graded course of tool exercises is most welcome and most useful and highly educative to him.

Manual Training in general is this:— The muscular movements involved in the handling of tools are made at first by nerve energy which comes from the brain, and after these movements become automatic by practice, they are relegated to the lower centres of the brain and the spinal cord. Such movements cease to be of much educational value when they are no longer consciously directed by the brain. All processes in Manual Training stop when they cease to be brain work. Let us see how this is done.

The cortex or the outer covering of the brain is said to be the home of mind. It is composed of nerve cells and nerve fibres. Cells generate nerve energy and fibres conduct it. These develop, as every organism does, by nutrition and self-activity. They undergo a long process of development before they mature and are fit to function. The development of brain power means the development of its cells and fibres.

The whole field of the brain is divided into areas or centres, each centre governing a particular portion of the body. Thus there is a centre for each of the senses, and one for the voluntary movements of the body. The cells of a centre are developed by exercising the organ with which they are in communication. The more an organ is used and in a variety of ways, the greater is the number of cells developed in the centre that governs it. So the training of the senses* and the organs of the body, is not the training of the external parts but it is the developing of the brain cells. When it is said that even the best human brain has only a part of its cells developed into functional activity we can see what a vast scope we have for the education of the human mind.

Cells are of two kinds—sensory cells and motor cells. Sensory cells receive impulses from the senses, joints and muscles, and the motor cells generate nerve energy to contract the muscles.

The impulses received by the cells are

* Senses are the organs which send impulses or sensations to the brain. There are not only sensations of sight, of hearing, of taste, of smell and of touch, but psychology recognises also the sensations of movement, sensations of pressure, sensations of weight, and so on.

developed into ideas which after certain changes form part of the higher processes of thought. So the accuracy and clearness of our thoughts depend on the accuracy and clearness of its materials, the ideas. The class of ideas which, in some way or other are fused with most of our thoughts is the motor idea or the idea of movement. So the accuracy and clearness of most of our thoughts is dependent on the accuracy and clearness of our motor ideas. Accurate motor ideas are developed by accurate muscular movements. Accurate muscular movements are caused by skilled work. Sloyd is a system of skilled tool work.

Now it is plain from the above that a methodical work with tools develops the brain cells and also the ideas which enter into process of thought and so of *apperception* which is the one thing the mind does.

It was said that Sloyd was a means of general education; that is, it develops all the powers of children—physical, mental and moral; and it is thus:—

Physically.—Brisk work at the bench with different gymnastically correct positions while working with different kinds of tools gives more exercise to the left side than to the right-side of the body and more to the upper than to the lower part of the body. This is the principle of gymnastics—the idea being to give more exercise to the parts which are neglected in the ordinary routines of daily work. Hence Sloyd is known as Applied Gymnastics. It affords good exercise not only to the muscles of the hands, arms and shoulders, but also to the muscles of the legs, trunk and chest.

Mentally.—Sloyd consists of a series of actions which are controlled by the mind and which react on it. "Sloyd compels a worker to think—not of course in terms of words but in terms of materials and the process of their construction all concrete. Thus it makes the thought definite clear out and complete." Judgment and reasoning are appealed to at every step.

Morally.—The strengthening of the will-power is the secret of all moral training. A

† Motor ideas are developed from sensations of movement which come from the muscles, from the joints and from the ligaments by means of the sensory nerves supplied to them.

IN MEMORIAM.

boy engaged in a useful work in which he takes great interest is in reality exercising his will. An authority on the subject says—"Children wholesomely occupied, children busy in trying to realise some form of usefulness and beauty, must, I think, daily grow into that unconscious goodness which I hold to be the highest morality."

Over and above all Sloyd makes a man self-dependent and quite practical. He becomes useful to himself, to his home and to his society.

On account of these many virtues Sloyd was very much appreciated over all the civilised countries and teachers from all parts of Europe, especially from England went to Sweden every year to receive the training in this system and introduced it into their schools. America* soon followed. Being convinced of its advantages in the training of children when given during the period of brain growth, the Madras and Bombay Governments made arrangements a couple of years ago to introduce the system into their Training Schools as a preliminary measure of making it a part of general instruction. The Native States of Travancore and Mysore have it for nearly a decade. The Native State of Baroda is said to have very recently borrowed a teacher from Mysore on a salary of Rs. 250 a month to be the organiser of Sloyd there. Our State (Cochin), always alert in matters educational, foresaw these changes from the hints given by her sister States and introduced the system into its training and industrial schools with the main object of maintaining its proud position in the fore-front of the educational advancement of India. During this period of its existence here in Trichur, it has steadily been growing in importance and is being very highly appreciated both in and outside the State. It has greatly interested your predecessors and the pupils of the Industrial School, and it is now your turn, it is your interest, to avail yourselves of its benefits and spread the principles of this all-round training in the field of your future work.

* Manual Training was introduced into America in 1877. The Sloyd System of Manual Training was introduced in 1888 by Herr Gustaf Larsson who is now the Principal of the Sloyd Training School, Boston.

MAY I hasten, from this distance of more than a thousand miles, to offer my tribute of respectful and affectionate praise to the memory of the illustrious scholar and educationist, the late Rao Bahadur Professor M. Ranghacharya, whose lamented death is chronicled in the Madras papers just received here? The victim of a long and painful disease, he has just left us, his last days gladdened with the deepest domestic sorrow, but his was a life which shed lustre on his countrymen and his example will remain as an abiding influence with us for generations to come. Gifted with intellectual endowments of the highest order, he consecrated them to the service of his national religion and the language of his gods, and achieved during his lifetime, a breadth and profundity of scholarship, which will always remain the pride and envy of other toilers in the same field, while his amazing versatility evoked the awe and admiration of all his contemporaries. He was, in all the situations in which he was placed, a tower of intellectual strength and one might say of his death as Scott said of that of a famous politician:—

'Now is the stately column broke'
in spite of the utter want of similarity between the career of one whose days were cast in the ascetic seclusion of study and the other who stood in the thick of a thousand political disturbances and in spite too, of the very apparent difference in magnitude.

I crave the indulgence of your readers for a moment to mention a few personal reminiscences, not intimate and received at close quarters, but from a due distance of respectful admiration. I was at school in a provincial town, when he was a professor at college there, and I can recall very vividly at this distance of time, the great respect for his prodigious learning which some of us even little boys entertained, though it was only a matter of bearing for us from our elders. Walking along the street in little knots, we invariably lowered our voices, and walked in silent respect, as we approached his house and did not venture to disturb in any measure the great man who was busy with his books. A

few years later when he was occupying with great distinction to his countrymen the chair of the Professor of Sanskrit and Comparative Philology at the Presidency College, he was elucidating the mysteries of the Bhagwat Gita every Sunday morning to large audiences in Triplicane, and I remember the eager excitement with which I looked for the weekly event, and rushed from Georgetown to hear him, always taking care to get up from bed early enough to avoid the chance of being late. It was only the other day that I had the pleasure of receiving from him the first volume of his 'Hindu Philosophy of Conduct' consisting mainly of the lectures referred to above, a monumental commentary on the Song Celestial, which alas! he was not destined to complete, though it is understood, the manuscripts are available in a form needing some revision. A remarkable combination of the spirit of scientific enquiry with that of the highest religious fervour was what he accomplished as is witnessed by every sentence in the Philosophy of Hindu Conduct. I had the pleasure of writing to him in appreciation of the excellent qualities of his book during his long and lingering illness.

There is however one scene which is ineffably impressed upon my mind. It was when I had just taken the Degree and I was serving as a tutor on the English staff of Pachaiyappa's College and he was a member of the Board of Management of that institution. I had gone to him in the course of business, introduced by a kind friend and having overcome my youthful shyness with a certain amount of effort, when I found him not only very cordial and pleasant in his reception, but anxious to enter into a sympathetic questioning of all my intellectual pursuits. I was just then engaged in a special and elaborate study of the more recent English poetry, post-Victorian and contemporary, and I found to my great amazement that he could talk very familiarly of the work of William Watson and Stephen Philips, Austin Dobson and Edmund Gosse and of course of Swinburne and Meredith. I had heard quite often of the extensive range of his studies, but I had not the faintest suspicion that this Professor of Sanskrit and whilom Professor of Science

could possess such detailed knowledge of the latest developments of poetry in England. The last rays of the sun were darting through his window and the adjoining temple bells were calling for worship when I withdrew in a deep spirit of admiration, leaving him again to the books scattered on his couch. I do not remember if my own business was furthered by the interview, but it mattered little, as I returned with an experience which will always be one of my most cherished possessions.

It was this width of study that was patent in every thing that he said and wrote, whether he was lecturing on the 'Meghasandesa' or on the 'Bhagawat Gita,' on 'Hindu Loyalty' or 'The Personal Equation in History' or wrote a volume on the recondite points of some great teacher's philosophical system. His intensely scholastic habits were responsible too unfortunately for some of his shortcomings, is they may be styled by such a name—a certain inability to move in general company with a feeling of perfect ease and sense of social equality; a certain manner of reserve and love of seclusion; a heaviness of thought and expression, and even an occasional want of courage to translate his thoughts into action, while his physical disabilities and early death were also due to his sedentary habits. I remember watching him closely during the entire length of a garden-party, I forget the occasion, and I expect my special interest in his movements in that large assemblage of gentlemen was due to my appreciation of his great intellectual attainments, and I found that beyond nodding to an acquaintance here and an acquaintance there and shaking hands with the host and the chief guest, he did nothing and did not exchange even half a dozen syllables with anybody in the course of the whole evening. But they are probably some of the inevitable penalties of a great scholar's life and habits and there is little use complaining against them.

Even in the midst of the feverish excitement caused by the ensuing meeting of the great national assemblies at Lucknow in Christmas week, I do not hesitate to invite

public attention, to the greatness of the career which has just ended, for the scholar advances national interests too, not merely by his direct work, but by giving a personal demonstration of the wonderful reach of the Indian intellect in some sphere or other. The scientific researches of Dr. J. C. Bose and the poetic success of Sir Rabindranath Tagore are, I expect, playing no unimportant part to-day in changing Britain's angle of vision on Indian problems and when the noise of political controversy is hushed, and

'When the hurlyburly's done
When the battle is lost and won'

the names of the scholars will shine forth like stars in the national firmament. I know of at least one distinguished member of the ruling race in this country whose respect for the intellectual capacity of the Indian is based on his appreciation of the endowments of the subject of this sketch. Dr. Johnson answers somewhere at the exaggerated language of inscriptions on tomb-stones by calling them falsehoods in the 'lapidary style' and obituary notices generally tend towards such a weakness, but it is with a perfect consciousness of such risks that I declare deliberately that in the death of Professor Rangaobharya we have lost one of the greatest men that have appeared in recent decades in Southern India.

P. SESHADRI.

[4, BHULUPURA,
BENARES CITY.]

DURBAR DAY CELEBRATION.*

TO-DAY is the DURBAR DAY. We are assembled here to commemorate the Coronation in India as Emperor of His Majesty King GEORGE V this day 1911. It is the day of entry of Their Imperial Majesties the King and the Queen into the ancient and historic city of Delhi. It is the day on which His Imperial Majesty King George V celebrated the solemnity of His coronation as Emperor of India. This is a red letter day in the annals of our land because His Majesty the King Emperor came to our country to be crowned Emperor and receive the homage of the Ruling Princes and people of the land and reaffirm in his own words those promises and privileges which Their Majesties Queen Victoria and King Edward VII had graciously vouchsafed to us. We, Indians, have had the unique honour of loyally receiving in our midst Their Imperial Majesties, while it was not given to others of the Empire to enjoy that honour. This was the first Imperial visit and we wish it will not be the last. Many a blessing accompanied this visit. It is from that day forwards that the policy, *re* education of the Imperial and Provincial Governments and that of every officer of the Education Department has undergone a complete change. It was on this memorable occasion that His Majesty through H. E. the Viceroy announced the grant of 50 lakhs of Rupees to Provincial Governments for the expansion and improvement of education in the country and promised liberal grants year after year.

I may read to you the words of His Majesty in His reply to the address of the Calcutta University:—

"It is my wish that there may be spread over the land a net-work of

* Presidential Address of Mr. C. Srinivasachari, at the Durbar Day Celebration of the Corporation Model School, Triplicane, on 12th December 1916.

Schools and Colleges from which will go forth loyal and manly and useful citizens, able to hold their own in industries and agriculture and all the vocations in life, and it is my wish too that the homes of my Indian subjects may be brightened and their labour sweetened by the spread of knowledge, with all that follows in its train, a higher level of thought, of comfort and of health. It is through education that my wish will be fulfilled and the cause of education in India will ever be very close to my heart."

The above is a distinct command to the various Provincial Governments and the Government of India to adopt a liberal policy of education from that day and to remove the illiteracy of the masses. There has been no doubt a more sympathetic policy in education throughout India, and the Government of India have been allotting larger sums of money to the various Universities and Provincial Governments.

But it is a matter for regret that the Government of India have not been able to accept the late Hon. Mr. Gokhale's Elementary Education Bill to improve primary education by making it free and compulsory though some of the advanced Indian States in the country have already done so with pronounced success. Needless to say primary education is the most important branch of education as it aims at removing the ignorance of the poorer classes.

As the condition of primary education in the City of Madras, with which we are mainly concerned, I am glad to state that the Corporation has been able of course with the liberal aid of the Government to build and maintain 16 (out of the 49 contemplated to be provided) Model Elementary Schools in the course of about 5 years. Four school houses have also been constructed but they have not yet been started due probably to want of funds. We are not a little indebted to

Rao Bahadur A. C. Pranatartihara Aiyar, B.A., I.S.O., for this invaluable boon; it is he who schemed, planned and carried out with assiduous care the formation of these schools. Each school has accommodation for about 200 pupils and there are about 2,500 pupils in the Corporation Model Schools at present. Out of over 30,000 pupils of school-going age in the city about 25,000 are attending school in the now existing 215 Elementary Schools (Government, Mission, Municipal and private) leaving about 5,500 pupils without schooling. Our Corporation seems to attach more importance to sanitation than to primary education. I think, subject to correction, that sanitation and education should go hand in hand and receive equal attention. To augment its revenues for expenditure on education, cannot the Corporation reasonably claim all the Abkari revenue in the city from Government as the Abkari Department ostensibly exists for the health of the people and as the Corporation is the proper body to have charge of this Department. The Corporation may also claim a portion of the Excise revenue legitimately for the benefit of primary education. If necessary the Corporation may even levy a small educational or a terminal cess ear-marked for this purpose, thus making primary education free and introducing also the principle of compulsion as opportunity serves.

Turning to the nature of the instruction imparted in these schools I think that no education will be complete without Manual Training. Manual Training should be given side by side with general education in all classes of both Primary and Secondary schools. It should be made to vary according to the locality where the school is situated. I learn, not without surprise, that instruction only in carpentry is imparted in all the Corporation Model Schools irrespective of the class of people from which the bulk of

their pupils is drawn. The subject of instruction in each individual school should be such as would suit the profession of the ordinary people of the locality, for instance, weaving, embroidery, dyeing, etc. By following this method the schools will draw larger numbers of pupils, as the kind of Manual Training imparted will be an additional attraction to them.

"A school ought to be a noble asylum, to which children will come and in which they will remain with pleasure: to which their parents will send them with good will."

In this connection it should not be forgotten that in our desire to spread primary education we should not neglect the physical aspect of the children. As the child of to-day is the citizen of to-morrow his body should be so developed as to enable him to withstand the trials of his after-life with a stout heart. This may be done better by reviving our old modes of recreation for children giving them the benefit of both muscular activity and plenty of open air. I may add that medical inspection of school children is not too great a desideratum even in primary schools if it could be afforded.

Considering the question of the salary and status of schoolmasters and especially primary schoolmasters, we have to admit that they are anything but satisfactory and the profession which is reputed the noblest, fails to attract the best intellects of the soil who turn to more lucrative walks of life. The primary schoolmaster is expected to teach all kinds of subjects, such as nature-study, gardening, etc., and in order to do justice to his work he should be well-equipped and the kind of men now available, with their scanty education and scantier emoluments are not the sort of people who could do it at all. Owing to the persistent agitation carried on there

has been some increase in the pay, but the scale of pay is what we may call starvation salary. We have therefore to agitate incessantly for a substantial increase in the salary of these over-worked schoolmasters, to invite a better class of people to the ranks of this noble profession.

So far back as in 1828, Lord Brougham said with reference to the general diffusion of education: "Let the soldier be abroad if he will: he can do nothing in this age. There is another person abroad. ... The schoolmaster is abroad; and I trust to him, armed with his primer, against the soldier in full military array."

Even the Titanic war now raging with such savage fury, rightly considered, cannot be said to disprove this theory. The influence of the schoolmaster is seen largely to preponderate in many a gigantic feat in this war.

Thus in short are some of the thoughts that forcibly occur to any and everybody interested in the expansion of elementary education in this land. We require more and more schemers in this cause; and we require greater and greater self-sacrifice on the part of many an intelligent son of the soil. May we hope and hope not in vain, that the day of victory for the Allies will soon come and with it come also the boon of a free and compulsory elementary education in this ancient land where education was from time immemorial always given free! And true to our natural instincts, may we hope and hope even with an eager eye pointing to the golden day-gleaming in the near-to-be-seen horizon for the hour that will usher in victory for England's cause which is our cause and the cause of justice, sacred and inviolable!

THE TRUE AIM OF EDUCATION.

By MR. S. H. FREMANTLE, C.I.E., I.C.S.

The following paper was read by Mr. S. H. Fremantle, C.I.E., I.C.S., at a meeting of Muir Central College Economics Society, on Nov. 27, Principal E. G. Hill being in the chair.

The Science of Economics is largely concerned with industrial progress and the latter depends in very large degree on certain fundamental characteristics which Marshall states as follows:—

'A certain independence and habit of choosing one's own course for oneself, a self-reliance; a deliberation and yet a promptness of choice and judgment and a habit of forecasting the future and of shaping one's course with reference to distant aims.' These characteristics a true and rational system of education can do very much to foster and so it appears to me that the science of economics is very closely concerned with the study of education. And we can look at it from another point of view. An immense amount of public money and much private money too is spent on education. Yet very little thought is given to the principles on which the money should be spent and the subject is but little studied. I find in the University Syllabus for the course in Economics no books dealing with it and I fear therefore that my paper to-day will not be of direct assistance to you in success in the examinations. Nor is there so far as I know any Professor of Education in any Indian University. Since there is in my opinion no subject on which there is so much confusion of thought, so much repetition of shibboleths, so much statement of so-called truths which cannot be accepted without important limitations. I hope that what I, a humble student of the science of education, am about to say will help in enabling you to clear your own ideas and will provide material both for independent thought and for an useful discussion.

To begin with I wish to point out that schooling is not the whole of education.

We see it frequently stated that the future of the country depends on the spread of education and this is true of education in its broad sense, but it is not necessarily true when by education is meant as usually is meant in every-day speech scholastic education or instruction. A person who has been to a good school and University is termed an educated man, while one who has not enjoyed such a means of culture is styled uneducated. Yet it is a matter of common knowledge that the latter may admirably fill his sphere of life and the former may egregiously fail to do so. Instances will occur to every one of you. There are boys who have been many years at good schools but have got little good from it, and are incapable of any real work. Lacking moral fibre, as soon as they are freed of discipline they waste their time and their substance in sensual pleasures. There are men such as the Head Chaudhri in the Khusru Bagh, who can manage a large staff, and is intimately acquainted with not only the names, but the habits and treatment of a large variety of plants and yet has had little or no schooling. Or take the village potter. Is he not wonderfully skilful and efficient in his own sphere? It may be said that a good education has been of little real service to the one nor has a defective education been a serious obstacle to the other. This does not mean, however, that education is a failure. Education is not a matter only for schools and Universities. It includes all conscious human influence brought to bear on the young and no view of education is complete which does not lay stress on the responsibility of parents and older relations for doing their part towards the training of youth. This is of course a common place of educational principles. It is especially important in India because many students come from homes where there is little enlightenment and this places a special responsibility on the schools and colleges for doing what they can to supplement the deficiencies of the home. However, we must take them as they are

and I will confine my remarks now to discussing what can be done for the right training of youth in schools and colleges.

Now from a practical point of view what we want to determine is what kind and what amount of education is required by each class of people in this country. And in order to be able to determine this it is necessary to have some conception of the aims of education. These have been variously stated by different authorities. Aristotle wrote more than 2,000 years ago: 'Men are by no means in accord as to what the young should learn, whether they aim at virtue or of getting the best out of life. Neither is it clear whether education is more concerned with intelligence or with character. And the question is brought no nearer solution by reference to the actual practice of contemporary education. No one knows whether the young should exercise themselves in those studies which are useful in life, or in those which tend towards virtue or in those of essentially theoretical interest. All these opinions find supporters.'

Well, the case is very much the same to-day and the question is yet unsolved, but it can be put more simply. What is it that we should wish to give our children through education?

The answer of some will be the power to earn their own living and of others, the power to be useful to the community. This is the economic view plain and unadorned. But I was greatly struck by a newspaper article I recently saw on the aims of education. 'If we are wise' it said, 'we should wish our children to be happy first of all, since by real happiness they find their greatest success and their greatest usefulness. And I think there is a great truth in this. And the author goes on to tell us at length (I only paraphrase his argument here) what it is that makes people happy. 'We need' he says 'a faith in the very nature of the universe, a belief that the universe is itself interesting and that it will

not betray any one or any nation that is interested in it.' Therefore, what we should wish in the education of our sons is that they should be made happy through incessant interest in it. The universe should not be regarded as a place where men labour to grow rich or to make their country the greatest in the world. This is the modern and materialist view of life, which has led to the present war. 'But the business of education is to give to the boy through right experience of life and nature the will to act rightly in any position in which he may be placed. Then through his happy industry and awakened intelligence he will be able to hold his own in the competition of life and the nation also.'

To learn to undertake in a keen, persevering and cheerful spirit any work allotted to us is surely the greatest benefit that we or our country can receive from education and we shall not learn this unless the work we do in school and college is made interesting to us. It is clear also that education is not finished at school and it is only if what is taught in the school interests the boy that he will be inclined to continue his education after leaving the school. So we come back to my main text, that work in school must be made interesting and unless it is made interesting it can profit the boy little.

How are we to apply these principles to the conditions of Indian students?

It is obvious that some subjects in the curriculum are naturally more interesting than others. History and geography and physical science when taught as they should be in relation to each other and to the world around us, economics too when applied to local conditions, literature also both Indian and English. These are the chief subjects of study in the college. They contribute directly and obviously to utility and culture, and they fulfil the test applied. But what of the subjects in the schools, reading and writing of vernacular, reading and writing of English, and arithmetic. These are the mere mechanism of education, the keys to unlock wide realms of knowledge. Lord

Avebury puts it in a homely way when he says, 'Reading, writing, arithmetic and grammar do not constitute education any more than a knife, fork and spoon constitute a dinner. It is when as means and not as ends in themselves that we should regard them, and we cannot pronounce on their utility in primary and secondary schools till we analyse what use is made of them and what use is likely to be made of them.'

In England the results of universal primary education which dates from 1870 have certainly been disappointing. It is clear from sociological studies such as those of Mrs. Bell in 'At the Works' and Patterson's 'Across the Bridges' that power to read and write has very little effect for good on the mind of the average worker, and that the great amount of expense and labour bestowed on the teaching of the three R's in elementary schools have not been justified by the results obtained. The opinion of working class parents is the same and they almost invariably withdraw their boys from school when they arrive at the age of 14 years, when schooling is no longer compulsory. Only 10 per cent. of the youth of England attend school after that age.

In India we have a net work of elementary schools spread all over the country and there are few localities not within reach of a primary school. But only a small proportion of the available boys of the neighbourhood are sent to school and of these less than one-fourth reach as high as the upper primary standard. And of those that do reach that stage 80 per cent. go on to secondary schools in order to obtain literary employment leaving only a very small proportion to return to their villages. These facts show clearly that primary education, as such, is not appreciated by Indian parents and that they do not consider that our system of schooling in any preparation for life.

One cannot dismiss the subject by saying that Indian villagers are illiterate and ignorant people and that their views are of no importance. They

like other parents wish their children to be happy, they know better than we do what life their children are to lead. And how can we be sure that they are wrong?

For when village boys have acquired sufficient acquaintance with the 3 R's to pass the primary standard, they are not in any sense educated. They are only in the possession of the keys which unlock the realms of knowledge and if they leave them to rust and decay they will get little or no benefit from the time they spent at school. But in a village what use are they to make of them? There are hardly any books and only an occasional newspaper and there are as a rule no men of culture and leisure.

Should elementary education then be restricted to the literary classes whose aim is to proceed to the secondary school? Are we prepared to say of our agricultural population what the poet Gray could say of rural England in his day,

Knowledge to their eyes her ample page
Rich with the spoils of time did ne'er, unroll
O chill penury repressed their noble rage
And froze the genial current of the soul.'

I think that we should make an effort to devise a system of education adapted to rural conditions and that there is no insuperable difficulty in doing so. For even the 3 R's can be made interesting and therefore educative if the methods in use are carefully considered and revised in order to interest the class and if the lessons are brought into close touch with each other and with rural life. In reading and writing the principles of the Montessori system are well known. It requires apparatus so simple that it can be made in almost any village. There are other devices for inducing intrinsic interest in these subjects, with which I will not trouble you now. The great point is to make them interesting in themselves. And in order to do this they must be made to fit in with the great interests of the country side. First there is nature. Many of us (I quote again from Lord Avebury) have felt with John Hunter the great anatomist

and could say: 'As a boy I wanted to know about the clouds and the grasses and why the leaves change colour in the autumn. I watched the ants, bees, birds, frogs and worms: I pestered people with questions about what nobody knew or cared anything about.' And then 'there is agriculture. Children like nothing better than acting as grown up people. They are constantly seen in the villages playing at marking out field boundaries in the sand and even constructing miniature terraced fields in uneven land. Nature study and the establishment of school gardens will teach them to interest themselves in flowers and vegetables and crops and trees and make them more adaptable—more open to new ideas, and more ready when grown up to adopt any new crops and processes recommended by the Agricultural Department. Then boys who have acquired a competent acquaintance with the 3 R's, the keys that open the realms of knowledge, should be given all possible opportunity of using those keys and not letting them rust. Village libraries should be established, occasional lantern lectures on popular subjects might be instituted and periodical readings of religious and popular books should be organized in the school. Village panchayats, co-operative credit societies, school committees, all of which have great educative value would meet in the school and it might and should be the centre of culture for the neighbourhood.

Courses should also, as time goes on, be established for upper primary passed boys by itinerant agricultural teachers who would visit central schools once a week and give instruction in rudimentary agricultural science.

The programme of primary school activities will no doubt be regarded as idealistic or utopian and condemned as beyond the resources of the country. To my mind there is no insuperable difficulty in carrying it out, provided that teachers are properly trained and go to work in the proper spirit. As for expense the simple ap-

paratus required for teaching can be made in the school itself and the school garden will of course be worked by the boys—both to their great interest and profit. The only extra expense required will be for the better training of teachers and for improving their salaries so that men of some intelligence and culture may be attracted to the profession. It is wonderful what an effect on the spirit and quality of the teaching is produced by improved position and prospects of the teacher.

And surely the cost will be abundantly repaid by the awakened intelligence of the countryside.

Why is the average produce of rice one-fifth of that of Italy and Spain—of wheat one-third of that of England—and of sugar one-fourth of that of Java?

Opinions differ as to the extent to which illiterate cultivators are ready to adopt the improvements introduced by the Agricultural Department but there can be no doubt that there is no great interest shown in any new thing—that agricultural profits are largely dissipated in useless feasts and ceremonies—that thoughtlessness, want of sense of responsibility and disinclination to honest work are at the root of many evils. They are preventing the spread of co-operative credit societies which are ready to provide the capital necessary for development, and of other co-operative societies whose advantages are well-known for joint supply of improved seeds and implements and joint marketing of produce. They lead to wilful waste of the canal water so necessary to bring the crops in this thirsty land to maturity and they cause rents to fall into arrears and the consequent ejectment and ruin of the defaulters. All these are evils which can to a great extent be cured by a true system of education but not by mere mechanical instruction in the three R's.

I have attempted to show both by reference to the theory of the subject and to the practical

results of a similar system in England that the latter is of very small value indeed for the boy and for the nation and we are certainly not justified in applying any form of compulsion to parents to send their boys to school till we are quite sure that the education we can give them there is worthy of the same. Let us therefore pause before we advocate the wide and indiscriminate extension of primary education without consideration of its quality.

I turn to the Secondary Anglo-Vernacular Schools. They are also, as I mentioned before, chiefly concerned with the mere mechanism of education which looms larger here than in other countries because not only vernacular, but also English has to be learnt before the studies which are of real educational value are reached. Most boys in such schools never get beyond this stage, and unless the curriculum in the school includes such subjects as manual training to foster the creative faculty, nature study with drawing, history and geography to stimulate the imagination and widen the outlook and (for this is indispensable) there are teachers who have not only undergone a course of training for the profession, but have the will and intelligence to apply thoughtfully the methods of teaching they have learnt, the boys who leave school will derive little benefit from the instruction they received and will be no great help to the progress of the country. It is not of course denied that a little English knowledge has a commercial value. By its means service in the Railways, Post Office and Telegraph Departments and in Presses and European commercial firms is obtained and while the demand still exists, parents and boys will prefer to expend in acquiring some acquaintance with English, the time which should under more favourable circumstances be devoted to subjects of real educative value. But those occupations can only absorb a small proportion of the boys who qualify for them. They are not themselves productive services in the true sense

and do not contribute to the increase of the nation's wealth though they may be a measure and an indication of it. Hence, as progress is made in agriculture and industry and the wealth of the country increases the demand for boys qualified for such services will rise proportionately. But increase of wealth is slow and the supply of students for these essentially subsidiary services is fast outstripping the demand.

What then is to become of the boys who are attracted to cheap and inefficient secondary schools by their establishment near their homes and the lowness of the fees?

Competition for service must become keener and keener as facilities for secondary education continue to expand at a quicker rate than the wealth and commercial enterprise of the country. The boy who is crowded out must either maintain a precarious existence in hanging on to the skirts of the learned and commercial professions or he must return to his village where he will be useless for any good purpose. He cannot be happy for he will consider and rightly consider the time and money spent on his education to be wasted and he will become a discontented and inefficient member of the community.

The conclusion to be drawn is surely this—that neither the individual nor the nation is benefited by a large increase in the facilities for Anglo-Vernacular (mis-called secondary) education and that charitable and benevolent people who now contribute largely to such institutions, would be better advised if they devoted their available resources to commercial enterprises which not only add directly to the wealth of the country but provide careers for educated men and employment for the semi-educated, where by congenial work they can keep up and expand their interests and lead lives that are both happy and useful to themselves and to the community. If on the other hand they prefer to devote their spare resources to the encouragement of education there is ample scope for their generosity in

founding scholarships for the poor yet brilliant boys who would otherwise have been unable to reach the secondary school and college. Such boys will soon pass through the introductory stage and their higher education will be a joy to themselves and an economic asset to the nation. If the commercial demand for boys who know a little English continues to increase it can be best met by starting special two years' courses in English in Tahsili Schools for boys who have received a good vernacular education and passed the vernacular final examination. This would be far better than the multiplication of cheap English schools ill-equipped and ill-staffed.

I turn now to higher education, that imparted in colleges.

My criticisms, you will say, cannot apply to this, for Universities and colleges deal with the humanities. Literature, philosophy, history, mathematics and the physical sciences are studied as subjects bearing on the lives of men and have a direct and vital relation to the best work that a man can hope to do among his fellow-men. And to a great extent this is true. But remember that boys generally come to the college very ill-equipped for higher education, so that the first two years of college life have to be largely occupied in verbal studies, not in acquiring real knowledge but in obtaining the keys which open that knowledge. Remember also that more than half the students fall out before the end of this, the intermediate stage is reached. Remember also that many colleges are so weakly staffed and ill-equipped that they cannot fulfil their proper function. Many students too go up to college whose ability is not sufficient to follow them to profit by the course. And it will be seen that a substantial portion of what is known as higher education does not pass the test and that a considerable proportion of the students who spend two or three years at the college leave it unfitted for life. Of the fortunate ones that remain and by taking their full part in the intellectual, social and athletic life of the college fit themselves for an useful and a happy future there cannot in my estimation be too many.

I should like therefore to see many more persons given the benefit of a college education. This does not mean the multiplication and extension of cheap colleges. Unless the staff is composed of men of culture and enthusiasm, unless adequate laboratories and libraries are available for research and study, college education is not worth while! There can be no cheapening on the intellectual side. But on the material side there is room for reform, or perhaps I should say for variety. I should like to see established in connection with this college a hostel built and maintained on simple Gurukul lines for poor boys of special promise, where board and lodging should be entirely free and where the Hindu ideals of plain living and high thinking should be given free scope, and I should like to see a similar institution for Mahomedans. No doubt such developments would mean a corresponding increase in college buildings and staff, but it would in my judgment be well worthwhile.

Gentlemen, I have done. Our Secretary has named my paper, 'The Economic Value of Education,' a very wide subject indeed, of which I have only been able to touch the fringe. I called it myself 'The Economic View of Education' and even with this restricted title I feel that my treatment of the subject is inadequate. There are other aspects from which it may be viewed. It would be interesting for instance to discuss the relationship between technical education and industrial progress or to adduce from general educational principles a comparison between the economic value of the scientific and arts courses. These are perhaps subjects too technical for the mere layman but they are of great importance from a practical point of view and I hope that educationists may some time take them up. Meanwhile I offer this contribution which would have been better named 'The True Aim of Education' hoping it may lead to further study and if anything that I have said to-day inclines you to think more of education as an introduction to a life happy in itself and useful to others, I shall be amply rewarded.

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ADJOURNED MEETING OF THE SENATE.

The adjourned meeting of the Senate was held on Friday, the 24th Nov. 1916, in the Senate Room, Chempauk, when more than 60 Fellows were present.

CONFIRMATION OF THE MINUTES OF A MEETING.

Under Regulation 63 the Syndicate brought forward for confirmation the minutes of the meeting of the Senate held on March 3, 1916, as Mr. G. A. Natesan took exception to the correctness of the words 'was withdrawn by the Syndicate' occurring in the following paragraph printed at page 15 thereof:—

"The Vice-Chancellor at the same time added that Standing Order No. 1 under 'II Special B. Professor of Comparative Philology,' appeared to be inconsistent with the provisions of Regulation 140 and was withdrawn by the Syndicate."

This was formally moved and seconded.

Mr. G. A. Natesan moved to substitute the words "by Mr. Hunter" instead of the words "by the Syndicate" in the last line of the said paragraph. He said that the proper course would have been to place the minutes before the Senate and ask him to raise his objection. Now the motion for the confirmation of the minutes was proposed and seconded. They could not shut out his amendment although he had given no notice of it.

The Vice-Chancellor said that his predecessor made a statement that a certain thing was withdrawn by the Syndicate. Whether his predecessor was right or wrong in his statement was quite another matter. The minutes went before him. He was the proper person to decide what he must state. The minutes were signed by Sir John Wallis. Did anybody take exception to the fact that the Vice-Chancellor made the statement?

Mr. Natesan pointed out that it did not matter whether the Vice-Chancellor said that or anybody said that. The question was whether the Senate was entitled to have a correct record of the proceedings. He did not question the authority of the Vice-Chancellor. The Regulations were in charge of Mr. Hunter and he withdrew one of them with the permission of the Vice-Chancellor.

The Vice-Chancellor explained by saying that Sir John Wallis said that Standing Order No. 1 was inconsistent with the provisions of Regulation 140 and was withdrawn by the Syndicate. If the Vice-Chancellor said that two and two made 5, the Fellows had no right to go against it.

Mr. Natesan bowed to this ruling.

Mr. K. B. Ramanatha Aiyar said that was not a correct view of the matter.

The Vice-Chancellor said that they were not concerned with the accuracy of facts contained in the statement, but were concerned with the statement of Sir John Wallis. The statement came in for confirmation.

Mr. Natesan did not wish to press his amendment.

The minutes were confirmed.

The next resolution for revising the Regulations relating to the Senate was withdrawn.

AMENDMENT TO REGULATION 51.

Mr. S. Krishnaaswamy Aiyangar moved to amend Regulation 51 to enable the mover of an amendment or proposition to withdraw the same when the majority of the votes prevailed even though a dissent was expressed. At present that could not be done even though there was one dissenting member.

Mr. K. Ramanuja Chariar seconded the proposition.

Mr. K. V. Rangaswami Aiyangar asked if the proposal was in order. If the proposal was carried, it would go against Regulation 52.

The Vice-Chancellor ruled that in the absence of a proposal to amend rule 52, the proposal was out of order.

MOFUSSIL MEMBERS IN THE SYNDICATE.

Mr. K. V. Rangaswami Aiyangar wished to withdraw the following proposition of which he had given notice:—

That the following "be added" at the end of Regulation 88 as an additional paragraph:—

'At least two of the elected members of the Syndicate shall be persons ordinarily resident outside the limits of the city of Madras.'

The Hon'ble Mr. J. H. Stone dissented.

Mr. Ramnuni Menon moved the proposition and Dr. Swaminathan seconded the same.

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Mr. C. P. Ramaswamy Aiyar pointed out that nowhere in the Universities Act was it laid down that any member of the Syndicate ought to come from the mofussil Colleges and it was doubtful whether they could legislate under the regulations that at least two members of the Syndicate should be from the mofussil Colleges. That was his objection.

The Hon'ble Mr. Stone moved and Mr. C. P. Ramaswamy Aiyar seconded that the meeting pass on to the next business on the agenda. The motion was carried.

VERBATIM RECORD OF PROCEEDINGS OF SENATE AND FACULTIES MEETINGS.

Mr. K. B. Ramanatha Aiyar moved that the following addition 'be made' to Regulation 95 as (viii):—

(viii) To arrange for a verbatim record of the proceedings of the meetings of the Senate 'or' of each of the Faculties, and have the same printed and distributed to the Fellows within seven weeks after the date of such meetings.

He said that the need for such a record need not be elaborated. The system of maintaining verbatim record was obtaining in other Universities. There should be a correct record of the proceedings of the meeting of the Senate and Faculties. The public also might know what kind of business was done in the Senate and the Faculties.

Mr. S. Krishnaaswamy Aiyangar seconded the proposition.

On the suggestion of Mr. Corley, Mr. Ramanatha Aiyar made the verbal amendment of changing 'or' into 'and' in the second line of the resolution.

Mr. Davis opposed the motion on the ground that whatever escaped from their lips in unguarded moments should not find place in cold print. Further the public did not take pleasure in reading long reports.

Mr. Natesan in supporting the motion said that there were numbers of people who were deeply interested in educational problems and the utterances of distinguished educationists like the Hon'ble Mr. Stone would be widely read by the public. The proposal was a useful one and should be looked at from a broader aspect.

Mr. Govindaraghava Aiyar said that for the very reason stated by Mr. Davis there should be a verbatim report which would help them to realise the responsibility of their position in the Senate.

The Hon'ble Rev. Pittendrigh said that verbatim report was no use. The grammar and composition of the speeches generally required considerable alteration. The Press frequently corrected bad grammar and composition.

Mr. Allen said that if there was a verbatim record, historical research would be made into the record and the charge of inconsistency would sometimes be brought against speakers.

The Hon'ble Mr. Stone was in favour of a record being kept as the reports in the public Press were far from being complete, often inaccurate and misleading. A record "in extenso" was necessary, so that Government might know what was actually said in the Senate. It would be quite enough to keep a record in the office.

Dr. T. M. Nair said that the cost would be enormous. Sometimes speeches were thoroughly altered by the speakers when sent to them for revision and somebody must be appointed censor to say what constituted real correction. The Registrar would have to exercise the censorship and he would be put to a great deal of trouble. He referred to the practice in the Legislative Council and in the House of Commons. After all the record was not worth the money spent on it. The public would not care to read long accounts of meetings. He himself never cared to go through the verbatim report of the proceedings of the Corporation meetings.

Mr. K. V. Rangaswami Aiyangar in supporting the resolution said that an accurate report was necessary. Some mechanical aid to their memory as to what had happened at previous meetings was essential. The cost of the report was not prohibitive.

Mr. Justice Oldfield supported Dr. Nair.

Professor Ramanathan briefly replied to the remarks made by previous speakers against his proposition. If they were prepared to keep a record for the office, no additional expenditure would be incurred for placing copies of the record in the hands of the Fellows. Further one like him might be excused for referring to the public use, for he was there as a representative of the public. He naturally referred to his constituents. Mr. Davis in his superior attitude might waive away the public. Dr. Nair might have no idea of turning to the records. But men of the educational profession like himself (the speaker) would study the record seriously. Further if the ten minutes rule was enforced, there would be no very lengthy speeches.

The resolution was lost.

Mr. Ramaniatha Aiyar then moved the following alternative proposition:—

The following addition "be made" as Regulation 95 (viii):—

"To maintain, for reference by members of the Senate and of the Faculty concerned respectively, a verbatim record of the proceedings of the meetings of the Senate and of each of the Faculties."

The Hon'ble Mr. Stone said that he could not vote for a verbatim report.

This was put to the meeting and lost, 20 voting for and 30 against.

SYNDICATE'S REPORT.

Mr. C. P. Ramaswami Aiyar moved a proposition to alter regulation 98 in such a manner that the Syndicate's report in future might be placed before the Senate for adoption. He accepted the amendment of Mr. G. Venkataranga Row to substitute the word "adoption" for the word "sanction." He said that the Syndicate was a body entrusted with the executive work of the Senate. At present the report of the Syndicate on the work transacted during the year was simply recorded. The Senate had very little to do with it except to inform itself of what the Syndicate had been doing. On page 42 of the report they would find:—

"On October 18, 1915, the Government of Madras forwarded a letter requesting the views of the Senate upon the Government of India Bill to prevent the grant to unqualified persons of titles implying qualifications in Western Medical Science, and the assumption and use by such persons of such titles, and asked for a reply by 1st November, 1915. As it was impossible to place the matter before the Senate, the Bill was referred by the Syndicate for consideration and report to the Board of Studies in Medicine. The Board reported that it 'considers the Bill a very necessary one and approves of its provisions, but considers it necessary to add a further provision to make it illegal for any Homoeopathic, Ayurvedic, Unani or other unqualified Medical Practitioner to assume the title of "Doctor" which when applied to Medical Practitioners is essentially a western title.' This report was communicated to the Government."

He did not say that the action of the Syndicate or the Board of Studies on that particular occasion was right or wrong. But it was open to the Senate to say it adopted the views of the Syndicate or did not so adopt, as the Syndicate purported to act on

behalf of the Senate. The Senate could express its divergence with the views of the Syndicate. In the particular instance referred to, if the report of the Syndicate was placed before the Senate for adoption, the Senate would have opportunity for expressing its approval or disapproval. The speaker after referring to other instances in the report where the Senate might express divergence, said that there could be no objection to accept that motion.

Mr. K. V. Rangaswami Aiyangar seconded the motion.

Mr. Allen contended that if the resolution was carried there was great potentiality for long discussion in the world adoption. The report was a statement of what had been done.

Mr. Littlehales said that the Syndicate's administration in matters of general policy was not and ought not to be interfered with. The existing regulations were sufficient to enable any Fellow to bring forward a motion if he disagreed with the view of the Syndicate in any particular matter.

Mr. Natesan pointed out that if the Syndicate's report did not reach the Fellows in time to give notice of a motion, nothing could be done under the existing rules. Certain time limit must be imposed for the submission of the report, so that when the Syndicate exceeded its limits, the Senate might be entitled to pass its own comments.

Mr. Hunter in opposing the resolution said that they could not do anything more than they could at present, if the resolution was carried. Mr. Ramaswami Aiyar's references were scarcely matters to which the Senate could take exception to. The matter was referred to a body of experts and their report was forwarded to Government.

Mr. K. V. Rangaswami Aiyangar asked why should the Syndicate print the report and submit it to the Senate if the Senate was not to express any opinion at all. It was absurd to suggest that discussion could be gagged. Fellows of the Senate knew their own responsibility. There was no question of want of confidence or a question of criticising the Syndicate on this matter or that matter. But it was a question of the Senate being able to definitely pronounce its view with regard to the administration of the Syndicate. The action of the Syndicate might be approved or disapproved.

Even Government required encouragement and admonition. Time spent in discussion was not a waste.

The Hon'ble Mr. J. H. Stone said that they were not there to make speeches to increase the feelings of the Senate towards the Syndicate, and he entirely repudiated the suggestion of the previous speaker who wanted to rid rough shod over the University. He strongly protested against a speech of that kind being delivered in the Senate.

Mr. C. P. Ramaswami Aiyar said that the Senate was as much alive to the importance of maintaining the dignity and efficiency of the Syndicate as anybody else. All that was said was that it was open to the Senate to approve or disapprove of the policy of the Syndicate. It ought not to be said that the Syndicate was above criticism. The proposal was to supply the deficiency in the regulation in drafting.

The resolution was lost, 20 voting for and 31 against the resolution, 7 remaining neutral.

MINUTES OF MEETINGS OF BOARDS OF STUDIES.

Mr. K. Ramanuja Chariar moved the following resolution:—

That the following "be inserted" as Regulation 143-A:—

"The Syndicate shall cause copies of the minutes of the meetings of the Boards of Studies held up to and including 31st March of each year to be submitted to the Senate at its meeting in the month of October."

He said that his object was to bring into a line the publication of the minutes of the proceedings of the meetings of the Senate, Syndicate and the Boards of Studies. In the interests of the Boards themselves the publication of the minutes would be of very great use. The Senate could appreciate the reasons which actuated the Boards of Studies to make various recommendations. He wanted a regulation similar to regulation 98.

Mr. K. B. Ramanathan seconded the resolution.

This was opposed on the ground that the Boards communicated their conclusions to the Syndicate who translated them into action. The Boards were appointed by the Syndicate and not by the Senate, and they were the technical advisers of the Syndicate in studies and occupied a different position

from the Syndicate to the Senate. Their minutes should not be published.

The resolution was lost.

FACILITIES FOR APPEARING FOR INTERMEDIATE EXAMINATION.

Mr. Ramalinga Reddi moved the following Resolution:—

"That in place of Regulation 181 already deleted by resolution of the Senate at the last meeting, the following Regulation be inserted":—

"A candidate who fails to pass the Intermediate Examination on the first occasion shall, on the subsequent occasions on which he presents himself for examination, be allowed to sit only for those parts in which he has previously failed, credit being given for the parts in which he has already passed. For the purpose of this Regulation, the parts of the Intermediate Examinations shall be three, viz. (i) English Language and Literature, (ii) Composition in one of the vernaculars, or any substitutes provided therefor, and (iii) One of the optional groups, as mentioned under Regulation 178."

He said that there had been absolute unanimity in the Senate regarding the desirability to get this provision inserted in the regulation.

Hon'ble Mr. Yakub Hussain Saif seconded the resolution.

Mr. Littlehales said that they had a committee appointed to investigate the causes of the large number of failures in the Intermediate Examination and that it would be better if the Senate were to postpone the discussion of the subject until such time as it had the report of the committee in its hands. Then they would be in a position to discuss the merits of the subject.

Mr. Justice Seshagiri Aiyar who is in that committee said that he did not think the committee would have anything to do with the matter. Reference to the committee would be outside the scope of the proposition.

Mr. K. V. Rangaswami Aiyangar withdrew the amendment of which he had given notice.

Mr. F. E. Corley in opposing the resolution said that students should not be encouraged to study in a piecemeal fashion. That would give encouragement to slack.

Father Quinn said that until something satisfactory was done by the committee they should give

students the liberal relief sought for in the proposition.

Mr. Natesan asked why there should be no compartment system for the Intermediate when there was such a system for the School Final and the B. A. Degree Examinations.

Mr. Statham said that Mr. Ramalinga Reddi might wait till the Committee's report was sent to the Senate.

Mr. Littlehales moved under Section 22 (8) that this motion be referred to the Committee consisting of the same members to report to the Senate upon it. If the Committee's report did not deal with the Intermediate course and the Intermediate examination it would not be worth reading.

Dr. Swaminathan seconded this motion.

Mr. Ramalinga Reddi repeated the Senate had, during the last three years' discussion, shown itself to be in sympathy with the object of the resolution. He did not see why it was opposed now.

The Hon'ble Mr. Stone said that the Committee was already working in that direction. It was very undesirable to pass a resolution on the very subject matter of that committee.

Mr. Hunter in opposing the resolution said that he did so in the interests of students.

Father Penn supported Mr. Hunter.

M. K. B. Ramanathan in supporting the original motion, said that students would be encouraged to push up in each of the branches of the Examination and that the University course was not likely to suffer.

Mr. Govindaraghava Aiyar in further supporting the resolution said that if the Senate made up its mind to have the compartment system, it would find it easy to make its recommendation. The report of the committee would not help to arrive at a conclusion.

Mr. Littlehales' amendment to refer the matter to the committee was lost, 25 voting for and 34 against the amendment.

Mr. Ramalinga Reddi's proposition was carried by 35 against 21.

VARIOUS COURSES OF STUDIES IN B. A.

Mr. S. Kuppaswami Sastri moved a number of connected resolutions to secure greater co-ordination among various courses of studies and effect simpli-

fication in those courses so that the burden on the various colleges might be minimised and a larger number of candidates might be attracted to those courses of studies. He then explained the complications in the existing regulations which were far from desirable.

On the suggestion of Mr. Hunter he withdrew one of the resolutions and the rest were carried.

M. A. DEGREE.

Mr. P. V. Seshu Aiyar moved a resolution to enable candidates to appear for M. A. in 1917, 1918, 1919 and 1920 under the Transitory regulations.

Mr. K. B. Ramanatha Aiyar seconded the resolution which, he said, asked for the extension of the Transitory regulations.

Mr. Hunter opposed it for the reason that the Boards of Studies were already considering the question of M. A. and B. A. Honours. They might recommend to confer M. A. Degree without undergoing an examination. The resolution was wholly unnecessary in the circumstances.

Mr. Seshu Aiyar's proposition was put to vote 22 voted on either side. With the President's casting vote the proposition was carried.

A UNIVERSITY BOARD OF ACCOUNTS.

Mr. Natesan moved for an adjournment for the day on the ground that there would be a considerable discussion on the proposition relating to the University Board of Accounts and the time was already 7-15 P.M.

Mr. Littlehales said that as a point of order was going to be raised, there would not be much discussion on that proposition.

Mr. Justice Oldfield rose to a point of order in regard to the resolution of Mr. K. V. Rangaswami Aiyangar relating to the University Board of Accounts. He said that the Act provided for the Government of the University by means of two bodies, the Senate and the Syndicate. Other bodies referred to in the Act, the Boards of Studies and the Faculties had no power to take independent action and their functions were merely to report to the Syndicate or to the Senate. The resolution proposed to set up a third independent establishment. The Act did not provide for a third independent body.

Mr. Littlehales in support of the above view said that the Syndicate as executive body, should prepare the Budget and that function was vested by the statute in the Syndicate. If the Budget was to be drawn up, it could not be drawn up by anybody outside the Syndicate. The constitution of the Board of Accounts was out of order.

Mr. K. V. Rangaswami Aiyangar said that all the Indian Universities were under the same Act. If any illegalities existed they must have struck other Universities. The Boards of Accounts had been in existence in other Universities.

Mr. G. A. Natesan contended that if it was said that the executive Government was vested in the Syndicate it might be said that the Senate had no matter of right to inquire into those things. Then it would be a serious affair. That point of view also should be pressed.

Mr. Justice Oldfield said that it was no reason to break the law here, because other Universities were breaking the law. He added that there were two hypothetical cases and the Vice-Chancellor had to rule on them.

The Vice-Chancellor:—I must take time to consider this point of order.

On the motion of Mr. G. A. Natesan the meeting was adjourned to 4-30 P. M. to-day.

The Senate resumed its sitting on Saturday, the 25th November 1916, at 4-30 P. M. in the Senate Room at Chepauk, with the Vice-Chancellor, Sir P. S. Sivaswami Iyer in the chair.

A UNIVERSITY BOARD OF ACCOUNTS.

After the meeting was duly constituted the Vice-Chancellor in regard to a point of order raised by Mr. Justice Oldfield relating to the resolution of Mr. K. V. Rangaswami Iyengar suggesting the formation of a Board of Accounts said that he had very carefully considered the point and the conclusion he had arrived at was that the resolution for the appointment of a Board of Accounts was not "ultra vires". It was not inconsistent with any provision of the Universities Act of 1857. Section 8 gave a very large measure of power to the Senate to act in such a manner as to promote the best interests of the University. With reference to the suggestion that there was no express provision for the measure in the Act, the Vice-Chancellor referred, as a matter of analogy, to the existence of the Finance Committee though the Government of India Act was silent about it.

The clause in the resolution which laid down that "the Syndicate shall not have power to vary or to depart from the Budget, as prepared by the Board of Accounts, without its consent or without the sanction of the Senate" was out of order, as the Senate had no power to delegate its power of sanction to the Board of Accounts.

After the Vice-Chancellor had given his ruling on the question of order raised by the Hon'ble Mr. Justice Oldfield, Mr. K. V. Rangaswami Iyengar moved the following proposition omitting the clause ruled out of order.

"That the following Regulation constituting a University Board of Accounts be added to the existing Regulations, and placed, numbered serially after Regulation 422 as a separate chapter bearing the title 'XX. Board of Accounts':—

'CHAPTER XX—BOARD OF ACCOUNTS'.

"A Board of Accounts consisting of the Vice-Chancellor as President, and three Fellows of the University, not being members of the Syndicate as members, shall be appointed annually by the Senate, not later than 31st December of each year, and the Board so constituted shall hold office for one year commencing with 1st January following.

The Syndicate shall arrange for the elections to the Board.

The Registrar shall be *ex-officio* Secretary of the Board but shall not be entitled to vote at meetings of the Board.

Members of the Board shall be eligible for re-appointment at the expiration of their office. All vacancies of the Board occurring between two annual elections shall be filled up, by nomination, by the Vice-Chancellor.

The Board shall meet ordinarily every three months and at other times, when convened by the Vice-Chancellor.

Three members shall constitute a quorum.

The budget of the University for the succeeding official year (i.e. the 1st April to 31st March) shall be prepared by the Board of Accounts, in consultation with the Syndicate, and submitted to the Senate at the meeting in the month of March.

The Board of Accounts shall have power to examine and audit the University accounts and the accounts of the Endowments and Trust Funds, consider ways and means and the financial effects of any important measure in contemplation, and to make recommendations, when necessary, to the

Syndicate or to the Senate, on all matters relating to the finances of the University. It shall also make an annual report to the Senate on the special features of the finances of the preceding official year."

In doing so Mr. Rangaswami Iyengar said that at the outset he wished to point out that such an institution had been in existence for a fairly long time in the other Universities in India. The smooth working in the other Universities would remove the misapprehension from several minds that the creation of the Board of Accounts would give room for the formation of dual agencies controlling the finance of the University. The Board of Accounts would give help to the Syndicate and would not check its work. The authoritative opinion of an independent body like the Board of Accounts, would only add strength to the decision of the Syndicate on the financial question of the University. The Board would have two sets of powers, one obligatory and the other optional. The presentation of the Annual Budget would form its chief duty. It would also lie within its province to present the Annual Report to the Senate on the financial working of the University. The necessity for the existence of such a body would be obvious from the fact that sometime ago they were trying to get ways and means to avert a financial catastrophe. A committee was appointed to work into the matter and devise methods to avoid financial strain and strengthen the financial condition of the University. A permanent institution like the Board of Accounts he had proposed to bring into existence would be a valuable institution and it would undertake the full responsibility in the matter of University finance. It would be a business assembly and there would be no speech making or debate there. It would be a silent working body with business experts on it.

The Registrar was not a member of Syndicate and he was not a member of the Senate. Similarly he would not be a member of the Board of Accounts. He would assist the Board by being the *ex officio* Secretary of the Board without power to vote at its meetings.

The institution he was proposing to bring into existence was no new device for the Madras University alone. The success of the institution in other Universities was a guarantee that it would be a successful institution in Madras also.

It was always bad business to have spasmodic enquiry into their financial condition. He had no doubt that the Syndicate was enquiring into the question of finance. But the financial question was one of its many functions. The appointment of a Board of Accounts with defined duties would go a great way to improve the financial condition of the University. In the preparation of the Budget the Board would recognise the payment for the inevitable expenditure and in consultation with the Syndicate make provision for other items that would be considered necessary, and submit the Budget for sanction to the Senate at the meeting in the month of March.

There was no question of the curtailment of the powers of the Syndicate. The appointment of the Board would facilitate the smooth working of the Syndicate since it would lighten its burden in matters relating to finance.

There was no reason whatever to deprecate any suggestion in favour of the resolution. It seemed to him that it would be wise to follow the example of other Universities in the matter.

The Syndicate should have a large number of educationists to discuss the questions relating to the conduct of examinations and appointment of University Professors and Examiners. The Board of Accounts needed the services of a few business men who would deal only with the finance of the University. The members of the Syndicate did not vacate their seats at the same time while the members of the Board would vacate their seats at the end of every year.

The Board might be asked to make suggestions to the Syndicate and the Senate on questions of finance and it would act as a Finance Committee to the Senate. The creation of the Board of Accounts would not be a sort of encroachment upon the executive authority of the Syndicate.

Mr. K. Ramannujachariar seconded the resolution.

Mr. James in opposing the motion said that the speech of Mr. Rangaswami Iyengar produced the impression that the financial condition of the University was in a bad way for want of such a Board. It appeared to him that the University never suffered for want of such a body. The Syndicate had a financial committee that looked after the finance of the University. Nothing was done without the knowledge of the Senate. The resolutions of the Committee were duly considered by the

Syndicate before they were submitted to the Senate for sanction. There was no need for the proposed Board of Accounts.

Mr. Littlehales in opposing the motion said that the proposed Board of Accounts would be a perfectly useless one. It would serve no good purpose. His first contention was that the work of the proposed Board was a portion of the work of the Syndicate. The Syndicate was the executive government of the University. If the Syndicate did not do its duty, the remedy lay in the hands of the Senate. The proposal was that the Senate as a body should delegate its function of investigation to a strange body whose members would be in complete ignorance of the details of the administration of the University. The speaker then looked around and said "All round me I find educated men, educated in Law, Medicine and Arts, where are the business-men?"

Mr. Natesan said, "We all do business."

Mr. Littlehales continuing said that the Syndicate should not be deprived of its function and the Budget should not be drawn up by a body of incompetent men. Sometime ago a clerical error had occurred and it had created much of talking in the Senate. The small body of four men could not easily get the information required for the preparation of the Budget. It appeared to him that no useful purpose would be served by giving effect to the proposition.

The Hon'ble Mr. Stone in opposing the resolution said that such an advisory body as the proposed Board of Accounts would not be serving any useful purpose. The Budget that would be drawn up by it would not have any binding force on the Syndicate or on the Senate. It would be submitted to the Senate for sanction. The Senate would not be legally bound to carry out the provisions of the Budget. The proposed Board of Accounts would become an advisory body and it would be there like the Finance Committee referred to by the Vice-Chancellor.

Dewan Bahadur L. A. Govindaraghava Iyer said that Mr. Littlehales had stated that he could not find business-men in the Senate. The "business portion" of the University work was done by the Syndicate which required 14 men. When it was found possible to get these 14 men it would not be a very difficult matter to secure the services of three or four men who would constitute the Board of Accounts. The Budget would be prepared by the

Board only in consultation with the Syndicate. It was very desirable that a small compact body of men should be asked to scrutinise the finance of the University. If there should be two independent bodies dealing with the financial questions, then the Senate would be in a good position to do what was proper in the matter.

The fact that they desired to follow the example of other Universities was a clear proof that they passed no reflection on the working of the Syndicate.

Mr. K. B. Ramanatha Iyer said that he was surprised that the Senate did not give to the resolution the support it needed in virtue of its usefulness and importance. Sometime ago they had a sorry spectacle. It was really surprising to him that even that advisory body was not welcome. The financial condition of the University demanded a little more scrutiny and improvement.

Mr. G. A. Natesan said that the proposal would give every member of the Senate an opportunity to serve in the Board of Accounts and become closely connected with the administrative and financial affairs of the University. The effect of the resolution was not fraught with any danger to the University. It afforded the members of the Senate a large share of responsibility in the working of the University. The preparation of the Budget by the Board would avoid any complication in the working of the details relating to finance because the Board would be in a position to give the subject its full attention and consideration.

Dr. Nair said that he was sorry to see that so much time was wasted over such an impracticable proposal. It would be an easy matter for the Registrar and his clerks to prepare the Budget, for they knew the details of work much better than a handful of men that would constitute the Board of Accounts. The Board could only offer some suggestions to the Senate and it could not force its Budget on the Senate. The same suggestions would conveniently be given by the Syndicate themselves. In conclusion he said that no useful purpose would be served by the proposed Board and that the Senate might pass on to the next resolution without wasting its time any further over that resolution.

Mr. K. V. Rangaswami Iyengar in reply said that he knew that there existed a Finance Committee even within the Syndicate. The appointment of a Board of Accounts would simply add that Committee in having an effective control over the finance of the

University. The existence of two different independent bodies would tend to increase the efficiency of working relating to finance. He did not suggest any reflection upon the working of the Syndicate. All he desired to do was to strengthen its hand by lightening its burden.

With reference to the so-called impracticable character of the proposal he had only to point out to the success of the measure in other Universities.

The resolution was put to vote and lost, 22 voting for and 34 against it.

THE UNIVERSITY BUDGET.

Mr. C. P. Ramaswamy Iyer then moved the following resolution:—

That the following be passed as Regulation No. 91-A:—

The Syndicate shall prepare annually a budget with reference to the income and expenditure of the University for the ensuing year and shall submit the same to the Senate for its sanction at its meeting in the month of March, the Senate being at liberty to modify, add to or omit any of the items specified therein. The draft budget shall be circulated to the members at least three weeks before the meeting and any member of the Senate is at liberty to move any resolution relating to any question covered by any of the heads therein of which he has given ten days' notice to the Registrar. The allotments sanctioned in the Budget shall not be exceeded except by a resolution of the Senate to be passed at an ordinary or special meeting thereof.

The resolution was seconded by Mr. G. A. Natesan.

The Hon'ble Mr. Stone rose to a point of order and asked the Vice-Chancellor if the resolution was in order in view of the last sentence in the resolution.

The answer of Vice-Chancellor was in the affirmative.

Mr. C. P. Ramaswamy Iyer in moving the resolution said that it was stated that the Syndicate was the only competent authority to deal with the financial affairs of the University. Section 15 of the Universities Act merely delegated to the executive authority of the University the power of the Senate. The residuary power was vested in the Senate. The Senate should therefore have a definite idea of the income and expenditure of the University. If the Senate was to be held responsible for the administration of the University finance it was

but very reasonable that the Senate should know the directions in which expenditure was taking place. He was not making any reflection or reproach upon the working of the Syndicate. There were some items in the programme of work before the Syndicate which ought to form the subject of discussion in the Senate. Finance was one such item. It ought to be open to the Senate to supervise the work of the Syndicate in the matter of finance.

Mr. Justice Oldfield said that he was prepared to give his support to the general principle contained in the resolution but not to the resolution as it stood. He said that the resolution was deficient and incomplete. There would be occasions when the Syndicate would have to spend money in anticipation of sanction by the Senate at the next meeting. Due margin should be given to such contingencies. Further allotments from one item to another might be made by the Syndicate and some kind of expenditure or other would have to be made at the earliest opportunity. The Syndicate could not well afford to wait for the sanction of the Senate on emergent occasions. He approved of the general principle contained in the resolution and desired to refer the question of the drawing up of the Budget and other things to a Committee consisting of Mr. C. P. Ramaswamy Iyer (Convener), Rao Bahadur T. Vijayaraghavachariar, Mr. G. A. Natesan, Mr. James, Mr. Littlehales, Dr. Nair, and Mr. Justice Oldfield.

The Hon'ble Mr. Stone seconded the motion of Mr. Justice Oldfield to refer the question to a Committee.

Mr. C. P. Ramaswamy Iyer said that he had no objection to the motion of Mr. Justice Oldfield provided the general principle contained in the resolution was accepted by the Senate.

Dr. Nair supported the motion of Mr. Justice Oldfield and said that the Budget must be prepared by the Syndicate and the power to sanction, modify or reject it must be left to the Senate. The principle, he said, ought to be accepted by all in the Senate.

The motion to refer the question to a Committee was carried.

B. A. (HONOURS) AND M. A. EXAMINATIONS IN THE MOFUSSIL CENTRES.

Mr. K. V. Rangaswami Iyengar then moved the following resolution:—

"That, the Syndicate be requested to hold all

such examinations for the Degree of Bachelor of Arts (Honours) or for the Degree of Master of Arts, without Honours, as may be conducted by written papers, at every centre at which a college affiliated to the University in the Branches, Groups, or Parts concerned exist and desires to present candidates for examination in such Branches, Groups or Parts, at such centre.

In doing so Mr. Rangaswami Iyengar said that the students who came to Madras from the mofussil colleges for examination were subject to a great deal of hardship and suffering. That was the opinion of many parents in the mofussil. Geographical and climatic considerations ought to be taken into account; the inconvenience of a large number of students in going to Madras for the purpose of the examination formed the cause for great discontent. The Madras students were at an advantage. They had their examinations in their own place. It was with great difficulty the mofussil students found lodging and boarding in Madras. New surroundings and changed climatic conditions upset many among them. A sense of equity ought to influence the Senate to accept the resolution.

Rev. E. M. Macphail seconded the resolution.

AN AMENDMENT.

The Rev. F. Bertram moved the following amendment.

"That in the first line the word 'such' and in the fourth line the words 'as may be conducted by written papers' be omitted."

In moving the amendment he said that the refusal to hold the examinations referred to in the resolution was made several times before and the Syndicate did not think it fit to give any reasons for their refusal. A little before the time of the examination his students at Trichinopoly went to him and asked him to move the Syndicate to hold the examinations in Trichinopoly. They had even said that they would even pay extra fees for the purpose. In the face of all that the request was not complied with.

Holding of examinations only in Madras made many students in the mofussil change their places and subjects. He was at a loss to know why the Syndicate should reject their request without proper reasons.

Students who came to Madras suffered very much owing to the difficulty of getting good boarding and lodging. Students would feel at home if examined in their own colleges and in their own labora-

tories. Students who came to Madras were upset by the new faces of examiners and strange conditions of the laboratory; most of them grew nervous and perplexed. The mofussil colleges could not be said to be behind the Madras colleges in their general equipment demanded by the University rules and often scrutinised by the University Commission. An affiliated college was expected to be well-equipped.

With reference to the question of uniformity in the examination he contended that even in the same laboratory they could not find that uniformity.

Mr. Gardner seconded the amendment.

Mr. Mark Hunter opposed the amendment and said that the oral examination in some subjects could not be carried on in the mofussil with as much facility as in Madras when the chief examiners, most of them at least, were in Madras.

The Hon'ble Rev. George Pittendrigh supported the resolution of Mr. Rangaswami Iyengar and opposed the amendment.

The Rev. Moffat opposed the resolution as well as the amendment as measures of no practical value.

Mr. K. V. Rangaswami Iyengar in speaking on the amendment said that the University should show equality of treatment to all students alike. The difficulties suggested were not too great to be overcome.

Mr. Littlehales said that he was in sympathy with the proposition that the students should be examined in places where they were educated and trained. The matter before the Senate was of a technical character. The opinions of the Boards of Studies should be obtained in the matter before they did anything with regard to the resolution. He proposed that the whole question be referred to the Boards of Studies for opinion.

Dr. Symonsen seconded the motion.

Mr. G. A. Natesan said that he was not prepared to support the motion of Mr. Littlehales. Summoning the several Boards of Studies to Madras would entail considerable expenditure to the University. No speaker convinced him of the existence of great difficulties in accepting Rev. Bertram's amendment. If need be, some of the chief examiners might be requested to go to the mofussil to conduct the oral examinations referred to. Candidates who had been working in one particular laboratory would find it difficult to work in a strange laboratory. It was

clear that the mofussil colleges were handicapped in the matter. Rev. Bertram had already ventilated the grievances of many students in the mofussil.

Mr. K. V. Rangaswami Iyengar deprecated the idea of referring the matter to the Boards of Studies. The Boards of Studies could not be got together in a moment's notice. It would surely be a hardship to call on the mofussil men to come to Madras to consider the question at great personal inconvenience.

VICE-CHANCELLOR'S INTERPRETATION OF THE RESOLUTION.

The Vice-Chancellor at this stage pointed out that the proposition was simply to request the Syndicate to hold the examinations referred to, in the mofussil. Nothing could be practically done in the matter at the present time even if the proposition be passed. The Syndicate would meet the request as far as possible.

Mr. Littlehales withdrew his motion.

Rev. F. Bertram's amendment was put to vote and carried.

The proposition of Mr. K. V. Rangaswami Iyengar as amended was also put to vote and carried.

SYNDICATE MEMBERS AND EXAMINERSHIP.

Dewan Bahadur L. A. Govindaraghava Iyer then moved the following resolution:—

No member of the Syndicate shall be an examiner of the University, provided that, if any member of the Syndicate is an examiner in consequence of an appointment made before this Regulation comes into force, this Regulation shall not render such appointment invalid.

The Hon'ble Mr. Stone asked the Vice-Chancellor if the resolution was in order.

The Vice-Chancellor ruled that it was not inconsistent with any regulation. Mr. F. E. Corley said that the Regulation proposed was not for the appointment of examiners but it related to the non-appointment of examiners and as such the resolution was not in order.

The Vice-Chancellor remarked that there was no substance in the objection of Mr. Corley.

Mr. Govindaraghava Iyer had given notice of his intention to move the following alternative resolu-

tion if the first resolution was not passed. Since both the resolutions related to the same matter with a slight difference he proposed to move the alternative resolution also and speak on both of them:—

"No member of the Syndicate shall be an examiner of the University except with the sanction of the Senate previously obtained, but if any member of the Syndicate is an examiner in consequence of an appointment made before this Regulation comes into force, this Regulation shall not render such appointment invalid."

Mr. Govindaraghava Iyer said that he did not want to belittle the importance of the Regulation proposed by him with a view to increase the efficiency of the University. The Regulation was not intended to interfere with the financial side of the University. Some time ago it was the rule of the Madras University that the members of the Syndicate should not be examiners. That was before the new University Act came into force. It was one of the great merits which Dr. Miller used to claim that Syndicate members were not examiners. The Syndicate had much to do with the administration of the University. Holding of examinations and declaration of results formed the most important work of the University. Fixing of the fees of the examiners and supervising their work formed also a part of the duty of the Syndicate. His chief reason for introducing the resolution was that the way in which the conduct of the examinations was supervised and the examiners controlled was largely interfered with by the Syndicate members being examiners themselves. Members of the Syndicate would not prove good judges of their work when they happened to be examiners themselves. If an examiner took a view on a particular matter as an examiner it would be very difficult for him to change his opinion as a member of the Syndicate. Such a dual responsibility vested in one and the same gentleman would be prejudicial to the best interests of the University. In the event of an extraordinary contingency arising, relief could be sought through the second resolution moved by him. It had made a feasible provision for such a contingency. Owing to the paucity of men the Syndicate might appoint one of its own members for the examinership. There was wide discontent with the way in which the exam-

inations were held and the results declared. It was so specially with reference to the intermediate examinations. It was well known what a powerful factor the chief examiner in English happened to be in the Syndicate. They also knew quite well how difficult it would be to induce the chief examiner in a subject to take a lenient view of the situation when there was thorough slaughter in his subject. Such being the case how could the Syndicate influence one of its members who happened to be the chief examiner. That state of affairs could not long continue in the interests of the University. When they knew that they had nothing to lose but they had something to gain by adopting the Resolution, he saw no good reason why the Resolution should not be passed.

It was often said that the members of the Syndicate were over-burdened with work.

If the Resolution be accepted the work of the Syndicate would be lightened to a great extent.

The Hon'ble Mr. Yakub Hasan seconded the proposition.

Mr. C. P. Ramaswamy Iyer then moved his amendment which ran thus:—

"That in the first branch of the proposition, the words beginning with 'provided that' up to the words 'comes into force' be left out in order to insert the following words, viz. 'or otherwise hold or accept any office or position involving the receipt of a salary, fee or honorarium provided that if any member of the Syndicate is an examiner or has accepted any such position or office before this Regulation comes into force.'"

Rev. Macphail said that the amendment was vague and contemplated substantial alterations and as such could not be allowed.

The Vice-Chancellor remarked the amendment was too general.

Mr. C. P. Ramaswamy Iyer wanted permission to add the words "from the University" after the word honorarium in the amendment. That permission was not granted. Mr. Ramaswamy Iyer said that in that case he would not move his amendment at all.

Mr. F. E. Corley in opposing the resolution said that the fact that the same persons were again and again appointed Syndicate members showed that the Senate had great confidence in them. Men who

would prove best Syndicate members would be in many cases men who would prove best examiners. The resolution would preclude the possibility of the best selection of examiners and the efficiency of the work of the University in the matter of conducting the examinations would suffer.

Mr. K. B. Ramanathan said that they should have two sets of persons, best qualified persons, one set to control the conduct of the examinations and the other to run the administration of the University. Further there was a loud complaint that the Syndicate members had very heavy work to do. Such a heavy burden would be lightened by the passing of the resolution.

The Hon'ble Mr. Stone said that Mr. Corley had put the point as well as it could be put. People who served on the Syndicate thought it was a great privilege to hold that responsible office. They got no remuneration for their hard work. It was but fair and just that those people should not be disqualified to become examiners. There would be great difficulty of securing the services of good examiners if the resolution should be accepted.

Mr. G. A. Natesan said that the Syndicate was empowered to appoint examiners. It was not empowered to appoint its own members as examiners. It was a good principle that the body having the power to appoint others as examiners should not be allowed to appoint its own members as examiners. He had obtained the opinion of a lawyer of some standing and reputation on the point and the legal opinion was to the effect that the appointment of the members of the Syndicate as examiners by the Syndicate themselves was illegal.

Mr. Justice Oldfield said—"Was the legal opinion paid for?"

Mr. G. A. Natesan continuing said that there were many public spirited men among the lawyers who would be prepared to give their opinion on such public matters free.

With reference to the resolution he further said that the Syndicate formed a close corporation and it would not be fair that it should appoint its members as examiners.

It was 7.35 P.M. at this stage. Dr. Symonsen moved that the meeting be dissolved. Rev. Gardiner seconded the motion. Mr. Govindaraghava Iyer said that the discussion on the resolution had proceeded very far and it would be unfair to close

the meeting without a definite understanding on the point.

Dr. Symonsen withdrew his motion.

Mr. L. A. Govindaraghava Iyer said in his reply that the old practice was strongly supported by no less a man than the greatest educationist of Southern India, Dr. Miller. His resolution would strengthen the efficiency of the University work. It should not be understood that he was casting any reflection upon the work of the Syndicate.

The resolution was put to vote and lost, 20 voting for and 27 against it.

The proceedings of the ordinary meeting then came to a close at 7.50 P.M.

A SPECIAL MEETING.

A special meeting of the Senate for the disposal of urgent business was held immediately after the proceedings of the adjourned meeting came to a close. At this stage several members left the meeting.

Mr. K. V. Rangaswami Iyengar moved for the adjournment of the meeting and said that the special meeting might be held on the day prior to the ordinary meeting in March 1917.

Mr. Govindaraghava Iyer seconded the motion.

The motion for the adjournment was put to vote and lost.

On the recommendation of the Syndicate the Hon'ble Mr. J. H. Stone moved the following resolution:—

That for the following Transitory Regulation adopted by the Senate at its adjourned meeting held on October 28, 1916:—

As and when the members of the Syndicate holding office at the time the revised Regulations providing for the election of members of the Syndicate by the Faculties receive sanction and become operative first cease to hold office under the Regulations, the vacancies so caused shall be filled in the manner following:—

The first two vacancies shall be filled under the revised Regulations by the Faculty of Arts; the next three by the Faculty of Law, Medicine, and Engineering in their order, and the remaining vacancies by the Senate.

The following Transitory Regulation be substituted:—

As and when the members of the Syndicate holding office at the time the revised Regulations providing for the election of members of the Syndicate by the Faculties receive sanction and become operative first cease to hold office under the Regulations, the vacancies so caused shall be filled in the manner following:—

The first two vacancies caused by members of the Faculty of Arts ceasing to hold office as members of the Syndicate shall be filled under the revised Regulations by the Faculty of Arts; the first vacancies caused by members of the Faculty of Law, Medicine, or Engineering, ceasing to hold office shall be filled under the revised Regulations by the Faculty of Law, Medicine, or Engineering respectively; the remaining vacancies shall be filled by the Senate.

Lt. Colonel Miller, I.M.S., seconded the resolution.

Mr. Natesan wanted to know if the resolution was of an urgent nature.

The Vice-Chancellor said that it was considered urgent by the Syndicate.

Mr. Govindaraghava Iyer said that the discussion on the subject was taken up at a previous meeting and dropped. He hoped that at a future time the Syndicate would not resort to the method of rushing through such matters at a special meeting.

The resolution was unanimously carried.

The meeting came to a close at 8.5 P.M.

Reviews and Notices.

A SHORT HISTORY OF THE ENGLISH PEOPLE, BY J. R. GREEN. REVISED AND ENLARGED WITH EPILOGUE, BY ALICE STOPFORD GREEN. (MACMILLAN & Co, 1915. pp. 1040.) 5s. net.

Mr. Green's *Short History of the English People* was published more than forty-two years ago and has gone through numerous reprints and one or two editions. It is not necessary to dilate in a review of this last and final edition on those remarkable and excellent characteristics of the work, like its picturesque and high-flown but at the same time very literary style, the enthusiasm and moral elevation which is imported into every page of it, and the essential continuity in the life and greatness of the English people which is its main underlying theme. The same characteristics have been maintained in as high a level of excellence in this epilogue which occupies nearly two hundred closely printed pages, and which provides an excellent summary of the various phases of British history for the past one century. Mrs. Green, in a fitting manner, continues her husband's views of political and economic questions and shows the same learning that he displayed in his championship of struggling nationalities and growing democracies. The social and the industrial revolutions of the last century, the growth of those factors which have built up the power of the people like working-class combinations, the development of socialistic ideas, etc., as well as the growth of the principles of nationality and democracy which have been the main guiding forces of the political development of last century, are portrayed in a very effective and sympathetic spirit. The various phases of England's colonial policy, as well as the good and bad aspects of her imperialism have also been very well pointed out. In the epilogue we find the same powerful and strong descriptive faculty, the same acute portrayal of cause and effect, the same glowing enthusiasm for the people and the same importance attached to spiritual and moral influence, as we find in Mr. Green himself.

Faults indeed can be found in the book as it is. We may criticise that Mrs. Green has not chosen to rectify the undue bias towards Teutonism which was displayed by her husband, and which made him entirely under-estimate the other racial and cultural factors which have contributed to the formation of the English nation. His other weakness is his over-emphasising of the importance of particular events, and want of sufficient

co-ordination between the history of England and that of the world outside, are also still allowed to continue. But it is necessary for us to remember that the book in its old form, remains, in spite of its faults, a classic and a treasure highly prized by all English-speaking people. Mrs. Green herself says in the preface, that she has been very careful not to interfere in any way with the plan or structure of the book and not to alter its order, save in a few exceptional cases, where she knew Mr. Green's wishes or where some change in chronology made some slight change in arrangement necessary. The whole book ought to be taken in the spirit in which it is given; and it is really a boon to the public that the great work is offered for the very low price of five shillings.

HISTORY OF INDIA DOWN TO THE END OF THE REIGN OF QUEEN VICTORIA, BY M. PROTHERO AND MAHAMAHOPADYAYA S. C. VITTHALSHANKAR. (MACMILLAN & Co, 1915. pp. 598.) Rs. 3.

This book is intended primarily to provide the main facts of Indian History in sufficient detail for students going up for the B.A. Examinations of the various Indian Universities. And it satisfies this object in a sense, thoroughly and efficiently. The authors depart from the usual method of confining their main attention to mere political progress and devote themselves largely to describing the social and economic conditions of the people as they prevailed in the various ages. Especially the growth of caste, the various theories put forward as to its origin, the village community, its organisation and working in ancient India, as well as a brief account of Buddhist architecture as seen in Viharas, Chaityas, Stupas, and Caves receive prominent attention. The development of the Mahayana form of Buddhism and of Sakyanism, and of the little later Puranic theology, a brief sketch of the origin of the Rajputs and of the mediaeval University of Nalanda, a glance at the various foreign observers and travellers and an excellent though brief exposition of the various phases of early Indian art, make the treatment of the early period of Indian History eminently suitable for the changed needs of the present day college-student.

The early and mediaeval history of South India, though described in proportionate detail is far from satisfactory; and theories connected with Tamil history and literature not yet conclusively settled are taken as final. There are also slight inaccuracies occasionally which might have been remedied by a careful study of the latest historical

research e.g. the identification of Palakka with Palghat.

Muhammadan India contains a good and readable chapter on Moslem architecture, painting and literature which also tries to sketch briefly the principal Muslim historians and to explain the inter-connection between Islamic ideas and the Hindu Revivalist Movement of Ramananda, Kabir, etc. The Moghul Empire however is not treated with sufficient fulness, while the growth of the Marhattas and of the Sikhs is disposed of in about a dozen pages. The development of the British dominion is treated in the usual manner. And the only noteworthy features here are the comparatively elaborate treatment of the Permanent Settlement and good sketches of the various reforms effected by the E. I. Company and later by the Crown. The foreign and frontier policy of the British in its various progressive stages is not prominently brought out, nor is there a connected account of the attitude adopted towards the Native States.

The book is very handy, and its usefulness is increased by the wealth of illustrations in which it abounds, by the brief but essential bibliographies of authorities given at the end of each period; and by the appendix which provides a tabular statement of the chief dynasties, dates and events.

AN INTRODUCTION TO THE HISTORY OF ENGLAND,
BY EUGENE L. HASLUCK, (A. & C. BLACK,
LTD.: LONDON, 1916, pp. 277.) 2s. 6d.

This new manual is to be welcomed cordially both by teachers and students of the Upper forms and the Intermediate classes of our Presidency, as it fulfils a pressing need of theirs and gives the essential lines on which the various phases of England's growth have developed. The factors which contributed to the foundations of the English state, the mediæval forces of the feudal baronage and the Church, a sketch of the mediæval constitution, i.e., a King limited by feudal law and later by a Parliament of Estates,—these have been succinctly treated. After the Reformation and the constitutional struggles of the seventeenth century, we come to a clear survey of the role of the Eighteenth Century Parliament, to a comprehensive sketch of the wars of Imperial expansion down to 1815 and to a fuller notice of the characteristic features of the nineteenth century democracy. The growth of the Imperial sentiment, the strength and solidity of which are seen in the present war and the pressure of the auxiliary problems of Imperial Tariff, Colonial Conferences,

etc., have also been adequately noticed. The book is very serviceable in enabling the student to grasp the thread of continuous movements which usually run into different ages, and the significance of the marked characteristics of the various periods. It is not, as the preface says, a mere compendium of facts, but puts them in such a way that they are seen in their proper perspective and influence on subsequent history. As the author intends, it may very well be used as the basis for fuller discussion by the teacher of the various topics and for an advanced and critical study of the subject. A number of genealogies and sketch-maps add to the value of the book.

THE PROGRESS TO HISTORY. EDITED BY RICHARD WILSON, B.A. (LONDON) D. LITT. (MACMILLAN & CO.) STAGE I, 1s.; II, 1s. 2d.; III, 1s. 4d.; IV, 1s. 6d.; V, 1s. 9d.; VI, 2s.

The six numbers belonging to this series are a new set of historical reading books. Dr. Richard Wilson has built up a reputation for himself as the Editor of "Progress to Literature" series of English Readers and as the author of "Sentance Building." He is remarkably clever in designing and editing books for children and the volumes before us bear ample testimony to it. Stage I. in this series is called "Pictures of Long, Long Ago." It was the wish of many to interpret and illustrate history by pictures which should tell us how men and things appeared to the lookers-on of their own day, and in this book we have a number of excellent illustrations, some of them in colours, which are a study by themselves. These introduce the readers to Ancient Egypt, to Babylon, to Greece, to Rome before taking them to Britain and England. Stage II. is *Peeps into old Books* and it tells children how history was written in ancient days and points out how a made-up story tell us many things which are really true. Stage III. is on *Decisive Days in British History* and some of these were days of battle, days of landings upon England's shores, of peaceful days when some great event took place which changed the whole course of the nation's history. Stage IV. contains the "Story of the United Kingdom" and hence deals in turn with Scotland, Ireland and Wales, and after that, passes on to the chief events in the history of the United Kingdom from the time of James I. to that of Queen Victoria. The guiding principle has been more to impart ideas than to crowd the narrative with facts and names. Stage V. is entitled the *Children of the Seven Seas*. The aim of the author in this book has been to present a succession of pictures of the work accomplished by men of mark who have taken up the task of

Empire-Building. Dr. Wilson is a firm believer in emphasising the moral issues of history, to keep up the high standard of patriotism and the method he follows in this book, viz. to make the course of events in the mother country the central unifying idea of the whole story, does secure the aim. Stage VI, the last in the series, deals with *Britain and European Liberty*. It rightly deals with the history of the period which the pupil has most to do with and a knowledge of which would help him to make up his mind in a few short years on matters of greatest personal and national importance. It is this world-wide in its scope.

The stories are narrated in what is known as a graduated over-lapping or the "tortoise" system. This novel system while, avoiding, the defects of the periodic and the concentric systems, viz. monotony and lack of continuity, combines the advantages of both, viz. providing variety, and enlarging knowledge by constant accretion. Continuity is preserved by covering the whole ground in each number and at the same time interest is maintained and progress ensured by the new matter introduced.

How much we wish that Indian History is presented to children on the lines suggested in these books! The subject lends itself to such treatment. There is abundance of material; high class illustrations can be easily procured; publishers would readily come forward to publish the books, but we ask 'Are there none among Indians who can give their thought to the subject and produce books of this kind?'

These books by Dr. Wilson deserve to be read widely, specially by the students in our secondary schools. They are a store-house of information which every student ought to learn, told in a most interesting way. Stage VI. is a book which every VI Form student would do well to read.

A SCHOOL HISTORY OF INDIA, BY P. A. WADIA, M.A.,
PROFESSOR OF HISTORY, WILSON COLLEGE,
BOMBAY. (K. & J. COOPER, BOMBAY) Rs. 1-6-0.

The enterprising educational publishers of Bombay, Messrs K. and J. Cooper, have so far published three books on the History of India. We had occasion to review the two books, both entitled "A First History of India." The volume before us by Mr. Wadia is a more advanced book, being intended for High School classes. The book covers the whole ground of Indian History and it has in addition a few chapters on the "Administration"; "Economic Progress and Material Progress" and "Educational

and Moral Progress of India." The book contains a few good illustrations and is well got-up. We do not know where the publishers got from for these three books the portrait of Buddha which, with the caste-mark on the face, would make the South Indian reader mistake for one of Ramanuja or of Manavalamamuni. The book has some good points and in many respects is a decided improvement over books on India written by Missionaries or the rabid type Anglo-Indians who can see nothing good in Pre-British India. We have a right to demand that History written by Indians and published by Indian publishers for the benefit of Indian students should aim at truth, Mr. R. C. Dutt's School History of India does not embody the results of the latest researches but Indian History writers ought to learn a lesson from him and be actuated by the same spirit as actuated him. Prof. K. V. Rangaswami Iyengar's "History of Ancient India" is the model for others to follow and judged by this standard, we confess the book falls short of the ideal. In the book before us, the "Myth" of the Aryan invasion is repeated; the account of the Vedic religion does not differ from what we find in books written by Europeans. The Brahmin is made by Mr. Wadia also, responsible for all the ills of the Modern Hindu Society. It is hard to conceive what is gained except stirring up of bad blood by such statements as "The growing supremacy of the Brahmins has made them intent on promoting their own interests." The virtues of the ancient Indian Brahmin, his plain-living and high thinking, his self-denial, all count for nothing. We must feel thankful to Mr. Wadia that like the Missionary Thompson, he has not made the Brahmin responsible for the great Indian Mutiny!

We have to search in vain for any reference to the results of latest researches. Kutb-ud-din is made the builder of the famous Delhi minaret. The account of Sivaji's murder of Afzal Khan and of the Black Hole incident is narrated with all the freshness of one who had been on the spot. The sooner Indian teachers recognize that no harm would come if both the sides of the picture are presented to Indian school children, the better for Indian school-children. We have again the traditional accounts of the East India Company's apologists of many of the incidents that led to the conquests of the different States of India. Among the causes that led to the great Indian Mutiny, we find mention made of the Cook and Bull stories that the Mutiny was the result of the

building of the railways and telegraphs, the spread of education, the labours of Christian missionaries, &c. It is too late in the day, after the testimony of Lord Roberts, to deny that the one important cause of the Mutiny was the fact that the new Enfield rifles were greased with the fat of the pig and the cow. It is only those who are wanting in historic spirit that would continue to assert that the Hindu and Muhammadan sepoy "devoured the story" of the greased cartridge being ignorant and superstitious.

We would have immensely liked the book had the author devoted more space to a description of the life of the people and the history of their institutions and less to details about the different dynasties and wars. The few paragraphs that we have on the life of the people in the different epochs are well-written. We are particularly glad to find that he had done justice to some of the much-abused Muhammadan Emperors of Delhi and that his verdict on the Afghan rule in India is on the whole impartial. But we confess to a feeling of surprise when we find no mention made to Sankara, or to the system of Local Self-government under the Chola kings, the Universities of Takhasila, Nalanda and Kanchni or to the four hospitals for animals of which Fa. Hian has left us an account. Very little justice is done to the greatness of the Vijayanagar Empire. The special feature in the systems of administration of Alauddin and of Sher Sha is referred to but slightly and the cardinal principle in their system is not mentioned at all.

What does the Indian High School student learn from a sentence like the following:—"Asoka was a hardworking king—as hardworking as Philip II. of Spain?"

We are sorry that Mr. Wadia is distinctly of the opinion "that the treatment by the British nation of the great men who have so ably tackled the problems of the Government of India is not in any way flattering to its pride or good sense"! We call the British a justice-loving nation, because some of the greatest amongst them tried to right the wrongs done to and in India by the great Empire-Builders. We in India want to go back to the days of periodic public inquiry into the affairs of India. In school-books no mention need be made of Olive's forgery or of the misadventures of Warren Hastings or of the scandalous part played by the Marquis of Hastings in the Paine & Co.'s affair. But when mention is made, truth must be spoken, truth

arrived at after a dispassionate and careful inquiry. The historian need not turn himself into an official apologist.

We have no doubt that Mr. Wadia's book is better than many History books written for Indian students but we trust that Mr. Wadia would improve the quality of the book when the second edition is issued.

FACTORIES AND GREAT INDUSTRIES, BY F.A. FARRER, B.A., B.Sc.; TRADE AND COMMERCE, BY A.J. DICKS, B.A., B.Sc. (CAMBRIDGE UNIVERSITY PRESS.) 1s. 6d. each.

The present war is responsible for many things and already Englishmen are anxious that their school children should be taught the story of the industrial and commercial condition of Britain not only that they may rejoice in their country's progress, but also that "they may realize the responsibilities borne by the citizens of the first of all nations." The Cambridge University Press are, in consequence, publishing a series of books called "Cambridge Industrial and Commercial Series" under the general editorship of G. F. Bosworth, Esq., F.R.S. Mr. Farrer has in his book on "Factories and Great Industries" given a popular account of the textile industries that are carried on in the Great manufacturing towns of the British Isles. This book opens with a chapter on the Industrial Revolution and the transformation it brought about by the rousing of the national mind. In the second chapter we have an account of the factory system which was the natural result of the introduction of steam-power and explains how it played a great part in making Britain the greatest manufacturing and trading country in the world and raising it to a position of wealth and power unequalled by any other nation.

Mr. Dicks' book which deals with trade and commerce is also very interesting reading. The opening chapter is on English weights and measures. These and the coinage of the country are historically considered and contrasted with the metric and monetary systems of the continent. The chapters on the Royal Mint and its work, the Post Office and its work are very instructive. The close relation between the Post Office and the life of the people are very clearly brought out. The food-supply of England, her work in foreign lands are dealt with fully. Such difficult subjects as Foreign Exchange, Bill Broking, Britain's Bullion and Gold Reserves are

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so explained that much of the recent financial history of the country is made clear to the young readers.

The books deserve to be read by every Indian school-master. They are written in very simple language. The illustrations are also a special feature of the books.

THE USE OF GLOBES IN ELEMENTARY SCHOOLS, BY LEON O. WILWELL. (GEORGE G. HARRAP AND COMPANY, LONDON.) 1s. 6d. net.

This is a teachers' book and its value is great. In the early stages of geography teaching, the globe must play a very prominent part as it gives a correct conception of the world as a whole and the lessons on it will not only make the subject simpler, easier and more interesting but also give a clear understanding of the first stages subsisting between one part of the world and another.

The aim of the book is to help the teacher not to tell but to teach children by eliciting from them with a globe on hand and thus obtain from individual pupils correct statements of the facts observed. The book is written in very simple language and is best fitted for elementary school teachers.

EDUCATIONAL HANDWORK, BY ALFRED H. JENKINS, PUBLISHED BY THE UNIVERSITY TUTORIAL PRESS, LONDON.

The book supplies the long-felt need of teachers in handwork for a good book containing an adequate account of the different branches of the study, and should find a place in every Kindergarten library. Many of the models are new and original and the printing and binding are all that is to be desired.

"MY BOOK OF ANIMALS" AND "MY BOOK OF DOLLS," BY FAITH ASHFORD. PUBLISHED BY GEORGE G. HARRAP AND CO., LONDON. 4d. each.

The books are intended to provide material for talks, in which young children could gain control over their mother-tongue. The drawings are simple and to the point, the printing is good, and the matter is quite suitable for infants.

"HANDWORK AT THE SCHOOL DESK," BY CONSTANCE BAINES, VOL. I. PUBLISHED BY G. BELL AND SONS.

The book consists of a scheme of garmenting for 5 years. It would be quite suitable for those

who undertook the training of girls in the making of garments but would hardly be suitable in schools.

"HOW TO SUMMARISE, EXPAND OR RECAST," BY MR. J. C. NESFIELD. (MESSRS. MACMILLAN & CO.) 2s.

Mr. Nesfield, the well-known author of many books on grammar and composition, has brought out this very useful book which contains a good many extracts in prose and verse. He begins by showing how any question to condense or summarise any passage should be worked, and, in this connection, has given very valuable instructions to the student. After this theoretical analysis he has worked out a few examples and then gives examples to be worked out. We trust the book will be found very useful both by the earnest student and by the teacher.

"SCHOOL HYGIENE" BY LEO BURGERSTEIN, TRANSLATED BY BEATRICE STEVENSON AND ANNE OSTEN.

We are glad to welcome the translation of this very valuable book by Dr. Burgerstein who is one of those leaders who press the view that the school must itself become a health-promoting agency, and that the school curriculum should be a means which shall so influence pupils as to render them better off in health and vigour. Accordingly he gives practical instructions both in regard to the accommodation of the school-house, and the number of pupils to be admitted to the curriculum, the school hours, etc. We are confident that the book would be found very useful by the school authorities.

BHARATA MANGALASANAM (SANSKRIT-ENGLISH) BY T. E. SATAKOPACHARIAR, B.A., B.L., HIGHER COURT VAKIL, TIRUPAPULUR, CUDDALORE N. T.

This small poem of 4 stanzas is an exceedingly interesting and useful publication. Its timely appearance just now when a thrill of patriotism is passing through the length and breadth of this land will be welcomed by all earnestly as a universal prayer-book well fit to be used by the Hindu youths. The stanzas have a harmonious blending of sweet diction and happy flow in them; and the ideas bespeak of lofty ideals well worthy of being recited and meditated upon. A peep into one's own country's past glory and greatness as always proved to be the one sign-post pointing

to the realisation of many a youthful ideal; and, this Hindu National Anthem will, we are sure, fully facilitate such a peep. The metrical rendering of the Sanskrit poem will serve as help in the understanding of the original which would otherwise be a sealed book to many a youth not knowing Sanskrit. We heartily commend it for the use of all Hindu youngsters in the country as a Handbook of profitable use for daily meditation.

PUBLICATIONS RECEIVED.

- Some Mile Stones in Telugu Literature.—I. The Age of Krishna Deva Raya, by G. K. Subramiah Pantulu, Madras: Read & Co. Re. 1.
- The Psychology of Music, by H. P. Krishna Rao, B.A. Mysore: Wesleyan Mission Press. Re. 1-4-0.
- New Readings from Indian History, by W. W. Hutton, B.D. Bombay: Cooper. Re. 1-2-0.
- The Foundation and Growth of the British Empire, by J. A. Williamson. London: Macmillan. 2s. 6d.
- Talks to Teachers in Elementary Schools, by A. M. C. Arnold (Telugu). Bombay: Longmans. 8 as.
- Ranking Elementary Grade: Question Papers with Answers from 1910 to 1916, by G. S. Ramasami Iyer, D. Com. Bangalore. 4 as.
- Commercial Practice: Questions of the S. S. L. C. Examination with Answers, by G. S. Ramasami Iyer, D. Com. Bangalore. 6 as.
- Macmillan's Graphic Geographies: The British Isles, by B. O. Wallis, B.Sc., F. R. G. S. London: Macmillan. 6d.
- Stories from English History. Part I, by P. K. Subba Rao, B.A., L.T., Taylor High School, Narasapur. 5 as.

Books from the C. L. S. Madras.

- Christ's Message of the Kingdom, by A. G. Hogg, M.A. 10 as.
- Edith Cavell (in Tamil). 1 anna.
- The Supreme Person and the Supreme Quest, by the Rev. R. A. Humb. 1 anna.
- The Story of a Damhan, in Tamil. 1 anna.
- Victory or Defeat: A Temperance Story in Tamil, by Miss Louise Marston. 3 as.
- Prayer in Telugu. 6 as.

Indian Educational Notes.

The Madras Teachers' Guild.—A meeting of the Mathematics and Science Section of the Madras Teachers' Guild was held in the Pachaiyappa's College at 5-30 P.M. on the 29th of November 1916 with Mr. P. Lakshminarasu in the chair. Mr. M. C. S. Anantapadmanaba Rao read a very interesting and instructive paper on 'The Art of Omission in Teaching.' The following are the most important points that he laid stress upon:—

It is the business of a teacher to communicate a certain amount of knowledge and do it in such a way as to exercise an educative influence on his pupils. General syllabuses are laid down by others; but the actual presentation of the matter is in the hands of the teacher and he finds much scope for the selection of materials and omission of many details in what is contained in text-books ordinarily used in schools. Examinations encourage many teachers to pay more attention to the amount of knowledge imparted than to the method adopted in imparting the knowledge. Inexperienced teachers often teach too much, leaving very little scope for self-help on the part of their pupils. Extra classes should not be held during holidays; if the teacher holds classes on holidays, he finds less time to value pupils' note-books, to prepare in advance for his lessons and in the case of Science, to keep the laboratory neat and up-to-date.

Books recommended for reference should not be used as regular text-books. Books are often written on logical lines and not on psychological lines; but the teacher has to adopt only the latter in many cases.

The following instructions may be given to the teacher as regards omission in Science teaching:—

- (1) Omit elaborate appliances and unnecessary illustrations and analogies, (2) omit reference to exceptions when introducing general laws, (3) omit too high a standard of accuracy and methods of very refined measurements, (4) omit haste and consequent waste, and (5) omit teaching too much.

Then there was a discussion on the points raised in the paper, in which several gentlemen took part. The Chairman spoke at some length on the subject, in the course of which he said that it was difficult for another to say what a teacher had to omit, that the enthusiasm of a young teacher ought not to be curbed, that examinations exerted a certain influence on what had to be taught, that extra-classes were necessary, if there were too many holidays on regular working-days,

that experienced teachers would do very well to teach the lowest classes and that there was not much gained by merely aiming at accuracy of result.

At a meeting of the Mathematics and Science Section of the Madras Teachers' Guild held on the 11th of December 1916 with Mr. K. Andaresu Naidu, B.A., L.T., B.L., of the Pachaiyappa's College, in the chair, Mr. V. Subbaya, B.A., L.T., opened a discussion on the desirability of revising the Physics and Chemistry Syllabus in the O. Group of the S. S. L. C. Scheme. There was a long discussion on the subject and at its end a Committee was appointed to consider the revision of the syllabuses in these subjects; at a subsequent meeting of the Section, the Committee was requested to draw up also a syllabus in Physics and Chemistry combined into one subject in the O. Group.

At a meeting of the Section held on 13th December with Mr. V. Venkatesubhaiya, B.A., L.T., in the chair, Mr. A. Tiruvengadaiyengar, B.A., L.T., opened a discussion on the desirability of revising the S. S. L. C. Scheme, the Elementary Mathematics Syllabus in Group A and the Geometry and Algebra Syllabus in Group C. As a result of the discussion a Committee was appointed to consider the revision of the abovementioned subjects.

Sri Rajah's High School, Tuni.—The fifth anniversary of the Debating Society attached to the Sri Rajah's High School, Tuni, was celebrated with great 'eclat' on the evening of 30th ultimo, with Mr. V. Narasimharayudu Pantulu Gann, B.A.,

L.T., the Assistant Inspector of Schools, Godavari District, in the chair. The annual reports of the Association and its branch, the Hindu Mata Bala Samaj, were read by the Secretary, both in English and in Telugu and they showed a steady and uniform progress in all directions. Some humorous recitations and the enacting of certain selected scenes from Shakespeare's 'The Two Gentlemen of Verona,' were the chief items of the programme. The President, in his eloquent and spirited speech, exhorted the young men to cultivate their powers of expression by boldly attempting to speak in their Society meetings, to be careful in the choice of books they intend to read, to guard themselves against forming hasty judgments, to try to translate what they have learnt in English into chaste and simple Telugu, so that it may be useful to the masses and women and above all to conduct themselves in such a way that they may become the distinguished citizens of the Empire.

The Annual Grigg Memorial Athletic Sports were held in this town on the 1st and 2nd instants. All the High Schools in the District sent their pupils to compete for the medal presented by the Government. The Committee appointed to conduct the competitions provided 19 silver medals from the funds raised by public subscriptions, of which one was given away to the all-round second boy in athletics, in the name of the Sri Rani Sahiba of Tuni, who was gracious enough to bear the charges of boarding the representatives from the different places. The other medals were distributed among the winners in the several events. The two all-round medals were carried away by the pupils of the R. Ch. High School, Pithapuram and of the rest, five, the largest number, went to S. R. H. School, Tuni.

The Educational Review.

The ways of the Syndicate of the Madras University have often puzzled the public, but the most astounding procedure of theirs is in connection with the Government's reference to them about the Patna University Bill which is now on the anvil of the Imperial Legislative Council. The Bill, as our readers are aware, is one involving several important changes from the present constitution of Indian Universities, and is fraught with the gravest consequences for the future of higher education in India. It has roused the keenest controversy in several parts of the country, and the people of Bihar and Orissa to whose interests the proposed legislation is supposed to administer are having a very anxious time over the possibility of the Bill being passed with all its obnoxious features. The Bill has called forth opinions from those interested in any measure in higher education in India, even in provinces which will least come into contact with the Patna University and it was only the other day that we found the opinions of Sir Narayan Chandavarkar and the Hon'ble Mr. R. P. Paranjpye in the Bombay Presidency, and the old veteran, Sir Gurudoss Banerjee in Bengal. The Government did the Syndicate of the Madras University the honour of consulting them on the measure and here are the grey-haired dons confessing without any scruple that they have no opinion on the subject.

We do not wish to speak of the Syndicate of the Madras University with any disrespect, and we have often regretted the unceremonious way in which they have been handled by some of the Senators and the public, but we cannot help saying that a body of people who are prepared to declare that they have no opinion to express on such a measure as the Patna University Bill, have no credentials to control the University education of a presidency with forty millions of souls. They are at least not creating any confidence in their ability and wisdom to guide the educational affairs of one of the most important Indian Universities by such action. The Syndicate may be exempted from having any opinion on subjects like the octroi duty, the value of bone manure, or the canals of Mars, but cannot plead inability to say what it feels on the proposed constitution of a new University that is coming into existence.

The people of Bihar themselves have no doubt of what they feel in the matter and at an extraordinary session of the Bihar Provincial Conference they have stated their demands in unmistakable language. They desire to limit the powers of the Chancellor to those exercised by the Chancellors of other Universities in India; the Vice-Chancellor should be elected by the Senate; the Syndicate must have no nominated member on it, nor should it be anything more than the mere executive body of the

Senate, that the Senate should consist of not less than eighty members, of whom not less than two-thirds should be elected by graduates and the Faculties; there should be no restriction to the opening of new colleges wherever there may be demand for them and there should be Faculties in addition to Arts and Science, for Law, Medicine, Engineering, Technology, Agriculture and Commerce. As the President of the Conference, Rai Purnendu Narayan Sinha (one who has not taken an active part in politics but whom the grave questions at issue have drawn out), pointed out, the present is an admirable opportunity for expanding higher educational activity in the Presidency, and if they are to have a University they may as well have it in a fairly comprehensive way, rather than bring a handful of Arts Colleges together and dub them with the name of a University. With the great Tata and Iron Steel Works at Sakchi, the Railway Workshops at Jamalpur, and the Agricultural Research Institute at Pusa—all within their province—there is ample material for the formation of Technological, Engineering and Agricultural Faculties and with the Bankipore Girls' School which is already teaching up to the Intermediate standard, a Women's College ought surely to be within the regions of practical politics—but none of these admirable features are to find a place in the new University, and we are to have an effete and pale phantom of a University installed for worship on the banks of the Ganges, within a radius of one mile from the

Secretariat buildings in Bankipore. They would rather not have a University at all, say the people of Bihar and in echoing it, we say, 'Well done Bihar!'

We congratulate Mr. A. I. Mayhew on his permanent appointment to the Directorship of Public Instruction of the Central Provinces on the retirement of Mr. Wright. Combining long and varied educational experience with a liberal outlook on men and things, and possessing not only pedagogic knowledge but general culture of a high order, Mr. Mayhew must make an admirable Director of Public Instruction for an Indian province. During his association with the Educational Department of the Madras University, he was well-known for his complete grasp of educational matters and his sympathetic and liberal treatment of the educational institutions, with which he had occasion to deal. He acquired valuable experience again as an Educational Adviser to the Nizam's Government, though his excellent schemes of educational reform have not yet been carried into effect by that State, for reasons for which the authorities of the State alone are responsible. During the short period he was in charge of the Directorship of the Central Provinces, he signalled himself by his services in connection with the Nagpur University scheme, which was due mainly to his energy and enthusiasm, and the liberal and far-seeing provisions of which are a striking testimony to his tact and judgment. The special excellence of Mr.

Mayhew as an educationist, consists in his freedom from *fads* of which we are afraid, only too many are dumped upon us by callow young men fresh from the Universities of Oxford and Cambridge. We have no doubt that education in the United Provinces has a bright future before it, under the auspices of the new Director of Public Instruction.

A society for the advancement of the Indian education of Indian Women's Education Society. organised in Benares by Miss Francesca Arundale and Mrs. Sanjiva Row, with a view to focus public opinion on the urgent need for the spread of education among India's daughters. The organisers have before them the very noble aim of "promoting by all means in their power, the education of Indian women on *national lines*" and we commend the organisation to the support of the public. Woman, in all ages, has been the preserver of the conservative element in a nation and it would be a pity if anything were done to denationalise her, in the course of her education. She at least, cannot afford to cut herself away from the old moorings of national life and we are glad to see that this caution has been placed in the forefront of the Society's policy. The Society will insist on the need for women's education on Indian lines (a) by public lectures, (b) by the circulation of suitable literature, (c) by the maintenance of a monthly magazine, (d) by making grants to girls' schools and col-

leges as funds permit, (e) by preparing suitable curricula of studies in harmony with the Indian spirit and need, (f) by affiliating girls' schools and colleges to the Central Society for mutual protection and support. We are ourselves believers in the advantages of the co-education of the sexes; it should be most pleasant to see "sweet girl-graduates in their golden hair,"—we will say "soft glossy hair," to suit Indian conditions—in the precincts of our Universities, but we are ready to recognise that the ideal is not practicable in the present social conditions of our country, and will therefore extend our cordial welcome to any scheme that will tend to dispel the clouds of ignorance which have settled down heavily on our sisters. Such organisations may go some way in strengthening the hands of those engaged in such endeavour and we hope that our countrymen will not fail to rush to their help. Let us remember with the poet that woman's cause is man's and they rise or fall together.

We congratulate Dr. Ewing, the well-known Principal of the Punjab Christian College, Lahore, and the Vice-Chancellor of the Punjab University, on the distinction, the Honorary Degree of D. LITT., that has just been resolved to be conferred on him by the University. By his high character, intellectual attainments and culture he is eminently worthy of the degree to which it is proposed to admit him, and his special

success as a Vice-Chancellor is striking testimony to the great usefulness in appointing veteran educationists to the office. With intimate knowledge of University matters, and real love for efficient education, the Professor or Principal of a college, or any member of the educational profession, of high attainments and experience, must always make an ideal Vice-Chancellor, and we confess we have never been able to understand the *rationale* underlying the choice of favoured Judges and successful lawyers to the office, by most of the Provincial Governments in India. With the solitary exception of Sir Asutosh Mukherjee who is however full of the academic spirit and is a lawyer and Judge only by accident, there has not been one layman, Indian or European, who has distinguished himself as the Vice-Chancellor of an Indian University in the past and we presume it is by no means a sweeping condemnation. The Judge or the lawyer with the large practice, is generally content to be an ornamental figure-head and is not able to do anything beyond keeping up the routine of his office, signing official documents at stated intervals and doing the mechanical work of a Chairman—and that sometimes very badly—on occasions when the Senate or the Syndicate may meet. The success of Dr. Ewing as a Vice-Chancellor and this recognition of his brilliant services by the University are therefore particularly gratifying to us.

In a comprehensive address which Teachers and H. E. Lord Carmichael delivered the other day at a Durbar in Calcutta, there were a few unfortunate reflections on the alleged part which teachers played in the propagation of sedition and anarchical principles in Bengal. We can claim no special acquaintance with conditions in Bengal, but we should have no hesitation in repudiating the charge with all the emphasis at our command, as we know the Indian teacher to be incapable of taking part in such nefarious work. He has inherited sacred traditions, with regard to the noble responsibilities of his profession, from his great ancestors, and he should be the last person to prostitute his learning and position to such ignoble ends. By his culture and intellectual eminence, he is easily among the first to perceive the benefits of British rule in India, and he has probably never had any hesitation in thinking that in the continuance of that association lies the strength and progress of the Indian people. His influence has always been on the side of loyalty and ordered government and if only his hands are strengthened by an improvement of his status in life and a better recognition of his importance in society, there should be a great accession to the cause of peaceful government in the country. The interests of his profession must lie nearest the heart of Government, at least because of the wide influence for good or evil, which he has opportunities of

exercising on the rising generation of the country.

A fact of great importance for the educational progress of the country is being elicited in the course of the evidence now examined by the Industries Commission.

Education and Industrial progress.

There has been an unmistakable demand on the part of the majority of the witnesses, for the progress of elementary education in the country, for without that the efficiency of labour could not increase, and it would be idle to think of embarking on any advanced industrial ventures. Two of the highest educational officers of Government, Mr. Hornell, the Director of Public Instruction in Bengal and Mr. De la Fosse, the Director of Public Instruction in the United Provinces, have even gone to the length of declaring themselves emphatically in favour of compulsory elementary education. Another point on which the evidence of witnesses seems to be fairly unanimous, is the need for bringing the educational systems of the country, in all their grades into some touch with the great industries of the land, so that in our schools and Universities there might be some impetus given to such studies as have a bearing on the material advancement of the country. It is hopeful to observe that the result of the deliberations of the Industries Commission may result in some valuable educational reforms also.

We invite the attention of our readers to a valuable and thought-provoking address on the *True Aim of Education*, by S. H. Freemantle, Esq., I.C.S., C.I.E., which we reproduce elsewhere in this number. This is not the first occasion when Mr. Freemantle has spoken upon educational subjects and we have always admired his strong commonsense and his desire to get to the root of things. It does good occasionally to examine from a fresh standpoint, the very foundations of our educational system with a view to test their soundness and see if they are calculated to achieve the results which we expect of all true education.

Does our education give us in Marshall's words—"a certain independence and habit of choosing one's own course for oneself, a self-reliance, a deliberation and yet a promptness of choice and judgment and a habit of forecasting the future and of shaping one's course with reference to distant aims"? It will be very difficult to avoid some soul-searchings caused by such questions and it is desirable that the self-complacency about his work into which an educationist is apt to fall must occasionally be disturbed by laymen like Mr. Freemantle who have got the courage to think independently of educational subjects. Mr. Freemantle also makes a number of practical suggestions for making elementary education more interesting and for bringing it into more intimate touch with the conditions of rural life in India.

Compulsory Elementary education. was the subject of a recent debate in the Bombay Legislative Council and the weak and

inane arguments with which the Government tried to shelve a question, so vital to the welfare of the country at large, were ludicrous in the extreme. The Hon'ble Mr. V. J. Patel moved "that this Council recommends that an early beginning should be made in the direction of making elementary education free and compulsory throughout this Presidency by introducing it in the first instance within the limits of its municipal districts and that a mixed committee of officials and non-officials be appointed to frame and submit a definite proposal on that behalf." Even this measure of educational progress was too much for the Bombay Government, despite the example of Baroda so near Bombay, and the serried ranks of Government were up in arms against it, and as has happened to many a good resolution in several other Councils, it was voted against by the august Legislative assembly in the plenitude of its wisdom. Finding it impossible, at the threshold of the twentieth century, to say anything against the principle of free and compulsory education, and confronted with the fact that even backward Russia had begun to have free and compulsory elementary education, the Government fell back for support on the weak plea that it violated the principles of educational policy laid down by the Imperial

Government, and it was not within the jurisdiction of any Provincial Government even to consider such a recommendation! It was reserved for the Indian Member of the Executive Council of the Presidency, the Hon'ble Mr. Chaubal, to expound this precious doctrine. He wanted "to state frankly that he was going to resist the resolution, because there was no other course open to him. The relations between the Government of India and themselves were such that he doubted whether the Council could pass such a resolution." And then he also held out a threat—"they had to depend on Imperial grants, which may be refused should they deviate from the policy laid down by the Government of India." We are thankful he did not conjure up worse horrors of divine power.

In His right hand

Grasping ten thousand thunders, which He sent Before Him, such as in their souls infixed Plagues.

It was seriously put forward the other day in Madras by an educational tradition in Indian homes. which the Indian student was subject there was the absence of educational traditions in the Indian home. Unless the lecturer was thinking of the mere formal aspects of education, like going to school or college at a particular hour and passing certain examinations in the course of one's educational career, he is thoroughly mistaken. There is probably no country in the world where learning is invested with greater

sanctity and education is looked up to with greater reverence than in India. In the homes of the higher classes, especially, there is an unbroken tradition of learning kept up for centuries and want of education is looked down upon with instinctive contempt. The man with any pretensions to learning, sacred or secular, can even now find the hand of generosity extended to him unreservedly in all Indian homes, and the disabilities of the present transition from the old systems of education to the new have been surmounted in the most remarkable manner. If want of success is patent in some quarters, it is due probably to want of opportunities, or adverse economic conditions, or individual eccentricities, but never to want of educational traditions in the home.

We had occasion to welcome last month the introduction of the Boy Scout Movement into Madras, under the auspices of H. E. the Governor of Madras, and we have since read with pleasure about the great progress it has made in Ceylon, demonstrating effectively how it is as well suited to the Indian boy, as the English, for there is really very little difference between the native inhabitants and those of India. In Ceylon, where the movement embraces children of all religions and nationalities, Hindus, Buddhists, Muhammadans and Christians, it has done a good deal to inculcate "the essence of true religion, true patriotism, true morality, social as

well as personal." The movement has always encouraged the religious spirit and the boys, free to go to their own temples and churches, have become better Hindus, better Buddhists, better Muhammadans and better Christians. The basis of the Boy Scout Movement being a feeling of brotherhood in the British Empire, it has also given a valuable impetus to patriotism. Its discipline has been entirely in the direction of realising the great aim which Sir Robert Baden-Powell, the founder of the movement, set before himself, that "of moulding childhood, into clean, happy boyhood and of tempering and sharpening this delightful boyhood into splendid, useful, upright manhood." With the training in Ambulance and knowledge of First Aid, which the Boy Scouts acquire, in Ceylon they have been able to render great help to villagers and spread among them some acquaintance with the principles of sanitation. The advantages of the movement are summed up admirably in the sentence that "it awakens a boy's soul, stirs his imagination, vitalizes his mind—makes a man of him without taking from him the spontaneity and buoyance of his younger days" and we hope the good influences will soon make themselves felt in the rising generation of Southern India.

It is with a profound sorrow that we have to record the death of the distinguished Indian scholar and educationist, Rao Bahadur

Professor M. Rangacharya, M. A., at his residence in Triplicane, Madras, on Friday, the 15th instant. Endowed with intellectual abilities of a very high order he made his mark in every office he held during his lifetime, and his singular versatility and encyclopædic learning were the admiration of all who came into contact with him. In Sanskrit and Oriental scholarship he was easily the first in his days in Southern India, but his abilities were by no means confined to that department, for he was a very successful Professor of Science for a long time, while there was also not one other department of intellectual activity in which his knowledge and judgment were not looked up to with great respect. Though a servant of Government, he was distinguished for his fearless independence and he was always the bulwark of his brother officers in the department. By his publications he has made substantial contributions to the literature available on Hindu religion and philosophy and it will be long indeed before the void caused by his lamented death could be filled up. In him the country has lost a distinguished educationist and a scholar of no mean repute.

A college maintained by Government, with its extravagant expenditure in the name of efficiency and the reluctance of its authorities to add to their responsibilities by admitting as many students as possible, is often in the nature of a White Elephant, without an adequate return for the enormous outlay. An extreme example of the

type is furnished by the Queen's College, Benares, which formed the subject of a series of resolutions by the Hon. Mr. C. Y. Chintamani at the last meeting of the Legislative Council of the United Provinces. With a very costly staff, including four members of the Indian Educational Service, and a noble edifice built at a cost of £13,000, the Principal would be content to have only 120 students in all the six classes of the College. It is not because there are no applicants—the United Provinces have attained quite a notoriety for insufficiency of accommodation in the colleges—but because it is not possible to admit more with any regard to 'efficiency.' There has therefore been the astonishing phenomenon, that while there has been a steady increase of expenditure, on the College there has been a steady decrease in strength, and all the time qualified young men have been mercilessly turned away from its portals, to wander all over the Presidency for admission, or otherwise shift for themselves as best as they could. The figures which the Hon. Mr. C. Y. Chintamani marshalled with his characteristic thoroughness for the benefit of the Council, threw lurid light over the whole transaction, though it failed to shake Government's confidence in the wisdom and discretion of the Principal under whose control they had placed the College. Between 1913-14 and 1915-16, the average annual cost of maintaining the College had been Rs. 72,642 per year, while in 1895-96, it was only Rs. 47,934, an increase of about Rs. 26,000 per annum. In the same space of time the number of students fell from 178 in 1895 to 120, the average of

(a) in the shaping of the educational policy of the Government of India,

(b) in the actual working of the educational institutions of India.

(4) To bring about such conditions of service in the educational institutions of India, as would ensure the recruitment of the staff thereof from among the first rate men of India,

(a). To get minimised as far as practicable, and consistently with their internal discipline, certain invidious distinctions of an official hierarchy in the educational institutions of India,

(b) To secure the dignity of the teaching profession from being compromised for purposes inconsistent with the best interests of education in India;

(5) To agitate for the multiplication in India of Technological and Research Institutes in various arts and branches of knowledge wherein full-time workers may, under the support of those institutes, be enabled freely to pursue their studies;

(6) To give a healthy turn to the work of the Indian Universities, so that they may gradually cease to be the merely examining bodies that they now are, and may become living centres of true culture, healthy discipline, and noble ideals.

(a) To popularise among the masses of India the movement for Free Compulsory Elementary Education, and thus convince the Government of India of the real need for an early legislation thereon.

(b) To agitate for the establishment in India of a number of free elementary schools both by the State and by indigenous enterprise, so that, by an ever-growing literacy among them, our masses may play a more intelligent part in the larger public life around.

The proposed organisation would also be the most competent body to work out a useful scheme for the improvement of the Indian Vernaculars, and for settling the question of a common language for India. All are agreed as to the necessity of gradually evolving a common language for India from out of the Indian Vernaculars. They are also agreed as to the necessity of imparting instruction in Indian schools by the media of the Indian Vernaculars at least during the early years of student-

ship. But the two real questions are, firstly which of the Indian Vernaculars is to be the common language of India, and secondly how to make the Indian Vernaculars the media of instruction in secondary schools or in colleges. Though we may, for the present, postpone the consideration of the first question, the second demands an immediate solution, so that thereby a greater economy of brain-power and time may be secured in the process of school and college instruction. The solution is not, however, so very easy as it may appear at first sight. It is true that no foreign language can be a natural medium of instruction during the early years of studentship, and that it will have, for some time at least, to be learnt as an end by itself apart from the purpose of the learner. But I am afraid that, in some Indian Vernaculars, the spoken forms are so far apart from what the Pandit class considers their corresponding correct written equivalents, that the advantage of mother-tongue as the most natural medium of instruction is very much at a discount, with the result that these languages, as much as any foreign language, have to be learnt as ends by themselves. Our Vernacular Pandits have in many cases forgotten, that language is after all only a means which facilitates the work of memory in the human mind, and makes possible mutual exchange of ideas in social intercourse. The reversed statement that thought is the slave of language, seems to me as true of some of the Indian Vernaculars, as of any foreign language in the case of the Indian students.

Most of the Indian Vernaculars as written have not been, for a long time, keeping pace with the progress of those same languages as spoken. So long as they are not reformed with a view to minimise the present unduly wide difference between their spoken and written forms, so long shall the plea of mother-tongue as a natural medium of instruction, continue inapplicable to those parts of India where those languages prevail. One becomes naturalised to a language by speaking in it, rather than either by reading, or writing works in that language. Spoken tongue is what we mean by living language. Language as spoken grows imperceptibly from generation to generation, the tendency of the growth being towards sound

simplification and the consequent economy of expression in language. And when this growth becomes perceptible in the ever-widening difference between the spoken and the written forms of a language, the spoken forms must, in some of their prominent varieties, provincial or otherwise, be subjected to the scientific processes of comparison, abstraction, and synthesis, and a relatively permanent norm of the subsequent written forms of that language derived therefrom. This is no doubt the work of a master mind well-versed in the traditions, and the genius of the language, which he proposes to reform. But we cannot afford to postpone the task, since our intelligence has been very much handicapped by our having to receive instruction in the Indian schools and colleges in English language with the necessary consequence of a good deal of initial waste of our brain power, and time. Hence it is that the proposed Educational Congress will have to give a definite shape to the modern vernacular movement in India.

The objects mentioned above are certainly not the objects of the proposed organisation, as the organisation has yet to come into existence only if the educationists of India see the need for it. I give them here as I conceive them only to satisfy a formal requirement. Therefore any possible disagreement with any or all of those objects, need not alienate the sympathies of those who see the necessity for organised educational work in India. The need has been for a long time pronounced to be urgent by many of our eminent educationists. I press the question now as the present moment seems to be particularly opportune, in view of the fact that we have now for the first time a very sympathetic Indian as the Member for Education in the Viceroy's Executive Council. I can conceive of few patriots of India like the Hon'ble Sir C. Sankara Nair, who can rightly claim to be the repositories of the sacred trust both of the people and the Government of India at once. The people of India recognised the patriot in him, when they elected him as the President of a former session of the Indian National Congress, at a time when no previous high official position of his could have prompted his election. The Government of India recognised the statesman in him, when it

raised him to the exalted and responsible position which he rightly holds at present. But the possibilities of his work for the educational advancement of our country, are largely dependant on the organised nature of our public opinion in regard to our educational questions. Further, though in theory it may not be so, in practice we find that, in the outer meetings of the Legislative Councils of India, Indian Members of Executive Councils generally represent the Government points of view, which are not always identical with those of the people. The Indian point of view, before it can prevail in the outer meetings of the Legislative Councils, must first prevail in the inner meetings of the concerned Executive Councils by means of the private persuasions, which the Indian Members can bring to bear on their Anglo-Indian colleagues. This is possible only if there is an organised and responsible public opinion to back them up in their private persuasions. Hence the opportune nature of the present moment for the organisation of an Indian Educational Congress.

Our Muhammadan brethren need not misunderstand us, as we have not misunderstood their having formed a separate All-India Muslim League. Our educationists must take active part in the sessions of the All-India Muhammadan Educational Conference, as our Muslim brethren must honour the future sessions of the proposed Congress by their presence, and help its work by their active co-operation. In his Presidential address read at the last session of the Muhammadan Educational Conference held in Poona, Justice Abdur Rahim pressed on the attention of the Government of India, the educational needs not only of the Muhammadan community in particular, but also of all the communities of India as one united body. That is a practical step in the solution of the Hindu-Muslim question in India, if the question has not already been shelved into the regions of the past.

It was objected by an Indian educationist, to whom I had written about the central idea for which I am pleading in this pamphlet, that organisations should not be multiplied. But the objection is inapplicable to the proposed Congress, as, apart from the Muhammadan Educational Conference, we have not yet got another All-India Educational

vision will become broader and his thinking will assume a healthier tone. The usual timidity of the Indian student will give place to well-directed boldness. He will learn to have better confidence in himself and not be bewildered by things which are usual. This is no exaggeration. The difference in the results in the Western countries and those in India can be partly accounted for by this difference of personal influence. There is not to be found here that zeal and burning enthusiasm on the part of the student for his professors, college or the University as one finds it in the West. The student hardly cares to see his professors after he has left them; nor are the professors anxious to see him.

I am told that in America there is a University-day when students, past and present, and all the professors meet and mix together with the distinctive flags of their respective Universities in their hands and make a merry day. Some past students even sixty years old also attend and take an active part in enjoying the day and dance about! This is how a student is bound to his college, professors and University—result of hearty intimate relations between the teachers and the taught. Very little of this is noticed here, and no wonder. A professor here does not know his students even by name. He cannot even recognise them if he sees them outside the class-room. The professors and students do not see each other except in the class-room. The student has consequently learnt to look upon his professor as a somewhat frightful object which cannot be easily approached. This state of things urgently requires to be mended. Let there be a "feast of reason and the flow of soul" between the professors and the students. A better conception of life and the world will surely tend to more satisfactory results of education—more intellectual giants will be produced and more leaders of men furnished.

CHANDULAL M. DOCTOR.

THE REVIVAL OF VERNACULAR LANGUAGES.

BEFORE I begin to discuss why it is necessary to introduce vernacular instruction in schools and colleges, I will attempt to picture the present state of the vernaculars in our country. That our vernaculars have come to occupy a secondary place is noticed by all, and people are very forward in bringing proposals to revive it to their old position.

What then is their exact position? In every respect the position of our vernaculars bears full comparison with that of English in the 12th and 13th centuries. The Norman conquest of England though it did not materially affect the constitutional and social sides of the country, resulted in the almost supersession of Norman-French over the English language. The court language, the languages of the aristocracy and the clergy became Norman-French. For some time Norman-French did so much predominate that it almost threatened with extinction Anglo-Saxon. Our vernaculars are in the very same position to-day. The court language has been practically established to be English since the time of Macaulay. English is becoming the fashionable language of our aristocracy; it has come to be our commercial language; it has taken a large place in our correspondence. It is even dangerously becoming the language of our girls. In the Presidency towns one can almost say that English is the universal language. The only field which the all-predominating English has not affected to a great extent is perhaps the religious one. Vernaculars then have come to be the language of our agriculturists, artisans and labourers and of the remote parts that are not closely connected with our towns by railways.

There are three forces that are at work in the rapid spreading of English in our country, in addition to the influences to which we are subject as students in schools and colleges. The wealth and position of our higher classes enable them to

associate with our English brethren on terms of equality and cordiality. This free association tempts them to adopt English as their language as easily as they borrow their civilization. The lower classes because of their poverty sell themselves as servants or slaves to the English rulers and residents and this contact is responsible for the adopting of English by them. These two forces work in opposite directions and easily convert the whole land into an English-speaking nation. The third source is that our students who study in the western Universities finish their education there and when they return home they look with contempt on the indigenous civilization and languages and hence attempt to anglicise the members of their own families. These are some of the very important forces that are responsible for the present state of our vernaculars.

Our University was not slow in the recognition of the indifference and apathy of the so-called cultured public towards the vernaculars and at one stroke it has practically removed all the vernaculars with the classical languages out of the curriculum of the higher examinations. This action of the university marks the point of culmination in the subordination of our vernaculars to English. Reaction has at once set in. The attention of the public is drawn to it and people, assembled in different places, complained of the action of the University and began to see the real insignificance of the vernaculars and the predominance of English in every field.

This discontent of the people was heard by a few of our sympathetic leaders and one of them the Hon'ble Ramarayaningar has moved a resolution in the Imperial Legislative Council in the Delhi Session of 1913 to adopt vernaculars as the media of instruction in schools and colleges. Though his bill met with a very strong opposition, it has served a very useful purpose. The failure of the bill and the opposition it met with in the hands of so many members including Bal Gangadhar Tilak, broadened and

deepened the attention of the whole public and after this resolution, the press and the platform agitate very strongly for the revival of vernaculars, and the University is very active in the suggestions of the solutions of this problem. While our University backed by the English-inclined public went to the extreme of removing all the vernaculars out of the course, the public go to the other extreme of suggesting the desirability of imparting instruction on all the information-giving subjects in the vernaculars only. Thus the one extreme is here answered by the other extreme.

I will now consider for a while whether this movement would realise its object. Will it be possible for the vernaculars to take the place of English and can the English language be subordinated to the vernaculars?

A study of the history of the languages of the different nations of the world cannot fail to impress on us the general principle, namely, that the conquering nation imposes on the conquered in addition to its own civilization, its very language. But the statement is to be qualified by saying that the degree of the imposition of the conquering language depends upon the completeness and the effectiveness of the conquest. Examples are not at all wanting to prove the statement. But I illustrate what I mean from a country that is of immediate concern to us.

The Teutonic conquest of England in the 5th and 6th centuries ousted the Celtic language that was prevalent before this event in England and substituted wholesale the Anglo-Saxon language. Here the conquest was complete and hence it was possible for the invaders to impose their language so effectively that the Celtic language was completely obliterated. After a period of five centuries came the Norman conquest which in its turn, attempted to establish Norman as the language of its people but owing to the fact that the conquest was not very complete and the conquerors formed comparatively a small number,

1914—1916. In other words the cost of maintenance rose by 53·64 per cent., while the number of students fell by 32·58 per cent. According to Government's own admission, the net cost to Government on the education of each student per year in the College, deducting the income from fees which are very high indeed and the receipts from endowments and other sources of income, was as much as Rs. 516. It is of course quite comfortable for a Principal to have as few students as possible in the College, which means less trouble by way of management and less work for Professors with fewer exercises to correct and lighter strain on the lungs. But that is surely not the way of spending the poor Indian tax-payer's money to the best advantage possible. It was but a modest and reasonable resolution that the Hon. Mr. C. Y. Chintamani moved: "That this Council recommends to His Honour the Lieutenant-Governor that instructions be issued to the Principal of the Queen's College, Benares, that he should as far as possible, admit students to the full limit of accommodation." The motion was negatived and the Honourable member moved as an alternative measure that the institution be made over to the Benares Hindu University. But the Government was obdurate and the Hon. Mr. C. Y. Chintamani in his despair had the satisfaction of at least moving that the Queen's College, Benares, be abolished, thus saving Rs. 80,000 a year from the taxes paid by the poor Indian tiller of the plough.

The Imperial Government have just issued a volume of statistics relating to Indian Education in 1914-1915, compiled by Mr. Findlay

Shirras, Director of Statistics, and the volume is worth careful perusal by all lovers of Indian education. While a number of interesting questions suggest themselves to one who attempts any critical study of its pages, attention may be drawn here to one aspect, the mere magnitude of the educational machinery that has spread over the land, which would by itself be a striking monument to the glory of Lord William Bentinck and other statesmen in India who advocated English education for the people. We offer no apology for extracting the following figures relating to the number of pupils and students studying in schools and colleges:

Public Primary Schools ...	5,451,202
Private Primary Schools.	581,576

Public Secondary Schools:

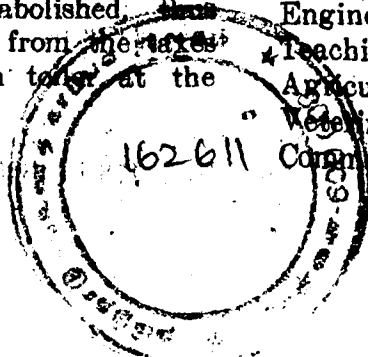
Middle Vernacular ...	259,973
Middle English ...	337,408
High Schools ...	505,483
Private Advanced Schools.	55,291
Schools for special instruction.	220,410

Arts Colleges:

English ...	40,176
Oriental ...	1,780

Professional Colleges:

Law ...	4,476
Medicine ...	1,755
Engineering ...	1,268
Teaching ...	693
Agriculture ...	224
Veterinary ...	173
Commercial ...	143



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