

3L

.T. 2m N07

N07

190583

THE INDIAN

PRINTED,
THE KAPALEE PRESS,
MADRAS.

Journal of Education.

Vol. XLVII.
Old Series.

JANUARY 1907.

Vol. XV.
New Series.

Some Problems in Prussian and English Secondary Education.

An attempt will be made in this article to draw some comparisons between various aspects of Prussian and English Secondary Education and to deal with some of the problems which are encountered to day. A comparison in all respects is impossible. For in dealing with the educational systems of two countries, national characteristics inevitably influence the aims and methods of the national education; and it will be natural to find that problems are present in one country, which either are absent in another or are considered under a different aspect and from a different point of view. Further, the discussion of the present question is extremely difficult from an outside point of view: for a thorough understanding of the problems involved, it would seem that actual experience of the working of the two systems would be necessary. Moreover an historical difference may be indicated between the systems of the two countries, originating in the Prussian crisis of 1808—1815, when an extremely close connection between education and the state was formed to serve as a basis by means of which regenerated Prussia was to avenge Jena at Waterloo. England had no such educational crisis: her middle classes were entirely wrapt up in trade. The existence of religious differences was unfavourable to the establishment of satisfactory secondary education in small towns. The state had no control over the Universities. There was no compulsory military service. Finally, while the old-fashioned boarding schools in Prussia were well attended, in England it was the boarding-schools that initiated reform. In Prussia the old schools of Latinity were considered as one-sided, as the facultative psychology that was giving way to a truer conception of organic growth, and there arose an enthusiasm for the Hellenic world run-mad.

All these differences make parallelism very slight in some respects and this involves in turn a difference in the problems that have to be considered. But an attempt will be made to deal with such as naturally suggest themselves.

Out of the crisis in Prussia there had arisen the idea that education has a very definite aim, and this aim was intellectual, rather than, as in England, ethical. This definiteness of aim is seen in the internal organisation of the schools—for example, in the different principles of promotion from class to class. In England a boy may be in a higher or lower mathematical set than his 'form' order indicates, whilst the Prussian system is collectivist and the average powers are developed rather than the versatility of individuals. Again in Prussia the aim is definitely formulated as intellectual, means of attaining it are carefully calculated; and the problems of method are eagerly canvassed. In England greater stress is laid on the ethical aspect of education and this implies diversity of organisation to suit the different beliefs of masters and parents. From this difference in the conception of the aim of education, several important results follow. Where a highly organised system goes along with an avowedly intellectual aim in education, the normal attainment will be higher than in a less organised system, which, however, leaves a freshness of mind that may lead to a greater development later. In comparing the English normal attainment in Secondary education with the Prussian, it must be admitted that the English is lower. But the critics, who delight in drawing contrasts between German and English productions unfavourable to the latter, forget that the English school is not so important for the whole of education, that more channels produce the total result on after life, and that the German gets from school what the Englishmen often gets elsewhere. One other result of this difference in the conception of the educational aim may be noticed. The English system attempts in a greater degree to mould the character of the boys: and if it is true that the public school pattern is too uniform, it is equally true that in the main the belief in an ethical aim has had in English education a valuable practical influence—an influence which can be readily brought to bear in the English boarding schools, where the masters are brought into much closer contact with the boys both in and out of school.

Another main problem in education which may be profitably considered in this connection is the question of state interference. How far can England,—it might be asked—with her looser organisation and freedom for individual enterprise compete with the pressure of highly drilled men with that disciplined knowledge, which is the outcome of the secondary education of some other countries? Or a Prussian might ask—and they are asking to-day—whether a clear-cut classification of schools is desirable. In Prussia the machinery of the relation of the state to education was completed seventy years ago: in England it is still very incomplete. The aim of Prussian education permeates all their society. Definite ideas are propagated: socialistic theories are discouraged. Conferences are not only possible, as in England, but unlike English conferences, are of great utility in view of the exact classification of schools and the uniformity of their curricula. In Prussia many advocate less state control, thinking with Paulsen that greater

spirituality would be obtained. In England, on the other hand, more centralization is, according to many, a crying need. Some state interference is necessary: all children must go to school, and the state does subsidize certain opinions, and cannot remain indifferent to views and beliefs which bear a direct relation to the welfare of the state. It is in connection with the limits of such interference that the controversy rages. In general it may be said that the English problem is how to obtain more freedom together with more central control, whilst in Prussia the problem is how to get more provincial control. Religious differences in England militate against the securing of more central control, and there is a prevailing distrust of the results which state interference may be expected to have on freedom of thought. These considerations underlay much of the discussion on the recent Education Bill, and it must be admitted that it is desirable to have some uniformity and that, where aid or recognition is granted by the state, popular control ought to follow.

It will be convenient now to make a few remarks on the curriculum problem. The burning question of the hour is as to the value of a classical education in view of the crowding of new subjects and so-called modern needs. Prussia is inclined to compromise and even to insist more on classics. Although the technical knowledge required for modern commerce must be dealt with as best may be, it seems dangerous policy to throw over a scientific and perfected instrument of education. For a thorough liberal education, it is unlikely that the problem can be solved by supplying anything else besides the classics that will give the same historical perspective and indicate so fully the significance of mediæval and modern culture and the relative value of modern civilization. The great difficulty arises in the case of the average boy who possesses neither intellect nor means adequate to secure a liberal education. It would be beside the point to enquire into the merits or demerits of Latin. But it is not otiose to remark that the great problem today in all secondary education is to determine what curriculum is best for the boy who leaves school about sixteen years old to enter a commercial house or to do technical work. It is easy enough to lay down negative rules: 'avoid early specialization'; or to say 'ennobling ideas, not useful technique, must be provided'. True, but the insistent demands of practical life still cry aloud. No attempt will be made here to offer a solution of the problem: it will suffice if mention be made of one or two German experiments. At Altona, an attempt has been made to combine the Realschulen with the Realgymnasien by putting off the age of beginning Latin. At Frankfort there is the same course for all boys up to the age of twelve. The importance of this is that it gives the parents more time, where, as in Germany, the choice of profession and school go together. In Frankfort, as in Altona, the age of beginning Latin is put later. Finally, the development of the Ober-realschule, which claims to give a liberal-non-classical education, is of the greatest interest.

A further question raised by a comparison of Prussian and English secondary education is that of the relative value of boarding and day schools. The Prussian school is local and non-boarding; in England it is generally the reverse. Broadly speaking, it may be said that in a day school there is more home-life, a more democratic environment, and the local pride of a small town in the possession of a good school. The day-school, again, avoids the evils of leaving the parent without the influence of the child and the child without the influence of the parent, and of the separation of the sexes. On the other hand, the English system is more congenial to national habits and there is a different ideal of mastership and the inter-relation of masters and boys. There is social interest rather than intellectual pride. Loyalty to tradition and *esprit de corps* are rated higher than mental culture and erudition. The opposition existing between these ideals is obvious and many are asking themselves if it is not possible to combine the two and strike the golden mean. The type produced of secondary education would then have higher intellectual attainments than the average Englishman and be less of a devotee to athleticism run-mad: while loyal and patriotic he would at the same time maintain and develop his individual propensities. He and his master will cease to be overworked and a happy relation will exist between them. All this, it may be objected, is unreal. At the same time realization is not impossible.

The passage of boys from elementary to secondary schools raises another problem common to both countries. Ruskin would have us be on our guard against "leaving a Giotto by the sheepfolds:" and Comenius gave expression to a similar warning long ago. The stricter organisation of Prussia and its careful curricula would render such a passage easier than in England, where the conditions of the home and of the competitive entrance examinations into the big schools form obstacles not easily removed. Again, in English elementary schools, there are great varieties in curriculum and in the age for leaving, whereas in Germany there is uniformity of organisation and fixed type of curriculum. Hence it is easier to pass from the elementary to the secondary school in Germany. And not only is it easier, it is also cheaper, and as the curricula throughout the country are uniform, a change in residence is not so disastrous educationally. But the problem involves deeper issues than this. When Comenius advocated what is now spoken of as the 'educational ladder', his motive was to get rid of class-distinctions. And indeed the problem is the social question in an acute form. French and German experience of *déclassés* is by no means encouraging. The influence of home is a factor that cannot be reduced to "normal standards" and going to the same school seems hardly likely to remove class prejudices and misunderstandings. Inequality is a necessary condition of progress, and the socialist's cry for equality of educational opportunity rests for the most part on a fallacious confusion between accomplishments rare in themselves and accomplishments only accidentally

rare. Mr. Mallock in his book 'Aristocracy and evolution' has pointed out admirably the results of this confusion of thought, the waste of energy, discontent, and economic dislocation which would follow; and how easy it would be to increase infinitely the number of ploughboys qualified to become clerks, how impossible to increase the supply of Shakespeares or Cæsars. In any case this at least must be borne in mind—the quality of secondary education must not be compromised.

It will be convenient now to say a word about the interest taken in education in either country and the supply of teachers. In Germany the parents take a very great interest in education and the incentives to work are very strong. The boy must nerve himself to get a certificate of exemption from one year's military service. If he fails to obtain this, he loses one year's wages and one year's start in life. The result is overwork on the part of the boys and a wrong kind of interest in an unpopular system on the part of the parents. It is difficult to see how this can be improved at present: but it is at any rate better than the ignorance and indifference too often shown by the British parent. As regards the supply of teachers, in Prussia they do not have such a good social position as in England. It has been said that "in Prussia no man of a decent family becomes a teacher or a parson." This has a mischievous effect on the teaching and on the training of character. It will be of interest, in conclusion, to notice the methods adopted in Germany to improve this state of affairs. While waiting for his appointment, the future teacher now often remains in the army and this gives him a better position and makes it easier for him to maintain discipline.

In discussing various aspects of secondary education in these countries, it may be thought that there is little enough that can be applied to India. But, in spite of all the differences in national life, history and character, there is a value in studying the methods and results of other lands. We may utilise their experience, avoid their mistakes, adopt what may be successfully transplanted, and learn in turn to deserve their careful attention and respect.

The Teaching of Geography.

It is proposed in this and the succeeding numbers of this journal to give some general indications as to the scope of geography and its value: and further to make some suggestions as to the best methods and schemes of work to adopt. In this paper attention will be confined to the limits of the subject, and the qualities of mind which it may be expected to cultivate. An effort will also be made to determine how far the teaching of geography may legitimately be correlated with that of other subjects. Finally some mention will be made of the schemes in use in France and Prussia. Next

month suggestions will be made as to the teaching of local geography and map drawing. In a final paper general methods and schemes of work for middle and higher forms will be discussed. The writer would like here to express his indebtedness to some lectures delivered on this subject in England, from which many valuable hints were obtained.

Of late years a great change has arisen in connection with geography. A truer conception of its value and importance has arisen, and attempts have been made to widen the range of the subject and to devote grater time to its study. This alteration of opinion towards geography has tended to produce a vagueness which discourages teachers. They would like to know precisely what geography is and what a true scheme of geographical teaching should include. Its limits must be wide, but certain exclusions are necessary. An eminent educationalist has suggested that it should include the following:—

- (1) An elementary knowledge of natural science to enable boys to understand such natural phenomena as air and water. These should be taught as physics and are essential to the understanding of currents.
- (2) A knowledge of the surface of the earth, plains, heights, &c.,
- (3) The powers to represent this surface on paper; and ability to read maps.
- (4) The effect of physical configuration on climate.
- (5) Races and occupations should be known.
- (6) Interaction of physical features.
- (7) A knowledge of the position of the earth among the planets as bearing on (4) and (5).
- (8) The position, direction of rivers, and reasons for their position.
- (9) Distribution of animals, and plants.

Now this seems a formidable table; and much of it is new. It could only be got if the curriculum was very carefully planned and the actual teaching of these divisions of the subjects done methodically and spread over several years. Geography is not now given much time in the curriculum and it is improbable that much time ever will be given to it. The pressure is too great, and there is an ever-increasing danger of encyclopaedism, and of the teaching of a great number of subjects none of which are thoroughly known. But even if only two hours a week are given to the subject much may be done.

It will be convenient now to consider what qualities of mind the teaching of geography may be expected to cultivate, if that teaching be good. First of all observation and what may be called the "locality-sense" should be improved. The objects met with round the home will have a

fuller meaning to the eye. The effects of rain, the action of springs, both intermittent and constant, the relative position of neighbouring places, heights and levels will be noticed and become full of interest. Again, a clear and real conception of foreign geographical objects can be given, in which connection mechanical aids, such as pictures and a well-stocked geographical museum, will be found useful. Further, the imagination and the emotions can be cultivated. The pupil can image what he has not seen, and make mental comparisons with what is familiar to him, whilst his emotional susceptibilities may be trained and strengthened by the history of graphical discoveries and exploring expeditions. He will learn to admire the qualities of a Columbus or Vasco da Gama, and his enthusiasm will be roused by the voyages and travels which led to imperial expansion. When he is considering the causes which led to the prosperity and growth of certain towns, or examining into the effect of physical configuration on climate the pupils' reasoning powers will be called forth. Once more, if map drawing is well taught, it is valuable in that it coordinates hand and eye when the pupil draws. Lastly, apart from these qualities of mind which geography may cultivate, it may be remarked that the advantages of teaching the subject, from a utilitarian point of view, are undeniable. Even a simple knowledge of the position of places and the comparative distribution of products may be of use.

We may now consider how far the teaching of geography may be correlated with that other subjects. In all teaching it must be borne in mind that a new piece of knowledge is not an isolated fragment. It is the same boy, moreover, who receives different lessons and of himself he will try to combine alien elements. The principle of correlation applies both to material and method, and all suggestions from correlated subjects are to be welcomed which aid the class in gaining a better hold of the subject in hand. Nor is correlation unwise. For interest in a particular subject may be abnormally developed. This tendency may be checked by a careful use of the principle. It is true that a special interest is acquired in particular subjects in the higher divisions of a school, and it may be admitted that the principle is easier to apply in the early stages when a boy's knowledge is naturally somewhat vague. And it may be further admitted that correlating subjects together may easily be overdone, inasmuch as the inter-connection of subjects is often too subtle for a boy to appreciate; and there is an ever-present danger lest the teacher should overload the minds of his class with irrelevant details. And it is just here that the followers of Herbart were at fault, as the following quotation from Ziller abundantly shows. "Humanistic instruction and scientific instruction are connected as instruction in things, and all subject must be brought into unity with humanistic instruction,

and this latter is the central point of the whole system.....For every grade of instruction and for each class a section of thought complete in itself—a section of humanistic material—must be set up as the concentration centre, round which lies all peripherally, and from which the connecting threads start, which, radiating on all sides continuously, unite and hold together the various parts of the child's circle of thought. In this way instruction ceases to be a loose aggregate of subjects which otherwise is absolutely unavoidable. "To correlate to this extent is out of the question, as our remarks above show. But some correlation is advantageous, and geography is undoubtedly a subject which lends itself to it, especially in connection with literature and History. For example, suppose the Tudor period is being studied. The history of geographical discoveries may well come into the scheme of the geography lesson: and appropriate literature is ready to hand. Tennyson's "Revenge" and Macaulay's "Armada" may be read in connection with the geography of the Armada. Similarly instances could be multiplied where Indian history and geography go hand in hand. Still it remains true that they are two subjects, not one, and it is worthy of note that in the New Rules of the University of Madras for the Matriculation Examination History and Geography have been constituted separate subjects. In fine, we may say that History, Literature and such subjects as Geology should be included in geographical teaching only as occasional illustrations.

Some remarks have now been made as to the limits of the subject and the qualities of mind it may be expected to cultivate. The extent to which correlation should be used has also been discussed. It may be of interest to append to this paper the schemes of geography teaching in use in Prussia and France, and to make a few remarks on them. In a later paper a general scheme of work will be given for the middle and higher forms of school.

1. Prussia.—

Lowest class.—Astronomy and Physical Geography, founded on local surroundings. "Relief" explained. Survey of mountain and water systems. No book used.

2nd. Class.—German political and physical geography. 'Relief' work and maps. Geography of Europe outside Germany.

3 B. Class.—Revision of European Geography and some foreign parts.

3 A. Class.—Physical Geography of Germany Revised. German Colonies.

2 B. — Revision of European Geography. Mathematical Geography.

In modern schools, means of intercourse and trade-routes. In highest forms Geography ceases to be taught

as a separate subject, and is taught as a part of science or History. In modern schools there is a more detailed survey of intercourse and trade.

France.—

1st. Lycée Preparatory class (age about 8). Cardinal points learnt by local geography. The seasons. The Horizon, Plans of Streets, and Houses as a preparation for later map drawing.

2nd. Lycée Preparatory class. Explanation of Geographical Terms. General Geography of the earth: *i.e.*, large divisions, oceans, continents. Position of France on the Globe. A few great travellers made known.

8th. Class (lowest in Lycée proper). Elementary notions of General Geography given. Tides: mountains: rivers: submarine life. Distinction between hot and cold climates; deserts: animals of large divisions. Differences between civilised and savage life.

7th. Class.—Elementary Geography of France and its colonies: a little historical geography. Local habits and customs. Canals and Railways. Map drawing.

6th. Class.—General Geography with particular reference to certain places. Relief, Rain, Climate, Winds. Religions and Customs of Man, illustrated from different countries.

A. Class.—Asia, its islands, and Africa. Their Physical and political geography, and relations with other countries.

4th. Class.—Geography of Europe, physical, political and economic.

3rd. Class.—France and its colonies; their physical, political and economic geography, climate and military organisation.

2nd. Class.—Discovery of the earth, historical, astronomical and scientific geography. Population. Interaction of Man and Nature; outlines of economic Geography, Products Transport, Roads and Ports.

1st. Class.—Some more general geography. Formation of Historical France.

There are two higher classes in which geography as a separate subject ceases.

We will bring this paper to a close by appending a few remarks on these schemes. As regards the limits of geography, the schemes are very comprehensive, in spite of the fact that not a great amount of time is given

to the subject in the curriculum. In the three lowest Prussian classes, two hours a week are given : in the lowest class of the Lycée proper History and Geography get three hours between them. This goes a long way towards proving that a wide conception of the subject is not incompatible with the devotion of a small number of hours to it, though many will feel that the French scheme is too wide. Both the schemes indicate the use of the principle of correlation, which was discussed in the third part of this article. Lastly it is obvious that, if these schemes are skilfully used, many valuable qualities of mind will be cultivated. Still it must be admitted that interest in the subject should be got through the imagination, and it is open to question whether the local accurate home details required in the logical Prussian scheme will supply this interest. It would seem better to take large divisions early : indeed, it is essential to do so if climatic conditions and the like are to be successfully examined. But this will be more fully dealt with in discussing the value of the teaching of Local Geography, which we hope to deal with next month.

Educational Ideals and Methods in Ancient and Modern India.

An address delivered at the anniversary of the Teacher's Association, Teachers' College, on 18th December 1906, by Mr. K. S. Ramaswami Sastri, B.A. B.L., High Court Vakil, Madras.

The subject that I have chosen to speak upon today is attractive to a degree. I am going to speak of the educational ideals of a land where the teacher has been regarded as an incarnation of the Godhead, where crowned kings went with folded arms and bowed heads to the great teachers humbly seeking illumination from them, where teaching and learning were regarded as the most sacred duties of life. I am going to speak of educational ideals to the descendants of men who "scorned delights and lived laborious days," according to whom life offered no greater charms than the learning and the propagation of Truth, who consecrated their lives to the sacred cause of learning. As one of the descendants of such men, I feel that the words which I am going to speak this evening will not be utterly useless, though I have not lived up to their noble standards of plain living and high thinking ; and hence it is that I have made bold to come before you with this discourse.

I shall first of all say something about educational ideals in general ; I shall then give you a very brief survey of educational ideals and methods in various parts of the world, mainly with a view to contrast with them the educational ideals and methods in India ; thirdly, I shall deal with the educational ideals and methods in Ancient India ; fourthly, I shall glance briefly at their historical development till the Pax Britannica became an accomplished fact ; and lastly, I shall say a few words on the present day educational ideals and methods, making a few suggestions as to the proper lines of development in the future.

First, as regards educational ideals in general. These have differed from age to age, and it is difficult to make any general statement which will apply to all of them. But it may be stated that the educational ideal has always been the unfolding of the divinity in man. Whatever forms man's activities have taken, one common characteristic is clearly noticeable,—a characteristic that differentiates them from all other activities in the universe. This common characteristic is an attempt to function more and more largely on the mental and the spiritual planes. Even the savage of the stone age, fashioning his stone implements to kill wild animals, shows the activity of that which distinguishes him from all other things—Mind : while his attempts at tribal life subordinating the interests of the individual to the interests of the tribe and his desire for spiritual communion though it merely took the form of ghost worship and ancestor worship show the further differentiating marks—the possession of a moral and spiritual nature. So we find the educational ideal was in the beginning the fitting of the savage for functioning more and more largely on mental and spiritual planes though his activities were yet on a poor scale, such as excites pity and mirth in us, the cultivated humanity of to-day. Throughout all time this characteristic has always been persistent in all educational schemes, and is one worthy of the most careful consideration if we are to arrive at right conclusions as to the proper lines of development in the future.

* * * * *

[We very much regret that we have to omit for want of space the second section of the address, viz., the author's admirable summary of the educational systems of the ancient Egyptians, the Jews, the Chinese, the Greeks, and the Romans and of the great educators of mediæval and modern Europe. Ed.]

I now come to the third branch of my discourse—educational ideals and methods in ancient India. There is much that is of enduring beauty and value in them. One noteworthy feature of the system of education which prevailed in ancient India was its intimate connection with religion. Ignorance was the bar to salvation, and knowledge the only door to liberation (Mukti). Hence the vital importance of the cultivation of knowledge. The teacher regarded his work as a sacred occupation, and the student regarded study as a sacred duty.

As the Report of the Commission of 1882, says, "Under the early Brahman civilization, the instruction of the youth of the higher castes formed a religious duty, and in the case of the Brahmans themselves, the years devoted to learning were recognised as one of the four heads in the scheme of each man's life." The Right Rev. the Bishop of Madras said in a very instructive article on *Higher Education in India* : "But in ancient India religion supplied the whole motive of the higher education of the Brahmans and dominated the whole system..... To give instruction for the sake of gaining a livelihood would have been regarded as a degradation..... In all cases the period of study was part of the whole duty of man as a religious being, and its object was the attainment of purity of life and of that knowledge of the sacred scriptures which it was believed would make men wise unto salvation" Apastambha says : "He whose father and

grandfather have not been initiated, and his two ancestors are called 'slayers of the Brahman'. Intercourse, eating, and intermarriage with them should be avoided" (I. 1. 1.) So great was the penalty for not doing the sacred work of studying. The teacher was regarded as God incarnate on earth. Vishnu says: "Of the natural progenitor and the teacher who imparts the Veda to him, the giver of the Veda is the more venerable father; for it is the new existence acquired by his initiation in the Veda, which will last him both in this life and the next". (XXX. 44). Manu says: "Of him who gives natural birth and him who gives the knowledge of the Veda, the giver of the Veda is the more venerable father; for the birth for the sake of the Veda ensures eternal rewards both in this life and after death". Also learning was regarded as entitling a man to universal respect. Vishnu says: "Wealth, kindred, age, the performance of religious observances, and fifthly, sacred knowledge, are titles to respect; each subsequent one is superior to the one preceding in order". (XXXIII. stanza, 16.) Strict rules are laid down as to who alone should be teachers, as to the qualifications the possession of which alone will justify a man to assume the role of an Acharya. Apastambha says: "As performer of this rite of initiation he shall seek to obtain a man in whose family sacred learning is hereditary, who himself possesses it, and who is, devout in following the law. And under him the sacred science must be studied until the end, provided the teacher does not fall off from the ordinances of the law." (Apastambha I. 1. 1). Also, if the teacher is incompetent he can go to another teacher. The same great lawgiver says, "On account of the incompetence of his teacher he may go to another and study there." (Apastambha I, 2, 7). As to the qualifications of a student, a very fine passage may be quoted from Vishnu: "If by instructing a pupil neither religious merit nor wealth are acquired, and if no sufficient attention is to be obtained from him for his teacher's words, in such soil divine knowledge must not be sown; it would perish like fine seed in barren soil". The deity of sacred knowledge approached a Brahmana and said to him: "Preserve me, I am thy treasure, reveal me not to a scorner, nor to a wicked man, nor to one of uncontrolled passions; then I shall be strong. Reveal me to him, as to a keeper of thy gem, a Brahmana, whom thou shalt know to be pure, attentive, possessed of a good memory, and chaste, who will not grieve thee, nor revile thee." (Vishnu XXIX stanzas 8 to 10). The rule in Apastambha as to the proper age for commencing studies is curious. He says: "Let him initiate a person desirous of excellence in sacred learning in his seventh year, a person desirous of long life in his eighth year, a person desirous of manly vigour in his ninth year, a person desirous of food in his tenth year, a person desirous of strength in his eleventh year, a person desirous of cattle in his twelfth year". (Apastambha I. 1. 1). The period of study is thus stated: "He who has been initiated shall dwell as a religious student in the house of his teacher for forty-eight years, if he learns all the four Vedas, or a quarter less, or less by half, or three quarter less. Twelve years should be the shortest term for his residence with his teacher." (Apastambha I. 1. 1). As regards the course of instruction, he was bound to reside with his teacher, and learn from him the Vedas and Vedangas. He was bound to obey his teacher, except when ordered to commit crimes which caused loss of caste. He was to live a strictly ascetic life. He was to live upon alms, and was bound to allow himself no luxuries. He should not use perfumes or wreaths of flowers, should not anoint

his limbs, nor wear sandals nor carry an umbrella. As regards the method, it must be noted that the discipline was very mild. Gautama says. "As a rule, a pupil shall not be punished corporally. If no other course is possible, he may be corrected with a thin rope or a thin cane. If the teacher strikes him with any other instrument, he shall be punished by the king." (Gautama II. 42-44). Apastambha says, "Loving him like his own son, and full of attention, he shall teach him the sacred science, without hiding anything in the whole law. Frightening, fasting, bathing in cold water, and banishment from the teacher's presence are the punishments which are to be employed according to the greatness of the fault, until the pupil leaves off sinning." (Apastambha I. 2. 8). It would seem also that a teacher sometimes had a number of pupils around him at the same time. After the close of the period of studentship, the student was bound to pay a fee to his teacher. Apastambha says: "After having studied as many branches of sacred learning as he can, he shall procure in a righteous manner the fee for the teaching of the Veda to be given to his teacher, according to his power." (Apastambha I. 2. 7). I must here attempt to remove two prevalent misconceptions. One is that in ancient India education had no practical end. Though the religious aspect of education was insisted on, yet the other aspects were really not lost sight of. Manu says: "Some declare that the chief good consists in the acquisition of spiritual merit and wealth, others in the acquisition of spiritual merit alone, and others say that the acquisition of wealth alone is the chief good here below; but the correct decision is that it consists of the aggregate of those three." (Manu II. 224). Another misconception is that education, was a mere matter of memorizing, and there was no real culture. As regards this, I shall only quote a passage from Laurie's *Pre-Christian Education*. "We must recognise in the substance of the highest Hindu education a fully adequate course of liberal study, embracing, as it did, theology, philosophy, languages and science, while including the whole of the national literature as that gradually took shape" (Laurie p. 180). Again, another characteristic was that education was suited to the heredity and the environments of men. The door of knowledge was not thrown open to all. Instruction was in the main oral, though the art of writing certainly existed long before the time of Alexander's raid into India. Another noteworthy feature is the thorough absence of state interference in matters of education. The chief defects of this noble system which I have sought to describe were, in respect of ideals, (1) the too exclusively literary character of the instruction imparted, (2) the absence of the harmonious development of human powers, (3) the absence of insistence on physical culture; (4) the restricted area of education, there being no widespread education among the masses, and (5) absence of high education among women though we find here and there highly cultured persons like Gargi and Maitreyi; and in respect of methods, (a) storing the mind and memorising rather than the cultivation of all mental powers; (b) the preference of the analytic and dogmatic method, preferring names to ideas and words to things; (c) absence of room for self-instruction, though the beautiful story of the man whom the teacher allowed to find Brahma for himself and who finally found out the true nature of Brahma (आनन्दं ब्रह्मेति व्यजानात् 1) shows that this idea was not unknown; (4) the preference of deductive to inductive processes of reasoning. The noble ideals and methods which prevailed in ancient India are thus seen to be worthy

of our serious consideration not only because they are so beautiful in themselves, but because they supply us with valuable hints as to the manner in which the mighty fabric of national education should be reared in India hereafter.

I shall now proceed to consider the fourth head of my discourse and give you a brief historical survey of the development of educational ideals and methods in India till the Pax Britannica became an accomplished fact. We must first of all mention the village schools which were such a common feature of the Indian social organisation. The pupils sat round the teacher under trees in front of a house; and when the weather was bad, in a covered shed. "In arithmetic, only the merest elements were taught; writing, with which instruction in reading was closely connected, was first practised in the sand, then with an iron style on palm leaves and finally on plane tree leaves with a kind of ink." Also there was a system of mutual instruction among students. Dr. Bell organised his monitorial system from what he saw at Madras. One peculiarity of these schools was that it was usual for a more advanced pupil to point out the letters to a beginner. Another event that is worthy of special notice was that there early arose (about 1000, B. C.) Brahmanic settlements called Parishads, which approximated closely to the modern collegiate institution of learning." Young men went to these Parishads to acquire learning. Thus in Brihadaranyaka Upanishad, we learn that Svetaketu went to the Parishads of the Panchalas for his education. These Parishads were in later times understood to consist of twenty-one Brahmins well versed in philosophy, theology, and law; but in their beginnings, three able Brahmins in a village, learned in the Vedas and competent to maintain a sacrificial fire, constituted a Parishad. "Private schools also existed, conducted by scholarly men at their own venture, and to these many boys were sent for training, giving personal and mental service in return for instruction. These boys did not necessarily belong to the Brahmanical caste." Prior to this rudimentary form of educational organisation, the courts of the King were the centres of such culture as existed then, and the priests were the custodians of that culture." Of these, the Parishads have now disappeared, but private Sanscrit schools (tols) have survived to the present day. "In 1881 there were in Bengal no less than 1010 tols with 7680 scholars, in the North-west Provinces and Oudh 1235 tols with 4100 students; and in the Bombay Presidency 48 Hindu Vedashalas and Sanskrit schools." With regard to Madras, the report of the Education Commission of 1882 says: "In every large town containing Brahman residents and in every Hindu *matam*, instruction in the Vedas, Upanishads, the Indian system of logic and philosophy, the grammar of Panini, rhetoric, the Hindu epic poems and dramas and Hindu law, has been given from the earliest period."

As regards the subsequent historical development of education in India, it must be noted that the Buddhist reformation placed religion and education on a more popular basis. "The Chinese travellers and the Pali texts bear witness to this fact, and in the 7th century A. D. the vast monastery or Sangharama of Nalanda formed a seat of learning which recalls, by the number and zeal of its students, the later universities of mediæval Europe. After the Mussulman conquest, the mosque became in India, as in other countries of Islam, a centre of instruction and of literary activities." The report of the Indian Education Commission of 1882

thus sums up the educational situation at the time of the British advent into India: "The East India Company found the four ancient methods of education still at work: in the instruction given by the Brahmins to their disciples; in the Tols or seats of Sanskrit learning; and in the makhtabs and Madrasas or schools and colleges of the Muhammadans; and in the large number of village schools which also existed. These village schools gave an elementary education to the trading classes and to the children of the petty landholders and well-to-do families among the cultivators."

One word before I proceed to tell you the effects of British rule on educational ideals and methods in India. We must remember some of the characteristics of that great and wonderful phenomenon, the Western civilization, if we want to realise exactly the underlying principles of the change that is going on around us. It is a singular phenomenon that we are witnessing in India at the present day. A society that was adorned by the graces of culture, pre-eminent in arts and philosophy, pre-eminent in military power fell from "its high estate." Hordes after hordes of invaders passed over the land. But they had no influence on the life of the people. Sheltered behind the impassable walls of caste and tradition, the old life lingered on. The face of the land was changed from time to time; Buddhist monasteries displaced Hindu temples and were supplanted by Mahomedan mosques; the Hindu territory passed into alien hands; yet the citadel of national life was left intact. But in the wisdom of Providence a new power came on the scene which was destined to rule the land and profoundly affect the ideals of the people. When the ships of the East India Company reached Indian shores, the genius of the West began its career of conquest in the East. Ever since then there has been a new stir in the social and religious atmosphere of the land. The previous conquerors when they came to this "land of the Lotus" succumbed to its languorous influences. But the British invader came into the land with a splendid energy that defied such influences and infected the people of the land with a contagious enthusiasm. Ever since then the Eastern and the Western ideals have been in conflict and it is the result of this conflict and the directions in which we should profit by the new stir in the land that I intend to consider now. England, as the champion of the modern spirit, is trying to rouse India from her sleep of ages. The chief characteristics of this modern spirit are the submission of every thing to the test of reason, a frank and cheerful acceptance of what are regarded as the inevitable limitations of life, and an attempt to realise in social life the noble ideals of liberty, equality and fraternity. It is only if we consider the activity of the British in the field of education in India as an aspect of the workings of the modern spirit of which they are the apostles to us that we can realise the full meaning and value of the phenomenon that we are witnessing in India.

The first step taken by the British Government towards the education of the Hindus was inspired by a desire to promote Sanscrit scholarship. The Sanscrit College was founded at Benares in 1791. The Calcutta Madrasa for Mahomedans had been already founded in 1782. The organisation of the Benares College was essentially Brahmanical. Christian Missionaries made the field of Vernacular education their own. Jesuits at Madura wrote fine Tamil

works two centuries ago. About 1810 the Baptist Missionaries at Serampur raised the Bengali to the rank of literary prose dialect. Also the Missionaries were the first to cast type in the Vernacular languages and to employ native compositors. The earliest Vernacular newspaper was the *Samachar Darpan*, issued in Bengali by the Baptist Mission at Serampur in 1818. Provision was made for giving regular assistance to education from public funds by a clause in the Charter Act in 1813, which empowered the Governor-General in Council to direct that one lakh of rupees in each year should be set apart and applied to the revival and improvement of literature and the encouragement of the learned natives of India and for the introduction and promotion of a knowledge of the sciences among the inhabitants of the British territories in India. Oriental Colleges were established at Calcutta, Agra and Delhi in 1824-25. In Bombay Elphinstone sought to work through the Vernacular. His scheme was to teach English as a classical language and impart higher education through the Vernaculars. In Madras a Board of Public Instruction was appointed in 1826. Under its auspices a central school was established at Madras, in which the Hindus were to be educated in the Sanskrit and the Vernaculars. Bose says "Whilst the authorities were trying to spread classical education in Bengal, Vernacular education in Bombay and a mixture of both in Madras, the Hindus themselves were expressing their eagerness for English education in no uncertain tone." Raja Ram Mohun Roy pleaded the cause of English education. The Hindu College of Calcutta was started by the leading Hindus and by David Hare to give English education. Speaking of it the Committee of Public Instruction said: "The consequence has surpassed our expectation. A command of the English language and a familiarity with its literature and science have been acquired to an extent rarely equalled by any schools in Europe." In 1833 there was a famous controversy between the Anglicists and the Orientalists, which was terminated by the famous minute of Lord Macaulay. This minute marks the point at which official recognition was given to the necessity of public support for Western education. A fresh impetus was given to English education by the discontinuance of Persian as the official language from 1838. In 1854 various measures were taken to carry out this policy further and more satisfactorily. A Department of Public Instruction was constituted; Universities were founded; training schools for teachers were established; provision was made for maintaining the existing Colleges and schools of a very high order and to increase their number, if necessary; the grants-in-aid system was introduced to foster a spirit of reliance on local exertions. Vernacular education and female education also have received careful attention."

The beneficial results of this widespread English education have been admirably summed up in the resolution of the Government of India on Indian Educational Policy 1904. It says: "It is almost universally admitted that substantial benefits have been conferred upon the people themselves by the advance which has been made in Indian education within the last fifty years; that knowledge has been spread abroad to an extent formerly undreamt of; that new avenues of employment have been opened in many directions; and that there has been a marked improvement in the character of the public servants now chosen from the ranks of educated natives as compared with those of the days

before schools and universities had commenced to exercise their elevating influence (p. 6). In short, the Middle Ages of Indian history have come to an end. The long night of mediævalism in belief and thought is drawing to a close. We are sharing in the modern spirit, and are profiting by the new illumination.

"Through the shadow of the globe we sweep into the younger day."

The characteristic defect of the old systems of education have been removed. We have risen to the conception of education as a national duty. We see the imperativeness of bringing the light of knowledge into all the homes in the land where darkness and discomfort reigned before. We have begun to realise the need for extensive primary education and female education. We have begun to consider everything in the light of reason and realise that "we are the ancients of the world and in the morning of the times." We have begun to appreciate the limitless loveliness of the best literature of the West. Such a system of education with such possibilities of good begun in a land which has always regarded culture as the *summum bonum* of life, can surely be expected to give birth to the most beneficial results.

But has the new system of education been productive of all the good results which were confidently expected from it? We must now consider the other side of the picture. I shall first consider the chief defects in respect of ideals. The first is the divorce of religion from education. In a land where religion is the mainspring of the national life and education has always been religious in its character, the introduction of a purely secular system of education has been productive of the most mischievous results. Though in many cases the inherited love for the things of the spirit asserts itself

"Like fountains of sweet water in the sea,"

yet often—too often alas! for the welfare of the nation those who have been brought up under the new system go through life with no higher aims than the acquisition of wealth and titles and social position, unaware of the real significance and value of life. Another evil that is closely connected with the one I have been dealing with is the purely commercial conception of education that is prevailing in India. That grim hunt for comfort which goes by the name of practicality is now becoming a very noticeable feature in Indian life. Learning is valued only because it enables the learner to get the comforts of life. Bishop Whitehead says: "In the evidence given before the Indian Universities Commission of 1902, witness after witness from every part of India deplored the 'utilitarian spirit' that prevails among the students, and the fact that students will not attend to anything that does not pay for the examinations. With a few notable exceptions it may be said that the love of learning is almost non-existent in our modern Universities." "Glory and loveliness have passed away." "Plain living and high thinking are no more." We

"have forfeited our ancient Indian dower
Of inward happiness."

Is there any disinterested love for science or the fine arts among us? No, a thousand times, no. And this is what we have come to, we, who are the children of the Rishis, who inhabit the land that was trodden by the holy feet of Vyasa and Valmiki, that was sung in immortal verse by Kalidasa and Bhavabhuti.

Another noticeable defect is that which is characteristic of all western activity, the feverish haste to possess and enjoy all things. There is an attempt made to store the mind with all kinds of information—useful and useless—because a man ought to learn all things worth knowing. This is a noble ideal, and I am perfectly alive to the fact that the pursuit of it will liberalise our minds. But there is such a thing as overdoing a good thing and that is what is being done now. In this connection it is well to remember what Monier Williams says in his *Modern India for the Indians* (p. 216): "To secure more real education we have to make our teachers understand that the human skull, which is their field of operations, is not in childhood a mere rigid case, or empty cavity, to be packed like a portmanteau, with a given amount of knowledge in a given time, but rather an assemblage of organs and capacities, to be gradually and carefully shaped, moulded, and expanded."

Upon this tendency of modern life Mathew Arnold has written a few lines which are worthy of careful consideration:

"Moderate tasks and moderate leisure
Quiet living and quiet measure,
Both in suffering and in pleasure.
'Tis for this thy nature yearns.
But so many books thou readeest,
But so many schemes thou breedest,
But so many wishes feedest,
That thy poor head almost turns.
And (the world's so madly jungled
Human things so fast entangled)
Nature's wish must now be strangled
For that best which she discerns."

("The Second Best").

A fourth defect is "that artistic education in itself as well as a portion of liberal education is conspicuous by its absence. We are taught a lot of algebra and ancient history, but those things that are and ought to be the solaces of life to every soul are ignored. We are taught the internal structure of the human eye: but our teachers are not solicitous to teach us the real use of the eyes, to enable us to realise and appreciate the loveliness of this beautiful world, the glories of Earth and Heaven. We knew a lot of rot about the tympanum and the auditory nerves, but we have lost our famous power of appreciating harmony. We can screech from platforms about progress and happiness, but we cannot strain our throats into quivering song." I am putting the case somewhat too strongly, but the fact is deplorably true and needs urgent and careful consideration. Another defect is the restricted area of technical education, and our apathy to primary education and female education. These are matters well known to you and besides to dwell upon them in detail will not be possible at this late hour of the day. There are certain other matters also, e. g., compulsory national education, which I forbear from considering for the very same reason.

I shall now deal briefly with the defects in respect of the educational methods now prevalent in India. The first place must be given to that defect which has been pointed out over and over again—the abuse of examinations. One aspect of this evil has been very neatly put in the Resolution of the Government of India

of 1904. "In recent years they (the examinations) have grown to extravagant dimensions, and their influence has been allowed to dominate the whole system of education in India with the result that instruction is confined within the rigid framework of prescribed courses, that all forms of training which do not admit of being tested by written examinations are liable to be neglected, and that both teachers and pupils are tempted to concentrate their energies not so much on study as upon the questions likely to be set by the examiners." Another aspect of it is to be seen in the effect they have upon the mind and the body of the students, in the lack of energy which the men ruined by the system of examinations display, in the spread of early mortality among them. Another defect is the result of the above, and it is the attempt at cramming the minds of students with all sorts of useful things, not *really useful* things, but things useful for examination purposes. This cram is unlike the old cram in that it is not regarded as a matter of pride or as a title to respect. The student makes haste to forget the useful things after their use is over. A third defect is the use of English as the medium of instruction. It was an unfortunate day for us when in the famous fight the Anglicists triumphed. Our lack of originality, the hopeless gulf that exists between the educated and the masses, our inability to get through the words to the things they represent—are due to this defect. Bishop Whitehead points out that one reason why the Western culture has had a different effect upon the Japanese nation is that, almost from the first introduction of Western education, it was resolved by the Japanese that the medium of instruction should be their own vernacular. "And the result is that they have been able to grasp and understand the new ideas of Western literature and science far more readily than the people of India." I shall not be able to-day to set forth fully all the ideas that I have on this subject. One remedy—partial as it may be—is to use the vernaculars alone as a medium of instruction till the grade corresponding to the old middle school is reached. I repudiate the idea that the vernaculars are useless as vehicles of progressive thought, for it is a gross libel to pass such a remark on languages in which Kamban and Tulasi Das and Mora Punt wrote, which have been refined and improved in modern times by Bankim Chunder, Vivekananda and others. Other defects are a limited use of the Kindergarten system, a lack of appreciation of the modern theory that the senses should be educated first, a non-recognition of the home element in education, and too much preference for collective education without proper safeguards and a consequent lack of individual appeal in education. These are matters which would each require a paper for itself and hence I have to content myself with merely mentioning them now.

I have done. I know the imperfections of this discourse. It was prepared in a hurry by one who is an outsider so far as educational matters are concerned and who has been attracted here rather by a wish to benefit by your opinions than by a desire to preach any gospel. Let me conclude with those wonderful lines of Tennyson which have always fascinated me:

"Let knowledge grow from more to more
But more of reverence in us dwell
That mind and soul according well
May make one music as before
But vaster."

The Education of Women in India.

The subject of female education, generally believed to be a well-worn theme, has of late acquired more than ordinary importance by reason of the discussions carried on at the late Social Conference and in public prints. An impartial consideration of the question reveals the fact that the education of women in India is not to be trifled with, and that national welfare and prosperity imperatively demand the earnest endeavours of the people to aid the work of Government and other educational agencies. Men and women being the necessary units of a nation, national prosperity is not possible without an onward movement of both units or without a thorough harmony and cohesion between them. Indian women occupy a rather unenviable position in the family, being unable by their lack of culture to occupy a position of equality with the men. Let us see if this state of things has existed from the remote past or if it is only a case of subsequent degeneracy. During the rationalistic period (B. C. 1000-242) women held a high position in the family and were treated with much respect. It is writ in the Dharma Shastras: "A father who has committed a crime causing loss of caste must be cast off. *But a Mother does not become an outcaste for her son.*" Vasistha, XIII, 47 and 48 say: "The Acharya (teacher) is ten times more valuable than an Upadhyaya (sub-teacher), the father a hundred times more than the teacher, *and the mother a thousand times more than the father.*" The earliest precept taught to the child says, "Your mother and father are your first gods." Mark the prominence assigned to the mother. In those days women had much freedom; they were allowed to study the shastras and could devote themselves to the pursuit of philosophy. Gārgī Vāchaknavī distinguished herself among the learned men in the court of Janaka, while Maitreyi learnt the secrets of the Upanishads from her husband Yajnavalkya. They are said to have played an important part in social and political affairs and were able to bring up their children properly. Early marriage which is so great an impediment in modern times to the education of girls, was unknown in the Vedic period and in the next period though it was coming into vogue, it had not become an established usage.

In the Buddhist period (B.C. 242-500 A.D.) though women are stated to be dependent on their male relations, yet "they were honored in their families, respected by their relations and held in esteem by the society in which they lived." It is not within the scope of this brief article to go into a detailed examination of the causes that brought about the dethronement of the woman from her exalted position in the family and in the community. Be the causes what they may, female education worth the name did not exist in ancient India or in the pre-British period of her later history. It was reserved for Lord Dalhousie to take the first step in this direction. A beginning had been made by the missionary societies at an earlier date, and in the School for girls established at Calcutta in 1849 by Mr. Drinkwater Bethune (now developed into the Bethune College) a few girls of high caste received instruction. The Despatch of 1854 required Government to give its frank and cordial support to the movement as the moral tone of the nation depended more on this than on the education of men. "The Education Commission of 1882 gave the subject a prominent place in their Report, they advised that it should receive special encouragement and be treated with special liberality, and they made a series of suggestions for its extension and improvement." (Quinquennial Report by R. Nathan, Esq. C. I. E.). But in spite of the best efforts of Government, Zenana and other mission bodies, not much has been made in the way of progress, for "only seven females in one thousand can, on an average, read and write, and of late years the rate of progress has diminished."

The various educational agencies have had to contend not merely against the force of unfavourable social customs, such as, early marriage, the belief in the inferiority of women and the like, but against more serious, but avoidable, influences, such as the apathy of parents, nay, their positive opposition to the movement. Educated men who have made solemn promises at University Convocations "to promote the cause of morality and sound learning" and "to uphold and advance social order" and the well-being of the community have been remiss in the discharge of this sacred duty. The Government may be said to have more than discharged their duty in respect of female education by the establishment in important

centres of model primary girls' schools, by an increase in the number of training schools for mistresses and by increased grants to missionary and other bodies engaged in the diffusion of knowledge among the women of India. And the results have justified their expectations. Speaking for Madras, for the first time in the history of Education, ladies belonging to the most orthodox sect of the conservative Brahmin class have won academical distinctions and stand as beacon lights to coming generations. The latest departmental report, viz., that for 1904-05, says: "There was an increase in the number of pupils in every stage of instruction." In Bombay the note of praise is louder yet. The Director of Public Instruction in his latest report says: "I stated last year that there was much that was encouraging in the whole account of Primary Education for girls. This year (1905-06) the reports are even more hopeful." The Punjab Government reviewing the report on education in that province for the past year says: "From all quarters indications are being received that the prejudice against the teaching of girls is at last breaking down. The attempts to deal with the problem of how to systematise the teaching going on in Zenanas, and to substitute a proper curriculum under trained teachers for the desultory and spasmodic tuition imparted behind the purdah, are beginning to bear fruit. It is true that the obstacles raised by the purdah system have not as yet been removed, and that partly on this account and partly because Urdu is not the mother tongue of the pupils, the success among Muhammadans is markedly less than among Hindus. But even here there are hopeful signs." It is another hopeful sign of the times that the ladies have begun to bestir themselves and to consider the question of the amelioration of their condition. Mark the gathering of the more prominent Indian ladies headed by enlightened princesses like the Maharanees of Mysore, Baroda, and Cooch Behar, and Mrs. Sarojini Naidu at the Bethune College, Calcutta, where the question of the regeneration of women was discussed in all its bearings.

Yet much remains to be done. Girls' education has to be pushed beyond the primary stage at which most girls now leave school more congenial school life has to be fostered, teachers imbued with the fervour of enthusiasm and patriotism have to be provided, courses of studies have to be better adjusted to the needs of the sex

and reform is needed in diverse other ways. May we not hope that the men who are anxious to build up the nation will devote more energy to the solution of this problem than they have done in the past and strive to reach a higher and nobler goal?

The Christmas Vacation Classes for Teachers in Training Schools.

ORIGIN AND SCOPE.

The Christmas Vacation classes for Teachers in Training Schools in this Presidency which have been held during the past three weeks in the Teachers' College buildings at Saidapet form one of the rare examples of the intellectual activity of the educational world, the necessity for which was but recently recognised in this country. To Mr. Stone to whose special care the destinies of the training schools were entrusted by the Government of Madras towards the close of 1903 is due the credit of the idea of these classes and their conduct to meet the desired ends. Primarily intended as a preliminary training to the staffs of training schools to enable them to teach satisfactorily a curriculum on Nature Study subjects, the necessity for which was only recognized by Mr. Stone, the scope of these classes has so widened as to interest and elevate the whole of the Department. The classes held in December 1904 which only the training school-masters attended imparted instruction in Horticulture, Botany, Geology, Drawing, and Kindergarten methods with demonstration lessons. Lectures on Horticulture were given by the agricultural teachers on the staffs of training schools, Botany was taught by M. R. Ry. K. Rangachariar of the Egmore Museum, Physical Geography by Mr. S. Lakshmana Iyer, Geology by Dr. Henderson, Drawing by Mr. Stone, and Kindergarten methods by Miss. C. L. Gillingham of the Teachers' College.

Mr. P. P. Braithwaite who acted for Mr. Stone as Inspector of European and Training Schools clearly discerned the beneficial results of his predecessor's policy in the improvement and culture that was noticeable in the students of the various training schools, and rightly felt the necessity for the continuance of these classes in December 1905. With the kind sanction of the Government of Madras secured through the help of the Hon. Dr. A. G. Bourne, who took a great interest in the efficient conduct and moral as well as social usefulness of the classes, he was able to organise and conduct these classes a second time. A new feature of the 2nd year's work was a course of lectures on applied Psychology by Mr. Braithwaite himself, some on Physics and Chemistry, and the beginnings of an educational conference in which ample opportunities were afforded to the members of the

Department for exchanging ideas and thoughts. The difficulties which beset the work of the teachers were considered and as far as possible remedied. Another noteworthy feature during the year was that the Inspecting officers of the Department began to appreciate the value of these classes and attended the course.

The classes which closed last week are the third of the kind organised and conducted by Mr. Stone with a view to fit the masters of training schools for the revised curriculum in connection with the Preliminary Examination for Teachers' certificates under the new Educational Rules. The public of this Presidency will learn with much pleasure that the teaching of method in Elementary Training Schools has been discontinued, or at least, has been made subservient to that more useful general knowledge of things which our elementary teachers in villages were found sadly lacking in. The subjects that were taught this course were:—

- I. Surveying—
 - (a) With the Plane Table with a Compass. With a view to a better understanding of maps and plans by the teachers.
 - (b) Chain Survey.
 - II. Human Physiology and School Hygiene. With a view to teachers adapting their work in School Hygiene and Physiology under the new Curriculum.
 - III. Teaching of Arithmetic and Experimental Geometry. With view to remove the erroneous ideas of teaching mathematics.
 - IV. Lectures on Elementary school work.
 - V. The direct method of Teaching English and English Phonetics. With a view to improvement in methods of teaching English and English pronunciation.
 - VI. Kindergarten demonstrations by the pupils and teachers of the Olcott Free Schools under the guidance of W. G. Keagy Esq.
- The first two of these were done by special instructors and the next three were taken up by Messrs. Stone, Mayhew and Yates.

One important change during the present year is the continuance of the conferences in a completely altered form. From mere suggestions given out at random by the members during the previous year's classes, they developed into the reading of papers on various educational topics followed by discussion by the members of the classes, and presided over by experts. There were on the whole seven such conferences, three of which were presided over by Mr. Stone, Mr. Yates and Mr. P. P. Braithwaite (Inspectors of Schools), two by Mr. A. A. Hall, M.A., and M.R.Ry. S. Subra-

nanian Iyer Arergal, B.A., (of the Teacher's College), and the other two by the Hon. Mr. Castle Stuart Stuart, I.C.S., and Mr. E. W. Middlemast M. A., Deputy Director of Public Instruction.

One notable and pleasant feature about these classes is that Their Excellencies Sir Arthur Lawley and Lady Lawley visited the members while at work and expressed their pleasure at the good work done. His Excellency congratulated the teachers on their spirit of self sacrifice for their mental improvement and assured them that the seeds of goodness which they are sowing will certainly produce fruits of success in the future. The Hon. Mr. T. T. Logan, Director of Public Instruction, paid a visit to these classes.

Another point worthy of mention in connection with these classes was an exhibition of home-made teaching apparatus and appliances prepared by the students of various Training Schools of this presidency. Some of the exhibits, we are glad to say, were quite original and intelligently devised, and impressed us with the fact that many kinds of educational and other apparatus may be made with much less expense in this country under the guidance of the teachers themselves than those manufactured in Europe and America.

There was also a practical demonstration lecture in Astronomy with the aid of the magic lantern by M.R.Ry. R. Satagopa Iyengar M.A., L.T., Assistant, Teacher's College, which was very instructive and impressive and hence it was naturally much appreciated by the members.

To sum up, we are glad to say that the classes were made as useful and instructive as possible. The members who were in most cases either Training School-masters or Sub-Assistant Inspectors of schools had splendid opportunities in these three weeks of exchanging their ideas and experiences and of gaining each other's sympathy and co-operation in the great and good work that was before them. The social aspect of these classes and its benefits cannot be denied. Angularities were rounded off, views of things broadened, friendships made and above all emulation and sympathy fostered. The gain to the minds of the members has been indeed great. We cannot aptly conclude this note without the following climax: Educate a man and you educate an individual; educate a woman, you educate a family or even a race. Educate teachers—probably, you educate a nation then.

A. B. C.

An Athenian School about 430 B. C.

It may be of interest to give some details as to the character of a Greek school in olden times. At the time we propose to speak of Athens had reduced literature of unrivalled beauty, and matchless works of art, the

appreciation of which was not confined to a few experts but was enjoyed by the majority of the Athenian citizen. It may be wondered what influence the Athenian system of education had on this. Education may determine the future life of the schoolboy, or it may indicate the kind of culture that surrounded the pupil. It may or may not influence the adult achievement. It is a question worth asking what education Pericles, Socrates and Plato had. A full answer to this question is impossible, as our sources of information are scanty. We may glean something from contemporary or later writers, from vases and inscriptions. But the views of Greek thinkers on education are far better known than the prevailing practice. Nor is this enquiry altogether of speculative interest. For in spite of dissimilarities of time and race, if antecedents both then and there as well as here and now are found to be good, it may be possible to urge with some show of probability that these antecedents will be productive of good results and will therefore possess a practical value.

There existed in Athens no state organization, no state aid or payment of salaries, no compulsory education. We are told by a Greek writer that the Assembly never discussed education, though another writer mentions a few regulations passed by the State, for example a school was not to open till dawn.

To this inactivity on the part of the State two exceptions must be made. In the first place the State provided for the education of the children of those who fell in war. In the second place the State exercised some control over the study of the art of war which with the young Athenian began at eighteen years of age. Apart from these two exceptions, there was no State control at all. Any one could open a school; and the parent could get his son what education he pleased or neglect his education altogether. Neglect, however, seems to have been uncommon. From an Athenian comedy we learn that the poorer classes had a smattering of education, and that reading and writing were the accomplishments of nearly all. As in all countries, the rich remained longer at school than the poor. The rich are spoken of as remaining till they are eighteen. This absence of State interference may be accounted for in part by the Athenian's dislike of what would now be termed bureaucratic control. Further the number of Athenian citizens was extremely limited, so that the need for state interference was less.

As to the appearance of the schools, four vases have come down to us in which a boy a master and a book are seen, together with animals and friends of the boys! The subjects taught in the fifth century B. C. were divided into three parts,—Literature, which included reading and writing, Music, consisting chiefly of lyric songs sung to music, and Gymnastics—that is to say, physical training in general, on which tremendous stress was laid. In the succeeding century the Curriculum was enlarged by the addition of Geometry, arithmetic, history, astronomy, drawing.

A few indications remain of the methods employed in the teaching of these subjects. In writing the names of the letters was first made clear, then their properties; and then syllables were treated of. In the 4th century the chaarc-

ters were traced on wax and traced over again by the child. An inscription mentions a contest in writing between schools.

Arithmetic was probably taught with the abacus. In literature teaching the master read aloud each like separately. This was repeated by the boys till the whole passage was learnt by heart. It was nearly all poetry, and much of this poetry had a religious significance. It is a common place saying that Homer was the Greek Bible. Similarly in India the Hindus learn to repeat the Vedas. It is probable that much that the Greek boy learnt by rote was no more intelligible to him than what the Hindu so laboriously commits to memory.

Again, in Greek schools there was no home work at all. In the 5th century the day began with a lesson in literature or music, followed, it would seem, by an hour's riding. Then came some physical exercises; then a bath and the mid-day meal. In the afternoon there was more literature. Not a heavy day's work, nor an Encyclopaedic curriculum such as is the despair of modern schoolmasters. Lastly, in connection with method, the teaching was individual. Each boy was attended to in turn. The rest talked or walked about.

The position of the teachers was not good, and the few references to them in literature are uncomplimentary. Finally, discipline was enforced by blows and masters were advised to rule with a rod of iron.

Thus we see that the work was light and that, while there was a natural desire for some instruction there was no state control, there was very little formal instruction and immense attention was paid to physical culture.

Secular Education.

The denominational broils in which the Education Bill has involved us are driving some Englishmen to consider with diminished aversion the case for secular education. Before they accept this solution of our Educational problem they would do well to study the effect of such a system in a country within the British Empire in which it has been in operation for more than a generation and in which, therefore, we are in a position to judge it by the fruits it has borne. In India all education, primary, secondary, and collegiate, is with few exceptions secular, and, owing to the fact that the Educational system was planned by the British Government and was not the development of indigenous ideas, secularism has been pushed to its logical extreme and has not been diluted by any other influence. Not only is there no religious teaching in Indian schools and Colleges, but the instruction given is solely intellectual; no effort is made to influence conduct. The origin of this curious theory of education is obvious. The Government of India, ever since it undertook the provision of education in the days of Lord William Bentinck, has been pledged to a policy of religious neutrality in education, and as a great part of religion in the East consists of precepts regulating conduct, it seemed impossible to undertake the control of conduct without appearing to meddle with the religious beliefs of the students. If an educational officer of those days had chance to have a young Thug in his class he could not

even have reprobated murder without trespassing upon the forbidden ground of religious opinion, and even now he could not lay down the law upon some elementary questions of morality without coming into conflict with certain phases of Hindu opinion. A simple solution of this difficulty seemed to be offered by a division of responsibility between the school and the parent. The schoolmaster was confined to purely secular teaching, and the parent was made responsible for the moral and religious training of his son; the day scholar system, which is almost universal in India, was based upon this theory of divided responsibility. Now the first thing of which Englishmen should take note is that, in spite of the ostentatious manner in which the school relegated to the parent all responsibility for the good conduct and religious orthodoxy of the boy, the parent was not able or not willing to fulfil the educational task allotted to him. It must not be supposed that Indian fathers are any less anxious for the welfare of their children than fathers in Europe. On the contrary, no people in the world have more affection for their children than the Indians. The failure of the Indian system of divided responsibility appears to be due to some general cause. All the world over schoolmasters grumble at the supineness of parents and at the necessity of doing in school that part of the educational work which ought to be done at home. Only a few days ago Mr. M. E. Sadler called attention to the fact that in Europe, "owing to the pressure of modern life, the school must often stand *in loco parentis*"; and in the East, where the pressure of life is much less, there is the same necessity for the school to discharge the functions which the parent neglects. The truth appears to be that, when once the parent has handed over to the school the care of a part of his son's education, he very soon divests himself of all further responsibility for his upbringing. If secular education is recommended in England in the belief that the parent will supplement the deficiencies of the schools, Indian experience demonstrates clearly that the average parent will do nothing of the sort.

The educated Indian of to-day is therefore mainly the product of the schools and colleges; the influences of secular education have been very little modified by parental teaching. What, then, is the verdict of the world upon the products of this educational system? It must be confessed that by all except those who are themselves the products of the system the verdict is an unfavourable one; there are few aspects of our rule which Englishmen contemplate with so little satisfaction as the schools and colleges of India, and old-fashioned Indians are not one whit less censorious. A great many of the hard things which are said of the Indian graduate are probably undeserved, and he has done much good work for which he rarely gets the credit; but, when every allowance has been made, it must be confessed that in two directions his shortcomings are serious; in his sense of duty to his religion and of duty to the State he is a worse man than his father.

There are, of course, some Indians, both Hindu and Mahomedan, who retain even in the uncongenial atmosphere of a secular college a religious habit of mind, but that these are the exception is shown by the fact that no Pundit or Maulvi of the old school can ever be got to believe that a B. A. has any religion worth speaking of. Indeed, to wear English clothes, which are affected by those who

have had an English education, is generally recognised as an outward and visible sign of the loss of faith. Another manifestation of the religious indifference which is acquired at College is the decay, among the upper and middle classes, of religious bigotry. If this had been due to the growth of a broad spirit of toleration it would have been a result of which our educational officers might have been justly proud, but the spirit of bigotry remains, though the object against which it is directed has been changed. A fanatical ill-will against other communities has taken the place of the religious intolerance of former days; as a very shrewd Mahomedan once observed to the present writer, "nowadays, religious bigotry is growing less and less, but national bigotry is growing more and more." Every community which has been influenced by English education is showing signs of this intolerant spirit, but it is perhaps exhibited most strongly among certain classes of Hindus. The increasing bitterness between Hindus and Mahomedans is often discussed in Indian society, for there are men still living who assert that this spirit did not exist when they were boys; but, wherever the subject is canvassed, the blame for it is always laid upon English education.

The political opinions of modern India are the resultant of many influences; and it would be ridiculous to ascribe them all to one source or to level a general indictment against them; but English education has probably been the principal cause of the remarkable reversal of Indian tradition regarding the duty of the subject to the State. If those who strive to bring the Government into discredit were aiming at the separation of India from England, their political tactics would be intelligible, but, unless they are to be judged capable of astounding duplicity, this is not an object which they desire. The training they have received offers a partial explanation of their negative views. By our system of secular education they have been cut off from their own traditions and have lost the reverence for authority which was India's solitary contribution to political thought; in its place they have been reared on the teaching of those English individualists who elevated the right of private judgment into a sacred duty, and they profess sole allegiance to the political doctrines of Mill and Herbert Spencer. The consequence has been to minimise in their eyes the importance of constructive politics.

The shortcomings of Indian education might be summarised in four words—Duty is not taught. Now, whatever else we disagree about in England, we are all of one mind that duty, with its correlative, discipline, is the larger and better part of education. The reason why duty is not taught in India is that there is no object of reverence for which duty can be invoked. Religion is forbidden to us by our policy of religious neutrality, and we have not, like the Japanese, found a substitute for it in veneration for the State. The lesson which Englishmen may draw from the experience of secular education in India is that it is not wise to abolish religious education until some substitute for it has been found with which the idea of duty could be associated.—*The Times, London.*

The University of Madras.

NEW REGULATIONS.

Following is the Government Order referring to the final issue and sanction of the new Regulations of the University of Madras:—

By the provisions of Section 25 of the Indian Universities Act, 1904, the Senate of the Madras University are required to cause a revised body of Regulations providing for all matters relating to the University to be prepared and submitted for the sanction of Government within one year from the time the Act comes into force or within such further period as the Government may fix. The Act came into force on the 9th September 1904 and the period of one year referred to expired on the 9th September, 1905. In exercise of the power conferred by Section 26 (1) of the Act the Government thereupon fixed the 31st December 1905 as the date for the submission of the revised Regulations. Before the close of this period, however, the Senate were able to submit only a portion of the Regulations, namely, those relating to internal administration, and they asked for further time till the 31st March 1906 to submit the remainder relating to courses of study and examinations. The request was granted (G.O., No. 854, Educational, dated the 29th December, 1905); but subsequently the Government were advised that it was not within their power to grant this further extension, and that as the revised Regulations had not been submitted by the Senate before the end of December 1905, it devolved upon the Government under the power conferred by Section 26 (2) of the Act to make them. The orders granting the further extension were then modified and the Senate were informed that the Regulations which were still to be framed should be submitted, not as Regulations for the official sanction of the Government, but, as recommendations for their consideration.

2. The Government were also advised that Section 26 of the Act did not appear to contemplate that the Regulations should be submitted to Government, or sanctioned by them piecemeal but only as a whole. The Regulations already submitted relative to internal administration were therefore examined and a few points in them which seemed to require further attention were referred back to the Senate. The remarks of the Senate in reply have now been received as well as certain modified proposals relating to the Registrar of the University. These together with the recommendations as to the remaining Regulations relating to the courses of study and examinations and the rules of affiliation have now been carefully and fully considered by the Government as the short time left to them for deliberation has permitted. If longer time had remained at their disposal, the Government would have wished to refer back to the Senate for further discussion certain important points of principle, the chief of these being the exclusion, from the undergraduate course as a compulsory subject, of the classical and vernacular languages of India, and the important question of requiring students throughout their undergraduate course to specialise, to the extent which the Senate have recommended, the courses of study for the examinations leading to the B A. degree.

3. In promulgating the Regulations it will be advisable to draw attention to some of the more important changes which the new Regulations introduce.

4. Part I deals with the transaction of business by the Senate. The existing by-laws have been amplified and made clearer. Provision has been made for the holding of two ordinary meetings a year instead of one as heretofore and the number of Fellows on whose requisition an extraordinary meeting may be convened has been raised from 6 to 10. The quorum for a meeting of the Senate has also been raised from 9 to 20. The Regulations in this part secure that no decision shall ordinarily be taken without adequate notice and full discussion and that no question shall ordinarily be brought before the Senate which has not been considered by the Syndicate. The existing provision to enable a minority to give formal expression to its views has been retained.

5. Part II relates to the Convocation for the conferring of degrees. Provision has been made for the admission *in absentia* of candidates for degrees who are not resident within the territorial limits of the University or who are precluded from appearing in public.

6. Part III deals with the election and the powers and duties of the Syndicate. The strength of the Syndicate has been fixed at 10 besides the Vice-Chancellor as Chairman and the Director of Public Instruction. There will be no Faculty representation on the Syndicate. The term of office of members of the Syndicate will be raised from one to two years. The Regulations originally submitted by the Senate provided that the whole body of elected members of the Syndicate might be ousted on the Senate's passing a Resolution of want of confidence, provided the Resolution was supported by the majority of two-thirds of the Fellows present and voting at an extraordinary meeting. The Government addressed the Senate indicating reasons for doubting the expediency of such a Regulation as tending to offer adventitious aids to faction, at the same time pointing out that as the term of office of elected members of the Syndicate was only two years, the proposed provision seemed the less necessary. Having considered further the Senate's reasons in support of such a Regulation, the Government are unable to accept them and have accordingly made no Regulation in the terms suggested.

7. Part IV relates to Faculties. The existing have been retained, but a Fellow can in future be assigned only to one Faculty whereas he can be assigned to more than one Faculty under the existing by-laws. The term of office of the President of a Faculty has been fixed at three years and the powers of a Faculty defined.

8. Part V deals with the election of ordinary Fellows by Faculties. This part gives effect to the provisions of Section 6 (1) (b) of the Indian Universities Act, 1904. Regulation 123 is designed to prevent votes being given to a candidate whose election has been disapproved by the Chancellor on the first election.

9. Parts VI and VII provide for the registration of graduates and the election of ordinary Fellows by registered graduates with reference to the provisions of Section 6 (1) (a) of the Act. Regulation 137 as originally framed by

the Senate did not provide completely for the consequences (1) of a tie between two or more candidates, or (2) of the Chancellor's refusing to approve the single candidate standing at the head of a poll. When the attention of the Senate was drawn to the omission they proposed that it should be provided that in the event of a tie the casting vote should be given to the Fellow of longest standing as a graduate among the registered graduates resident in the City of Madras and failing him to a registered graduate nominated by the Syndicate. The Government, however, would prefer that in such contingency the selection should be left to the Chancellor and the Regulation has been framed accordingly. Provision has also been made for a fresh election in the event of the Chancellor's refusing to approve of an election and for the disallowance of votes given at such fresh election in favour of the candidate who has been so disapproved.

10. Parts VIII, IX, X and XI relate to Boards of studies, the University Registrar, Assistant Registrar and Examination Boards. The maximum pay of the Registrar has been raised from Rs. 800 to Rs. 1,000 and provision has been made for granting him leave and pension. In two respects, however, it seemed to Government that the proposals of the Senate in regard to leave were inexpedient, namely, in rendering the Registrar eligible for leave on full pay before completing eleven months' service and in allowing him to combine more than three months' leave with leave on half pay. In the case of leave on full pay the provisions of Chapter XII of the Civil Service Regulations have been made applicable, so far as is possible, consistently with the provision that such leave may be accumulated up to a period of four months, when taken not in conjunction with other leave.

11. Part XII contains a few general Regulations which do not call for special remark.

12. Part XIII deals with the courses of studies, examinations and degrees, of which Section (I) relates to the Matriculation examination. The age for admission to this examination has been fixed at fifteen as proposed by the Senate, a proposal, however, which the Government have accepted with considerable hesitation. The date of the examination has been altered from December to March. No candidate may appear for the examination more than thrice and Elementary Science and History and Geography have been constituted separate subjects.

13. Section (II) of Part XIII deals with the Intermediate examination, and Sections (III) and (IV) with the final examinations for the B.A. degree and the B. A. (Honours) degree, while Section (V) relates to the M. A. degree. As in the case of the Matriculation examination the dates of the Intermediate and the B. A. degree examinations have been altered and a limit has been prescribed as to the number of times candidates may appear at the examinations. The scheme proposed by the Senate for the Intermediate and final examinations for the B. A. degree entirely changes the character of those examinations, while a separate course for the B. A. (Honours) degree examination has been newly instituted and the examination for the M. A. degree abolished, that degree being reserved for graduates in Honours without further examination. The course of

study for the intermediate and the final B. A. and B. A. (Honours) degree examinations have been recommended by the Senate "on the principle that an improved knowledge of English as a spoken and written language is the chief need of the average Madras student. Such greater acquaintance it is deemed impossible to combine with the wide scope of the present courses for the Matriculation and First Arts. These are generally, if not universally, felt to be unsatisfactory and by their very breadth, to create a low standard. The narrower range now suggested implies as its correlative a higher standard within that range. With the same object of making the undergraduate's studies more thorough it is proposed to identify the Intermediate course more closely than at present with that for the degree, to bridge so far as possible the existing hiatus, and to provide the student from Matriculation to B. A. with a continuous and congruent system in "English and certain optional subjects." In the Regulations as submitted by the Senate English is the only compulsory subject for the Intermediate and final examinations for the B. A. degree, the remaining subjects to be studied being formed into optional groups, only one optional group being compulsory in addition to English.

The first remark to which these proposals give rise is that they totally exclude the classical and vernacular languages of the country as compulsory subjects. The neglect of these languages by the ordinary University graduate of the present day is notorious. It appears to the Government that, if those who have secured a University education are to do the best for the country with the education they have received, it is imperative that they should preserve a sound knowledge of the vernaculars. With this in view and in order that a student may not be led to put aside the study of his mother tongue a Regulation has been introduced providing as a compulsory subject in the Intermediate examination for the B. A. degree, composition in a vernacular. A similar provision appears in the new Regulations of the Calcutta University and there the test is made compulsory also at the final examination for the degree. The Government do not propose to insist upon this at present in view of the onerous character of the examinations in the courses of study prescribed for that examination. Since this subject was under the consideration of the Government, they have received several influentially signed memorials from different parts of the Presidency advocating strongly the retention of the study of the vernacular in the undergraduate course. In the case of the few students who are Europeans and Eurasians, some difficulty arises from the fact that the test under this Head (II) will to some extent duplicate one of the subjects under Head-I-English, but the test even in their case will be an independent test in which a minimum number of marks will be required.

Another question of great importance is whether the courses of study proposed for undergraduates from the time they pass the Matriculation examination is not of too highly specialised a character. The age of Matriculation has been fixed at 15, and though doubtless the average age is higher, it is a serious question whether a more general plan of study would not be better adapted to the youth of the students, and the circumstances of education in the country, at

any rate during the first two years of undergraduate study, specialisation commencing after passing the Intermediate examination; and thus securing for these young men a wider survey of the field of knowledge before settling down to cultivate one restricted portion of it. The courses proposed for the undergraduate examinations have been, however, so fitted and adapted to the specialised plan of study as not to admit of easy alteration without reconstituting the whole scheme of studies. It is now too late, so far as the present Regulations are concerned, to submit the matter for further discussion, or to undertake the task of revision, if that course were approved. In these circumstances the Government have accepted *en bloc* the Senate's recommendations as to the courses of study.

14. Section (VI) of part XIII deals with the examination for the degree of Licentiate in Teaching. The Senate intend shortly, it is understood, to submit proposals for the revision of the Regulations relating to this degree.

15. Section (VII) of Part XIII deals with the examinations for the degree of Bachelor of Laws and Section VIII with the examination for the Master of Laws, while Section (IX) relates to the degree of Doctor of Laws. The date of the First examination in Law and of the B. L. and M. L. degree examinations has been altered from December and January to April. There is no change of any importance in the Regulations for these two degrees.

Section (IX) instituting the degree of Doctor of Laws by examinations has been newly inserted, as recommended by the Senate.

16. Sections (X), (XI) and (XII) of part XIII deal with the examinations for the degree of Licentiate in Medicine and Surgery, of Bachelor of Medicine and Master of Surgery, and of Doctor of Medicine, while Section (XIII) relates to the degree of Licentiate in Sanitary Science.

The only alteration of importance in the scheme of examinations for the degree of Licentiate in Medicine and Surgery is the transfer of Practical Pharmacy and Medical Jurisprudence from the subjects for the First L. M. and S. and the Second L. M. and S. to those for the Second L. M. and S. and the Final L. M. and S. respectively, and of Minor Surgery from the subjects for the Second L. M. and S. to those for the First L. M. and S.

In the scheme of examinations for the degree of Bachelor of Medicine and Master of Surgery, the syllabuses in Chemistry, Physics and Biology for the First M. B. and C. M. examination have been slightly altered, a syllabus has been prescribed in Organic Chemistry for the Second M. B. and C. M., the course for the Third M. B. and C. M. has been raised from one to two years, and Medicine, Surgery, Midwifery, Medical Jurisprudence, Ophthalmology and Mental diseases have been omitted from the subjects for the Third M. B. and C. M., and added to those for the Final M. B. and C. M. A provision has also been inserted to the effect that candidates failing to obtain the minimum number of marks prescribed for the Final M. B. and C. M. may be declared to have passed the Final L. M. and S. if they obtain the minimum prescribed for that examination.

In the examination for the degree of Licentiate in Sanitary Science slight alterations have been made in the list of subjects, the syllabus under Vital Statistics has been recast and the syllabus under General Pathology has been enlarged.

17. Section (XIV) deals with the examinations for the degree of Bachelor of Engineering. The dates of these examinations also have been altered to April. The course of study has been raised from 30 months to three years, the former period being too short for a course to qualify for a degree in so important a professional subject of study.

18. The rules for the affiliation of Colleges have been revised and brought into conformity with the new Act.

19. These are the main features of the revised Regulations as recommended by the Senate and accepted by Government.

The Regulations, as now made by Government under Sub-Section (2) of Section 26 of the Indian Universities Act VIII of 1904, are printed as an appendix to this order, and will be published in the *Fort St. George Gazette*.

Music By Electricity.

In the *Windsor* appears the story of the dynamophone, "an electrical invention for producing scientifically perfect music." Its inventor, Dr. Thaddeus Cahill, has made, after years of constant invention and combination, a machine costing some £ 40,000 for the creation and supply of music. He avails himself of Helmholtz's analysis of different musical tones; to the pure tone he adds harmonies of various vibrations, until he can reproduce the sound of the violin, the flute, the cells, the fife &c. The present instrument has 145 alternators. He combines the currents from various alternators in what he calls tone-mixers, where the various vibrations carried on wires are combined. The machine itself is silent, except that there is much noise about. The electrical vibrations are by telephone transmitters turned into vibrations of the air. Sound is thus entirely at the disposal of the executant who is no longer at the mercy of the varying vibrations of violin or piano strings. The machine perfectly responds to the skill and emotion of the player, so that his individuality is not destroyed. The supply of music is very wide: "with its wires spreading in every direction, not only in the streets of cities and into city homes, but by means of a system of long distance transmission, even now quite feasible, the best music may be delivered at towns, villages, and even farmhouses a hundred miles or more from the central station. Small country churches, town halls, schools, at present holding up no ideals of really good music may be provided with the same high class selections that are daily produced by the most skilful players in the cities".

The Madras College of Agriculture.

In its Resolution on the Reports on the working of the College of Agriculture at Saidapet, the farm and the botanical garden attached thereto, during the official year 1905-06, the Board of Revenue remarks:—

The Board notes that the College had to work without a Professor of Agriculture throughout the year under review, and that, from the 22nd January, 1906, when Mr. Kees went on leave, the Acting First Assistant was in charge of the College without prejudice to his duties as lecturer on veterinary subjects, or to his supervision of the College farm and botanical gardens. Mr. D'Silva has in the opinion of the Board done excellent work in difficult circumstances. The number of students fell off from 58 in the previous year to 31 in the year under review, owing to the non-recruitment of students in January, 1906. It is clear, however, that, in spite of the reduction in the teaching staff, a large number of students of good educational attainments might have been obtained. This was not the case in former years. The results of the labours of the College, as gauged by the examination results were better than in previous years, and a satisfactory result is probably ascribable to the revision of the College curriculum made in 1902. The fact that two-thirds of the candidates passed in the major and final subjects is significant, especially when it is remembered that under the revised curriculum all candidates must get through the minor subjects first. The Veterinary hospital attached to the College continued to work satisfactorily, though the officer in charge had to discharge, in addition, the duties of Vice-Principal of the College throughout the year, as well as those of Principal during the latter part of it. The increase in cattle practice was a specially satisfactory feature of the year's work.

The Director of Public Instruction, the Hon'ble Dr. Bourne, wrote:—

The disadvantages under which the College laboured, disadvantages incidental to the fact that radical changes were under consideration, were unfortunately accentuated by the ill-health of the Principal, which made it necessary for him to take leave on medical certificate and proceed to England at very short notice. The Director considers that Mr. D'Silva and his colleagues deserve great credit for their success in preventing the work of the students left in the College from suffering on account of the reduction of the staff. The control of the Director of Public Instruction over the College, which has obtained in a greater or less measure since 1876, came to an end with the close of the year under report. The control has almost inevitably led to the tendency to give prominence to the more or less purely scientific subjects, to the detriment of the training in practical agriculture. The absence until recent years of any widespread demand for such training has led the College to attempt to justify its existence as an educational institution of a collegiate grade by admitting students who would have better obtained the instruction they required elsewhere. A scrutiny of the list of old students shows, however, that many of them are or have been engaged directly or indirectly with agricultural pursuits both in this Presidency and in other parts of India. The labours of this College in the past have undoubtedly contributed to the increased attention which is now being paid by public to the development of agriculture.

The Fergusson College, Poona.

PRESENTATION OF A LIBRARY.

The Poona correspondent of the *Advocate of India*, wrote on the 5th instant:—The story of this College is well known. It is a standing proof that the people of the country can successfully manage their own educational institutions. The College is situated at the foot almost of Chattraisinghi, between that eminence and the City of Poona, on one of the breeziest and healthiest spots obtainable. The Fergusson College was founded under the auspices of the Deccan Education Society, and is recognised by the Bombay University in the whole faculty of arts. It is the outcome of the labours of a few Indian gentlemen, of whom the Hon'ble Mr. G. K. Gokhale was the most prominent, who raised the funds, and gave their services for a large portion of their time as teachers. The whole place is admirably arranged to meet its requirements, and is beautifully clean and bright and cheerful. The meeting this afternoon was in the spacious lecture room, a fine lofty hall 80 feet by 23 feet with large side rooms attached. In one of these was placed in some dozen cases the valuable, and rare library of the late Rao Saheb V. N. Mandlik, M. A., for many years one of the leading legal lights of Bombay, and one of its most generous citizens. At his death his vast library contained many valuable Sanskrit manuscripts; Sanskrit and other books old blue books relating to India; Hansard's Parliamentary debates; and a host of works of a miscellaneous character. Then there are books with legal lore brimful; Indian Cokes upon Lyttletons, and somebody else on top of the last-named, forming altogether a field of research sufficient to delight the eye and mind of the most ardent bookworm, and him whose dictum always is "it is written." One gazes among those ponderous tomes and as Charles Lamb once said of the Bodleian, one almost seems to inhale learning there. One pictures the student "sicklied o'er with the pale cast of thought," browsing amid these labours of a dead past, "lean men think o' nights," poring over what Thomas Carlyle once not inaptly described as "learned marine stores." The Hon'ble Mr. E. M. H. Fulton, preceded by the Principal and accompanied by Mr. F. G. Selby, the Hon'ble Dr. Bhandarkar, the Hon'ble Sardar Naorojee Pudemjee, the Chief of Miraj, the son of the Chief Bhoe, and Mr. N. V. Mandlik, proceeded down the Hall and opened the Library with a silver key amid applause.

Improvement of Secondary Education.

At the meeting of the Senate of the Calcutta University, which is to be held on the 26th instant, the Syndicate will request that a Committee of the Senate be appointed to consider the question of the general improvement of Secondary education throughout India and to report what measures should be adopted to improve that grade of education in Bengal. This step is due to a letter from the Government of India to the Bengal Government in which the views of the former were set forth. In their letter the Government of India make five sug-

gestions bearing on the standard of improvement to be aimed at. In the first of these there is an evident recollection of the excellent work done in the Bombay Presidency and the United Provinces by the Government High Schools which have so long been established in those parts. Accordingly the weight of Government authority is given to the suggestion that there should be a Government High School in each District. In Bombay the Headmasters of these schools are members of the Indian Educational Service and are eligible for Inspectorships. This is as it should be. It is essential that the Headmasters should be contented with their pay and prospects. In no other way can the right stamp of men be attracted to the work. The work of the Inspector of Schools would seem to demand some acquaintance with school methods, and some experience as a Headmaster. The second suggestion put forward in the Government of India's letter has reference to the general standard of qualification for teachers in the Government High Schools. The Government of India would define the standard to be sought by saying that for the vernacular classes there should be trained vernacular teachers: and for other classes, graduates or trained men who are not graduates. No teachers should be employed in the Anglo-Vernacular classes who are neither graduates nor trained in Anglo-Vernacular Colleges. A proportion of the staff should be trained graduates. This is excellent, as far as it goes, but Madras has long been ahead of this very modest standard. In that Presidency a standard of training is aimed at for all teachers whether they are graduates or not, and this is ensured for aided schools by a proviso in the Grant-in-Aid Code. The third recommendation deals with the pay of teachers and lays down that the pay of teachers should be so fixed as to command the services of men having these qualifications, and should in fact suffice to attract a fair stamp of graduates. The next recommendation is that the equipment of the schools should be improved where necessary, and, if science is taught, that the apparatus should be of a kind to enable the students to take part in some practical work. It is a rather severe commentary on the state of education that such a recommendation should be necessary, but that it is necessary no competent person can deny. Having dealt with the provisions necessary to be made for efficient instruction the letter next touches on the moral and physical welfare of the pupils and recommends that hostel accommodation should be provided for all the boys who do not reside with their parents or guardians, and that the hostels should be under supervision of responsible resident members of the teaching staff. This will have the approval of all who know under what difficult and trying circumstances the Indian pupil too often pursues his studies. An efficient hostel system is one of the greatest aids to education, and it is indeed encouraging to find this so clearly and unhesitatingly laid down.—*The Englishman*.

The Indian Industrial Conference.

IN DECEMBER the second Annual Industrial Conference held its sitting in the Congress pandal at Calcutta. It was attended by an immensely large gathering, the fact that His Highness the Gaekwar of Baroda was to open

the Conference with an inaugural Address, having proved a special attraction. The Conference was attended by Mr. Dadabhai Naoroji and a large number of influential Indian Gentlemen. His Highness having taken his seat, Mr. P. M. Bose, Chairman of the Reception Committee of the Industrial Conference, read an Address of Welcome, in which he gave an account of the economic and industrial situation of the country and pointed out that a great deal remained to be done by the people themselves in the matter of industrial development.

His Highness the Gaekwar then delivered his inaugural Address.

After a brief survey of the industrial history of India from the earliest times, His Highness, referred to the triumph of the power loom industry and the rapid expansion of cotton production. India had less than 4,000 power looms 40 years ago, but the number was over 47,000 in 1904; she had less than 300,000 spindles 40 years ago and the number exceeded 5,000,000 in 1904; but they were still only at the threshold. He did not minimise the difficulties. The old ways must be abandoned, and modern knowledge and skill must be acquired and applied. Under those conditions only would Swadeshism be a genuine economic force. The sugar industry and the Madras tanning industry furnished pitiable instances of the defeat of India by modern methods of production and manufacture.

His Highness then turned to the mineral resources of the country, referring to Mr. Tata's great iron schemes, and to the expansion of the Bengal coal industry. He pointed out that, notwithstanding the growth of larger industries, the labourers employed in them formed only an insignificant proportion of the industrial population. India was, and would long remain, a country of cottage industries.

After speaking appreciatively of the annual Exhibition and the work of the first Industrial Conference, His Highness made a few practical suggestions derived from his own experience. He had endeavoured to introduce compulsory education in Baroda and, the measure had worked with a satisfactory result in one part of the State for a number of years, and emboldened by the success of the experiment, he had decided to make Primary education compulsory throughout the State and absolutely free. Of scarcely less importance was the need for industrial education. It had undergone a complete revolution in the West, and of all the countries he had recently visited he had found its highest development in the United States. His suggestion was that, besides establishing technical schools, they should endeavour to introduce manual training. India must send her young men to Europe, America and Japan. Nothing had impressed him more on his return than the changed attitude of his countermen towards foreign institutions. India to-day was at the parting of the ways, and there were great possibilities before her.

In conclusion, the Gaekwar, said that he would not for a moment have them think that he had returned from the West a convert to Western ideals, or in any sense a pessimist concerning the future of India. No one could visit great commercial centres without feeling that the air was surcharged with the

miasmatic spirit of greed. It might be the mission of India by the philosophic simplicity of her ethical code to solve problems which had baffled the best minds of the past: to build a sound economic policy along modern scientific lines, and at the same time preserve the simplicity, the dignity, the ethical and spiritual fervour of her people. He could conceive of no loftier mission for India than this, to teach philosophy to the West and learn its science; to impart purity of life to Europe and attain her loftier political ideal; to inculcate spirituality to the American mind and imbi the business ways of its merchants.

The Address was repeatedly cheered, and was voted on all hands a masterpiece of its kind, full of information, at once valuable and interesting, evidencing His Highness's shrewd powers of observation and varied experience. Specially interesting to the audience was the account the Gaekwar gave of what he saw of industrial progress during his recent tour in the West.—*The Madras Mail*.

Occasional Notes.

FOREIGN.

A FIRST READER IN THE VERNACULAR.

There has been much discussion as to the material features of a first reader. We would suggest that the following are the essentials. Above all things, the book must be easy, without anything technical in it. It should be well printed. It should also be moderate in compass, its subject matter should be interesting, and as far as possible form a continuous story. It should indicate the main outlines of the form of the language, avoiding all irregularities as far as possible. Such a book would be ideal. Needless to say it has still to be written.

* * * * *

Over-investigation seems to be the order of the day in Ireland. There have been so many royal commissions in recent years and so little action has followed the reports of the commissions that no one now-a-days pays much attention to them. Trinity College, Dublin, which has had an illustrious past, and which need fear no comparison with Oxford or Cambridge, is the subject of enquiry by the last Royal Commission. A portion of the report has already been published and deals with changes necessary in the internal affairs of the college to meet the requirements of present day needs.

HOME LESSONS.

There is much that may be said in favour of home lessons. They induce self-activity and economise time in school for other things. Again, the pursuits of school are made a personal business instead of their being associated with the class room only; and the parents may be brought round to the same interested point of view. And it is the parents upon whom success largely depends. They see what work is to be done, and can give their children the opportunity of doing it honestly by themselves. At the same time the setting of home lessons may become a serious evil. The hours of work may be made too long,

especially in the case of younger boys. In the most elementary stages it is inadvisable to set any home lessons at all, as the teacher's oversight is essential in these stages and as the work of very young children should be extremely light.

NAPOLEON AND EDUCATION.

It is interesting to notice that the great soldier was not oblivious of the importance of Education. "National Education was another subject to which Napoleon turned his thoughts at this time (1802). The instruction of the people under the Bourbon Monarchy had been for the most part left to the church; and in France, as generally throughout the Continent, the humbler classes had grown up in ignorance. The National Assembly had sought to apply a remedy to this state of things, and it had decreed that every Commune should support a school in order to teach the first rudiments. This project, however, had not been carried out in a period of anarchy and of war with Europe; it never had a chance of success, and the Consulate found many Communes bankrupt, and the rising generation of young Frenchmen drawn off into the life of the camp. The first Consul did a good deal for elementary education even in these circumstances: but the Communes were not taxed for primary schools, and the experiment, indeed, would have been a failure. He made great efforts, however, to promote higher education in different ways; he endowed a number of secondary schools, in which sons of the middle classes were carefully brought up; he established excellent special schools to advance the military and other arts, and he founded a University some years afterwards, which has had many eminent names in letters and science, though it was far too much a dependency of the state." [Heroes of the Nations.]

GRAMMAR TEACHING.

Much discussion is heard as to the amount of grammar which the average boy in a Secondary school should learn, and what methods should be adopted in teaching it. We will give our own views on this head briefly, without entering into the arguments used by the champions of the various methods. In our opinion there is a grave danger of overdoing the direct method so called. In all language teaching some grammar must be infallibly known. For intelligible expression certain universal forms of speech must be mastered, whether in vernacular teaching or in the study of English. Elementary notions as to case-formations, gender, number, verbs, and the simple sentence should be known and the meaning of the existence of these forms and of the functions of the various parts of speech should be explained. Philology and Etymology should be avoided, though derivations may be given where they are interesting and may prove helpful to the understanding of the word. Irregularities should be avoided as far as possible; and examination papers should not demand a knowledge of them and so waste valuable time. Broadly speaking, two methods may be adopted in grammar teaching, both of a logical nature. Instances of some formation may be noticed in connection with the reader and these may be collected and so a rule may be arrived at: similarly by the help of many examples.

the function of an adjective may be understood. Or, on the other hand, a general statement may be made at the outset and as examples illustrating the statement occur they may be noticed. In all grammar teaching it is of the highest importance that the teaching should not be merely dogmatic. The meaning or the function of a word should as far as possible be understood. Grammar then and then only ceases to be dull, boys take a greater interest in what they understand and see to be reasonable: and it is a mistake to suppose that the average boy in a Secondary school cannot see the reasons for grammatical formation. If he fails to see them, the fault generally lies with the teacher.

SIR WILLIAM WHITE ON TECHNICAL EDUCATION.

At the Trades Training Schools.

The annual distribution of medals, prizes, and certificates to the successful students at the Trades Training schools, 153, Great Titchfield Street, took place at the Carpenters' hall, London-wall, the presentations being made by Sir William H. White.

The latter in addressing the students, said that the other evening he had the opportunity of going through the schools in Great Titchfield Street and seeing the work that was being done. He knew something about handicrafts, for he had been an apprentice himself. Consequently he could enter more fully, perhaps, than some others into the character and value of what went on in the various classes. That was particularly true of those classes which took up work in wood and in metal and his testimony was this—that, having visited a good many technological classes in different institutions, not only in England, but in different countries, he had never seen any system which was superior for its intended purpose to that at Great Titchfield-street. The students in the schools were engaged in attempting to perfect themselves in those trades and crafts in which they were daily engaged, and that was a very fine thing. He believed that the direct teaching of the higher branches of handicraft was important from the point of view of its bearing on the future of British industry. He was not decrying technical education on the side of book-learning, as it was commonly called. He thoroughly believed in it. If a workman never got beyond being a workman he was all the better for having that sort of knowledge but it was to be feared that sometimes, in the struggle to prepare students for examinations upon the results of which prizes and grants depended, what he might call the "weightier matters of the law" were overlooked. There was a danger of knowledge being tested by the memory of what we found in books. Knowledge, unless it was assimilated and the real meaning of the thing mastered, was apt to be only superficial and even evanescent. He knew some men who had won great distinction in the older Universities, but who a few years afterwards had lost touch of the knowledge which had gained them their degrees. He wished "God-speed" with all his heart to the form of instruction which had been set up by the Carpenters' Company and the other Companies associated with them in their work at Great Titchfield Street and elsewhere. The City

Companies were showing that they recognised their duties and responsibilities in a very practical way in helping forward everything that made for the encouragement of British industry and the training of British workmen, and so long as they continued to do that he felt confident there would be no interference with them.

* * * * *

THE SEXES COMPARED. IN THE UNITED STATES.

Tests have been made at Columbia University to determine the comparative mental ability of men and women students. The investigations, which have extended over four years, show that women are superior in visual memory, in the rate of perception, and in size of the head, auditory memory, time of association, speed of movement, and perception of size. The sexes were proved to be practically equal in perception of weight, logical memory, and ability to endure fatigue. It was found that those who passed best in psychological tests did best in their studies. Memory seemed to have little to do with class standing. The experiments showed that 50 per cent. of the freshmen were subject to hallucinations, and that many cases of hallucinations continued throughout the College course. They consisted mostly of imaginary voices. One student reported that while alone he had heard his mother's voice from a distance of 1,500 miles, besides the voices of friends conversing and also calling him. Another reported that whenever he heard a piano being played, he also heard his mother's voice.

JUVENILE CRIME.

The *Outlook* August 4th has a timely article on the causes of juvenile crime. The author, Mr. Adams, knows whereof he writes. From the standpoint of social conditions, Mr. Adams places the following causes of juvenile delinquency:

- "1. Lack of proper home restraint and training.
- "2. The habit of truancy.
- "3. Lack of proper outlet for normal physical activities.
- "4. Social training in disregard for law and order.

"The lack of proper home restraint and training is proved to be the cause of such a large proportion of juvenile delinquency that it can easily be placed as one of the leading causes.

"Another cause that works with woeful certainty is the habit of truancy. The school must at least complete the training of the home, and in some districts it is compelled to supply it. When attendance at school becomes irregular and the street gains control or direction of the child's activities, the break with all that is good in the child's standard of living is close at hand.

"The truant child, however, begins early to throw off the authority of the school. Irregularities, excused at first by teachers and principals, soon become absences, and he gradually drifts away. The overworked truant officer can

follow up only a few of these children at a time, and in those cases where the reported absences are entirely neglected, the child has learned to disregard and eventually to disrespect the law.

"The result is that the truant subsequently finds no interest in the school and naturally transfers his real interest to some other pursuit. During the school hours those who would prove the best companions are not to be found on the street, while those who are most shiftless and worthless among the older boys are to be found on the street corners, in the vacant lots or mysterious candy-stores. The truant's interests become common with those of a semi-vagrant class who have been born of similar conditions. Gambling, smoking, dime-novel reading, and lastly the organized depredations of the criminal gangs, are the natural outcome of such companionship. Repeated arrests, with immunity from punishment, have often made of such a boy a hero among his kind, and have secured him the position of a recognized leader.

"This defiance of the compulsory school attendance law is the first step in a long line of offences, the culmination of which is hard to determine. The effect of the breaking down of this authority enters into almost every relation between the boy and society. A probation officer in the city of Chicago, who was familiar with the causes that brought children before the juvenile courts, said of the court in which he worked that almost every case he had had in that court 'had its real beginning in truancy.'

"The lack of proper places in which to play has worked sad havoc among the children of the city. It has taken from them their natural and lawful heritage, where the activities of the child life may find employment, and has given them nothing in its place. In the city, energy developed by the normal boy is diverted into channels foreign to its original purpose, channels whose tendency toward mischief and eventually toward crime seem to have been disastrous."

"The small part that heredity plays as compared with environment is shown in the fact that there is unanimous consent among those who have to do with the placing out of children that if a child can be established in a good home before he is ten years of age he almost invariably acquires the characteristics of the people among whom he lives.

"The laws of the last few years directed along the line of prevention have been numerous and positive. The child labor laws, which prevent the exploitation and provide for the education of the child, may seem at times to have worked a hardship to the family, but they have invariably stood for the best interests of the child. Tenement-house laws, demanding better housing conditions; more effective sanitary laws, requiring the examination and improvement of the home; health laws which secure proper care for the incapacitated—all these have tended toward the diminution of juvenile crime, for back of all there has been a social conscience which has not merely expressed itself in laws, but has made its demands an education for those who were partly responsible for crime's existence.

"Outside of law the constructive efforts have been still more direct and continually on the increase. The work done to render the school more attractive is one of great importance in congested city districts where school-houses have been opened at all times for those who needed recreational as well as educational advantages. Playgrounds and parks, giving an opportunity for the expression of legitimate activities, have almost revolutionized certain districts. Settlement clubs and church clubs have exercised a constructive influence little understood by the general public."

Occasional Notes.

INDIAN.

The Director of Public Instruction, Madras, has ruled that Sub-Assistant Inspectors of Muhammadan schools should confine their work to the inspection and examination of Muhammadan primary schools in which Hindustani is the medium of instruction. The other Muhammadan primary schools in which a South Indian Vernacular is taught as first language will be under the local Sub-Assistant Inspectors, who will, however, consult the Muhammadan Sub-Assistant Inspectors concerned and be guided by them in matters requiring their expert opinion.

The Director of Public Instruction in the Punjab will call a Public Meeting to discuss the question of the establishment of a Central Library for Lahore, and consolidating therein three important Public Libraries which already exist in the city. These are contemplating the early expenditure of considerable sums on new books. Madras has in this respect taken the lead which the Punjab might well follow.

We very much regret to learn that the S. P. G. Authorities have decided to close from January 1903 the college classes of the St. Pater's College, Tanjore. It has been doing useful work for over a century and it reached the zenith of its prosperity during the regime of a former Principal Dr. Marsh, who has left an imperishable name behind him in Southern India. Its present Principal the Rev. W. H. Blake, always known to be an earnest but quiet and unostentatious educationist, has, we learn, recommended this step in view of the rigorous conditions imposed by the new University Regulations.

We are very happy to observe that H. H. The Amir of Afghanistan has taken a most liberal and sensible view of the influence of Western education. At the Aligarh College he is reported to have said: "We have opened a College in Afghanistan, called the Habibya College, and we have permitted Western knowledge to be taught there, so that the students may be perfect Mussalmans." These are words of wisdom indeed. He has clearly recognised the value of Western culture and learning in the making of "perfect Mussalmans." These

words of the Amir ought to stimulate the Mahomedans of India to profit more extensively by the education imparted in our schools and colleges.

* * *

The Maharajah's College, Trivandrum, has recently been equipped with a new Physics Laboratory. H. H. The Maharajah presided at the opening ceremony. Dr. Mitchell, the Principal, read a brief account of the progress of the College and dwelt on the importance of the Physics chair in its relation to Mathematics and Science. The Honourable Mr. R. C. C. Carr made a very humorous speech, extolling Dr. Mitchell's enthusiasm. The Maharajah then declared the Laboratory and Physics chair open. The interesting ceremony was brought to a close with the inspection of the hall and Laboratory by those present.

* * *

Third Annual Teachers' Institute and Demonstration by the teachers of the Olcott Panchama Free schools held under the Direction of Mr. Arthur Mayhew, B.A., Inspector of schools, Third Circle. (With the permission of Mrs. N. A. Courtright, Superintendent of the Schools.)

THROUGHOUT the year the Teachers of the Olcott Panchama Free Schools meet one half-day a week for special training under the supervision of the Superintendent. And once a year a Teachers' Institute is held in which the results of the year's training are demonstrated by the Teachers in a series of model lessons extending over the period of a week. This is also the occasion for criticism of results and discussion of plans for the coming year.

For some time past the weekly classes have been visited by Teachers from other schools and by Inspecting Officers who have been anxious to see the practical application of new methods. The last annual Institute was attended by a large number of Inspecting Officers and Teachers who were undoubtedly stimulated and inspired by what they saw and heard. They on their part offered criticism and suggestions which were discussed with animation. The classes were undoubtedly enjoyable and interesting, and it is believed that they were profitable both to the Teachers taking part and the Spectators.

It will be observed from the title of this note that the Education Department is taking an active part in the conduct of this year's annual meeting. This active co-operation is in accordance with the spirit of rule 20 of the Madras Educational Rules (5th Edition): "The course of studies should be arranged and the time-table drawn up in consultation with the Inspecting Officer." Managers of Elementary Schools have been freed from the fetters of the old curriculum and are now encouraged to frame for themselves a new curriculum specially adapted to local conditions and the class of pupils for whom the school is intended. The framing of such a curriculum is a subject that has for a long time been engaging the attention of the Superintendent and Teachers of these schools. Consequently they are now in a position to show us how they intend to use the freedom that has been granted. It will be the duty of Inspecting Officers who may be present to consider how far the courses followed and the methods employed (i) are based on principles that must hold good for all kinds of education in all kinds of schools; (ii) are peculiarly adapted to this parti-

cular kind of Pariah School. They will then be in a position to offer such criticism and advice as may seem proper. Those Managers and Teachers of other schools who attend the course will have an opportunity of gaining ideas which may be helpful to them in framing a course for their own schools. And Managers, Teachers and Inspecting Officers alike will, it is hoped, derive from the meeting some notion of a mutual co-operation between Managers and Department that will be profitable to the course of education.

The general principles on which the work to be exhibited in this Institute is based and the special way in which it is adapted to the pupils for whom the schools are intended are clearly set forth in the pamphlet. "How we teach the Pariah" (Third edition—price 2 annas), which should be carefully perused by all who attend the course. It is in no way the desire of those who are conducting the Institute that everything which is done in these schools should be faithfully imitated in other schools. Such a desire would be in direct opposition to the spirit of the new Education Rules. Moreover, it must be remembered that those who are responsible for the conduct of these schools have openly stated "when we measure these schools not by what we have so far been able to accomplish but by what it is possible to attain, we are still far from satisfied." But it is impossible for those who have watched the progress of these schools not to feel that the manner in which they are conducted is an excellent example and a most potent stimulant to all who are responsible for the efficiency of schools. It will not be the fault of the Teachers or Superintendent if the Institute fails to be profitable to all who are able to attend it.

* * *

THE VICEROY ON THE EFFECTS OF EDUCATION IN INDIA.

His excellency the Viceroy addressing the Deputation of chiefs, Nobles, Taluqdars and Jaghirdars which met him at Agra on 10th instant, spoke as follows:—

"I hope that we, as part of the great assemblage gathered here, may share in contributing another brilliant page to the history of Agra. Your Highness, the address with which you have presented me impresses upon me the efforts your Association is making for social reform and the diffusion of knowledge. It is very true that western sciences and culture, and more important still, western rays of thought are making themselves felt throughout India, and I hope that British Rule may assist the people of India to direct into the most profitable channels the many influences which must so momentously affect their future. The old days of ignorance and slavery to custom have gone for ever. A new life has, I hope, come into being, but it will assuredly bring with it fresh difficulties and problems unknown to the people, which altered social conditions can alone satisfactorily solve. Your Princes and Chiefs have, I know, done much by the encouragement of education and social reforms to fit the community for that share in the public life of the country which should be the highest ambition of any man. You may well be proud of your Rajput history."

. . .

In England the great event of the month has been the conflict between the two Houses which has ended in the destruction of the "Education Bill." It is a matter of regret that no settlement was arrived at and it is difficult to absolve the Liberals from all blame in view of the conciliatory attitude of the Archbishop of Canterbury and Lord Landsdowne.

* * *

In America, an awkward situation has arisen, owing to the refusal of the authorities at San Francisco to admit the Japanese into the ordinary schools. The pretext of the Japanese Government has been energetically supported by the President, and it will be interesting to see what happens. From a constitutional point of view it is difficult to see how the President can compel the San Francisco authorities to yield. A serious situation may easily be developed if they remain firm.

* * *

H. H. THE MAHARAJAH OF MYSORE ON INDUSTRIAL EDUCATION.

On the occasion of the deputation of the Association for the Advancement of Scientific and Industrial Education, Calcutta, to the Maharaja of Mysore, His Highness made the following reply:—Gentlemen, it is highly gratifying to me to receive this address from representatives of the intellect, culture and public spirit of the metropolis of the Empire. I well remember how deep and universal was the feeling of sorrow and sympathy raised among all classes when my beloved father died here suddenly twelve years ago. Your sympathy went a great way to mitigate the sense of loss and sorrow. I thank you sincerely for the kind and appreciative terms in which you have been pleased to speak of myself and my Government. I have endeavoured to follow in the footsteps of my dear father, and the Government is being conducted mainly on the lines laid down by him. We have from the commencement been giving special attention to the revival of industries, and the promotion of industrial and technical education in the State, and you can well understand how gratified and interested I feel in hearing of what is being done towards the same object in this part of India. There has been an awakening all over this great continent regarding the urgent need that exists for recovering our lost ground in the matter of industries and commerce, and all those who take a true interest in the well-being of the country cannot but rejoice at the signs of revival that are noticeable on all sides. Your plan for promoting industries and technical education appears to proceed on sound lines, and I need not assure you that I shall watch the progress of your patriotic scheme with deep interest. As a small token of my appreciation of your efforts, I hope you will allow me to offer a donation of Rs. 3000 to be utilised for any scholarship which may commend itself to the Association. Allow me to thank you once more for the kind welcome you have accorded to me."—*The Madras Mail*.

A visit was recently paid to the Teacher's College, Saidapet, and Government Training College by Mr. Griffiths, one of a number of gentlemen who have been entrusted by the Government with the formation of the Training Colleges shortly to be opened in Bengal. It is a work in which all will wish him and his colleagues success: and we hope to hear later, and to give to our readers a report of the progress of the work.

GEOMETRY TEACHING.

We have received the following communication addressed to the Secretary to the Government of Madras in the Education Department by Mr. S. Rajagopalachari, B.A., Assistant Master, Pachaiyappa's College, and make extracts therefrom:—

1. For the last 30 years pupils in this country were learning Theoretical Geometry in ordinary schools (the basis of instruction being Euclid) and Practical Geometry in the School of Arts and other Technical Schools (the basis of instruction being various Text Books). The Senate of the Madras University by its recent regulations has removed this distinction and further removed Euclid as a subject of study and substituted in vague terms "Geometry Practical and Theoretical" in its place and has drawn up a syllabus. The Senate has thus effected a reform in this country which continues even to-day an unaccomplished fact in England after 30 years' agitation.

2. In England an agitation for the reform of School teaching was started first by the Association for the Advancement of Science in 1860 and secondly by the Association for the Improvement of Geometrical teaching in 1871. In 1881 the Association widened its basis so as to include all branches of Elementary Mathematics and eventually in 1894 the name was changed into the Mathematical Association. The Geometrical Association made repeated but ineffectual attempts to persuade University authorities to permit departures from Euclid's sequence. De Morgan, Lewis Carroll and Cayley openly avowed their preference for Euclid. The British Association was unable to carry out any reforms. The development of Engineering and particularly of the electrical branches necessitated the training of a body of students quick in action and decision. Perry's crusade against Euclid began in 1901 at the Glasgow meeting; still the Universities were reluctant to make changes. As there seems to be some misapprehension as to the nature of that agitation started by Professor Perry, I beg leave to point out the result of that discussion on the teaching of Mathematics. Out of 18 speakers who took part in that discussion 11 referred to the subject of Euclid, no less than six were in favour of retaining Euclid, only 4 were against it. Various syllabuses as are at present recommended by the Senate of the Madras University had been recommended by various authorities with what results the following quotations will serve to show.

(a) Professor Horace Lamb said, "A good text book to replace Euclid is much wanted . . . also it should be Euclidian in method if not in phraseology. If anything else is attempted a disastrous muddle will ensue to be followed after few years by a reversion to Euclid as happened once I think in Italy. I have little to say on the subject of the Syllabus, except that as a rule, I object to all programmes, and schedules, and "courses." A's "system" of teaching Chemistry, B's "system" of teaching Drawing or C's "system" of teaching the Piano, may be very good as a method elaborated by A, or B, or C, for doing his own work; but in other hands it is likely to become as mechanical and wooden as any other."

(b) W. D. Eggar wrote, "I feel that some of your (Perry's) proposed innovations might lead to disaster in the hands of a teacher not fully gifted with judgment."

(c) W. P. Workman said, "I am not clear that it (the proposed reform) lays sufficient stress on the training in exact thought which our present system certainly supplies, though possibly, probably even, at excessive cost in time. . . . He further observed "a good mathematician may be trusted to each according to Professor Perry's proposals, and to get more out of it than he did from the older because it will evoke for more interest. An indifferent mathematician would do much harm, because so much is left to his own badly trained initiative."

(d) Sir Philip Magnus wrote, "But if the aim of mathematical teaching is rather brain development, accuracy in calculation and in measurement the acquisition of correct methods of reasoning or even a training that heaps discovery then I am not sure that Professor Perry's "royal road" is altogether a safe one for ordinary children. So for the purposes of general education a boy cannot be said to be learning mathematics by merely acquiring dexterity in the use of mathematical tables. I do not think Professor Perry meant all he said. . . . It must not be forgotten however that the process of teaching a child to discover is not a rapid method of arriving at results and may tend to retard rather than quicken progress as measured by worked chapters of our School Text Books."

(e) The British Association Committee on the teaching of mathematics say "an examining body might retain Euclid to the extent of requiring his logical orders" (School World, October, 1902).

3. Everywhere the drawing up of syllabuses is the order of the day. The Calcutta regulations closely follow those of Cambridge, and the Bombay and Madras follow those of Calcutta, but these attempt at grouping the propositions under different headings which any schoolmaster of ordinary ability can do. It is no wonder that the want of a proper substitute for Euclid has been felt at home as in this country. There as here also the financial difficulty of providing qualified teachers and the impracticability of giving effective teaching to large classes have been no less felt.

(a) Dr. J. Larmor writes in the following way. "The difficulty in regard to them (Professor Perry's proposals) is a practical one, there is the question of expense, to carry out such a proposal involves small classes and much individual attention to dull pupils, whereas the present more routine methods have been evolved largely in order to enable a single teacher to supervise a large class. There is the difficulty of obtaining a sufficient supply of elementary teachers who could be trusted to pursue a more unfettered course without exaggeration of wrong headedness."

Thus after 30 years' experience in England no workable and definite syllabus has been evolved so as to make the study of the subject uniform, the conclusion is irresistible that Euclid cannot be replaced as a branch of study by any syllabus of practical and theoretical Geometry in this country where the qualified teachers of practical Geometry have yet to be trained.

4. During the last 30 years Euclid has been a part of the Lower Secondary curriculum of studies. Euclid's Elements of Geometry Book I was practically a compulsory subject for the Lower Secondary Examination, from the seventies and as such it was taught in all ordinary schools, latterly it was taught as an optional subject and continued in the Lower Secondary Curriculum of studies from 1879 to 1899. The subject was removed from the Curriculum of Lower Secondary Studies by a Notification issued by the Director of Public Instruction in November 1900. The Government Notification approving of this removal appeared in November of the following year. The following facts may be adduced to show that Euclid's Elements was a favourite optional subject with the boys. The G.O.'s regarding the annual reports of the Government Examinations contain the following:

"Geometry and Algebra among males and Needle work among females continued to be the most popular of the Optional Subjects. The following figures show the number of candidates that took up this as an Optional subject."

				Elementary Science.	History of England.	Geometry and Algebra.
1897	...	...	...	297	438	7,561
1898	...	...	...	547	499	9,147
1900 and 1901	...	...	...		Figures not available.	
1902	...	...	...	247	263	3,244

With a view however to elicit the real state of opinion I forwarded a circular letter to the Head Masters of High Schools and other educationists throughout the Presidency soliciting their opinion on the question whether Euclid should or should not be re-introduced in the Lower Secondary Course. Out of 84 replies received about two-thirds 55 were in favour of the re-introduction while only three were neutral.

5. The Council of Native Education had taken the trouble to ascertain the views of the Head Masters of High Schools and other Educationists regarding the recent action of the Senate and I beg to append a summary of their replies. Out of 68 replies as many as 58 are for retaining the existing order of things.

A SUMMARY OF THE ARGUMENTS.

6. (a) Whatever be the conditions in Germany and in France, which must have rendered necessary some substitute for Euclid this country is not prepared for such a change.

(b) For the Oxford, Cambridge, Dublin, and even for the London University Examinations Euclid continues to be the basis of instruction in Elementary Geometry.

(As a proof that Euclid is not to be abolished, the fact that the Pitt Press Edition of Euclid is recommended by the Cambridge authorities as a Text Book may be mentioned. Rupert Deakin, M.A.)

(c) For the Preliminary Examination conducted by the Madras Civil Engineering College recently Euclid was the Text Book.

(d) Euclid continues to be the basis of instruction for boys in European Schools. The Educational Department apparently does not view the Senate's revolutionary changes with great favour.

(e) No substitute for Euclid has been found in England after 30 years' agitation. Present day publications have yet to establish a name. Some of the books that have recently been published with the object of providing such a substitute, however suitable they may be for Art and Technical Schools, are unsuitable for ordinary schools.

(f) The syllabuses issued by the Calcutta, Bombay and Madras Universities under the new University Act contain nothing which any decent Text Book of Euclid does not contain so far as Theoretical Geometry is concerned; on the contrary they contain much less.

(g) Practical Geometry will no doubt train the hand and the eye, but it is much more suitable for Lower Secondary Classes. Effective teaching of Practical Geometry is impossible with our large classes.

(h) Such teachers as we have cannot be familiar with any syllabus that may be newly elaborated. It is essential that the foundations of the subject ought to be laid by competent hands.

i) Euclid was an extremely popular subject with Lower Secondary Candidates as an optional subject before the prohibition of its teaching in 1902.

j) The numerous failures in the Matriculation Examination in Science for many years and in History and Geography during recent years are largely due to want of definiteness in the scope and extent of the Curriculum in those subjects. The proposed change in Geometry teaching will introduce a similar indefiniteness and may be responsible for further failures.

(k) The majority of invited opinions from the Head Masters of High Schools is against the Senate's proposal.

[In schools which teach up to the Matriculation Standard, two hours a week are generally given to Geometry in the three highest forms. In our opinion it is possible to obtain the benefits of practical work in Geometry and at the same time keep Euclid. The common objection made to the retention of Euclid is that it is learnt as mere memory work without being understood. But this is often due to a lack of sufficient explanation, and the objection may be met by a course in practical Geometry which will be preliminary to the actual study of Euclid. Thus it would be possible to institute a course of practical Geometry for the whole of the first term's work. Without giving formal definitions and theoretical proofs, much can be learnt about lines, angles, circles, regular polygons and the like. The pupil by the use of a ruler and protractor can see the truth of facts and will find in consequence the later theoretical proof of these facts intelligible. In the second term, this practical work may be revised, and a beginning made in the definitions, and propositions of Book I. In the third term Book I may be completed, and revision of earlier work done. In the fourth term, revision again will come and Book II. In the fifth term, Book III, and in the sixth and last term revision of the whole course will be done. In the latter part of the course easy riders may be set in connection with the propositions done. This is only a very sketchy outline but it has been impossible to say more here. The question is an important one and we believe it is possible to combine the advantages of practical work and theory. The practical work might with advantage be done in earlier stages still.—Editor.]

Oriental Studies in London.

DEPUTATION TO THE PRIME MINISTER.

The following letter is published in the *Times* :—

SIR,—The account given in the *Times* of Wednesday the 5th inst. of the deputation which, on the day previous, presented a memorial to the Prime Minister with reference to the organisation of Oriental studies in London was, necessarily no doubt, much condensed; and I shall be grateful, therefore, if I may be permitted, by way of supplementing this account, to call attention to the fact that, as explicitly stated in the memorial, the organisers of this movement—

“desire expressly to safeguard themselves against the slightest appearance of wishing to interfere with or injure in any way whatever the Oriental school that have been, or may be, established elsewhere than in London. Their sole

aim is to secure the proper and adequate development of an Oriental school in London, where they have reason to know that the need of it is being most urgently felt, and where, as has been pointed out, the facilities for establishing it are exceptionally great.”

Unless this attitude is generally understood, there is a danger that the movement in London may be viewed with some apprehension by the Oriental schools which already exist in this country. We have, for example, in Cambridge, in addition to the provision which is made for the study of the Classical languages of the East, efficient schools of instruction in living Oriental languages suited to the needs of selected candidates for the Indian and Egyptian Civil Services and for Consular students; and, as is fully recognised, the quality of the instruction given in Arabic, Persian, and Turkish in the classes presided over by Professor Browne, assisted by an eminent native scholar for each of these languages, is unsurpassed in any country of the world. It would undoubtedly be a great misfortune if the utility of such schools, at once scientific and practical, should be impaired by the establishment of a rival school in London. It is well, therefore, that assurance should have been so definitely given that no such interference is contemplated; and it may be confidently hoped that, in any new development, due regard will be paid to the interests of existing institutions.

As is pointed out in the memorial, and as was most fully acknowledged by the Prime Minister on behalf of the Government, the question of organising the teaching of Oriental languages in the capital of the Empire has become one of great imperial importance, if our commerce in the East is to be maintained and extended in the face of the increasingly formidable opposition of other countries. There should be abundant room for the satisfaction of this crying need without detriment to the good work in Oriental instruction which is being carried on elsewhere than in London.—I am, Sir, your obedient servant, EDWARD J. RAISON, Professor of Sanskrit in the University of Cambridge.

Echoes of Science.

Photography by wire.

Professor Korn's marvellous discovery of “phototelegraphy” or the transmission of photographs by electric telegraph, has naturally excited the greatest interest among French scientific men. The young Munich physicist was at one time a pupil of Professor H. Poincaré. The latter is enthusiastic over the discovery. He gives a clear explanation of Professor Korn's invention, the principle of which rests on the property possessed by the metalloid selenium of conducting electricity more or less in proportion to the degree to which it is exposed to light. The transmitting apparatus consists essentially of a system of cylinders revolving by clockwork, and unwinding a film on which is printed the photograph to be transmitted, the whole being contained in a dark chamber which has one small aperture. Through the latter a strong lamp throws a light

she has furnished the teachers. Through the course of study the educative material has been selected and fixed, and through the teachers the methods of instruction have been determined. The bondage of the high school to the college has been long, but in the main it has been pleasant and profitable. At the present time there are many indications that the fetters will soon be loosed if not entirely broken. The college has already yielded much to the demands of the high school, and it seems certain that much more must be yielded before the final adjustment is made. The past decade of close study devoted to the high school problem is already bearing fruit, and within the next decade we may expect a bountiful harvest.

The commonly accepted aim or purpose of education at any time or in any school exerts a controlling influence upon the methods used. Back in the olden time the teacher was everything, for he alone could satisfy the blind craving to know. Then instead of the school, there was the itinerant teacher going to and fro, talking, questioning and being questioned. Sometimes he was accompanied by bands of eager students, disciples, who in turn became teachers. The aim of prob. education was to perpetuate the views of the teacher. Nothing was learned miles 't had first been filtered through the brain of the master. Every truth Poincare' fied in the furnace of the teacher's mind before it was allowed to reach To enable ent. For the purpose intended the method was very effective. The one tenth of Subts the power of this method needs only to remember that it was wires c. poss. asively used by Jesus.

t) The life of any school depends upon the purpose worked out in the course of study, and the means of realizing that purpose as revealed in the methods of instruction. Laurie says: "All educational institutions must die which do not directly and conspicuously promote either the spiritual or material interests of men." Most students agree with Laurie's conclusion. History has furnished many verifications. The present widespread interest in technical education is due in part to the definiteness of aim of the technical schools, and to the certainty with which they promote material interests.

There are various ways of stating the present aim of education. Among those who have given thought to it, there seems to be substantial agreement to the following: The purpose of education is to produce in the individual efficient power to adjust himself to his environment. This calls for an all round education; an education that brings hand, head and heart into harmoniously related action.

The clear recognition of the aim of education by advanced thinkers, and the wish for better things by the common people, are not sufficiently powerful to bring immediate changes in school methods. Conservatism makes changes slow. It is the safeguard of the college, but it is likewise the cause of much righteous impatience. The college would gain in power by changing methods and aims frequently enough to keep closer to the great educational thinkers.

During the Middle Ages the scarcity and great cost of books made instruction through them impossible. Teachers were compelled to resort to the lecture, dictation and disputation. These methods served the time well and developed

some men of great power. We have no record of the many who were wrecked and lost by these methods. The schools with these methods saved for us the learning of the past and kept alive the desire to know. We owe them much; but our debt is not so great nor the demand for payment so urgent that we need to attempt payment by using these methods to-day.

The German authority, Paulsen, tells us that the German universities have three well defined methods in use; the lecture, the mixed and the recitation. In the lecture method the student may do collateral reading on the subject under discussion, but his main business is to listen to the cratery of his professor, take notes, and from these prepare for his examination. In the mixed method there is a combination of lecture and recitation. Sometimes the whole hour of meeting between students and professor is devoted to questioning, sometimes to lecturing, and sometimes it is divided between the two. In the third method a definite task is assigned to the student, and the recitation hour is spent in deepening and fixing the results of the student's study by questions, hints and informal lectures. The methods are all used with success, but the best German critics favor the second and predict that it will eventually supplant the others. For advanced students the German university has the *seminar*, an almost ideal method. This method gives the closest and most sympathetic contact between professor and student.

In American colleges the three methods of the German universities are used. The recitation method is common, especially with first and second year students. The mixed and lecture methods are used quite generally with third and fourth year students, and many professors use them with all their students. At present there is a marked tendency away from the recitation, through the mixed to the lecture plan. This is doubtless due to the large and increasing number of German trained American professors.

A short residence among college students will furnish convincing evidence that from their standpoint the lecture plan is a "snap," the mixed method fairly easy, and the recitation a task that calls for hard study. The athlete and the society man generally select lecture courses. Lecture courses may be made as difficult and as valuable as recitation courses. In almost every college there are individual professors using the lecture or mixed method with unqualified success. Perhaps in every college there is some professor using the recitation method and making an unqualified failure of it. All this merely shows that a man may be bigger than his method or less than any plan that he may adopt.

Thring says, "It is obviously the province of a teacher to know why he teaches, as well as what he teaches and how to teach." The teacher who would do his full duty needs to know the what, the how, the when and the why. The fundamental requirement, without which the others are impossible, is scholarship. The college has always paid high tribute to this necessary pedagogical requirement. The great scholars of the world have in the main been college professors. The other essential requirements have not fared so well in the college world. Scholarship is a necessary condition to good teaching. The college has often insisted that it is also a sufficient condition. There is no better place

is the fallacy of this than in the faculties of many of the colleges that upon its validity. The great scholar may never have taken the time to his knowledge into the form best suited for presentation to the learner. He ever have thought of the learner in relation to the knowledge. If so he can to proper conception of the appropriate time for its presentation. He may to reason for the faith that is in him, that is, he may never have thought to educational value of his subject nor the means by which this value can be realized. The great scholar may, therefore, be a very poor teacher.

The scholar who cannot teach may still be a desirable member of a college body. His ability in the field of research may give fame to his school, and example of his passion to know may inspire the students with zeal for learning. But however desirable an occasional scholar of this sort may be, a faculty must not be made up of such men. The great scholar may attract student, but it is the man who combines scholarship and teaching power who holds him and justifies his expenditure of time, money, and nerve force.

As has already been noted, the high school is a great debtor to the college. It quite recently the course of study has been made in answer to the entrance requirements of the college. The widening of the field of study in the college has multiplied the subjects required for entrance, and made the demands exacting in some of the older subjects. The response of the high school to these changes has been immediate and quite satisfactory to the college. The high school itself has been surprised at the ease with which it has met new requirements. This surprise has caused high school men to study the whole question on the side of the high school student. A few high school graduates go to college. The great majority enter the school of life. Should the few or the many be the determining factor in the course of study and the methods of the high school? Possibly the entrance requirements are best for all. If so, change is needed. The investigation and thought given the question by the high school men shows great difference in views. Many high schools are already giving the emphasis upon the courses designed for the majority. The colleges are taking notice, and in many of them great changes in entrance requirements have already been made. It seems clear that ultimately the college must take the student as he comes from the high school. Surely the work from fourteen to eighteen that prepares the student best for adjustment to his life environment must also prepare him well for the adjustments required in college life.

High school men are now studying the question with the emphasis upon the life involved. The high school is the finishing school for the many. It is rapidly becoming the people's college. Its rapid growth has made it difficult to secure an adequate teaching force. It has been compelled to recruit its teaching force from raw, inexperienced college graduates. These teachers have scholarship, but they have never given any time to the other teaching requirements. They have no conception of the larger high school problems. Many of them, in time, become strong teachers, but while they are learning to teach they help to fix on the high school many of the worst methods of the college. These conditions may be remedied in the future, but at present they must be reckoned with in discussing the methods of the high school.

In the good high schools of to-day there are two methods of instruction, the recitation and the laboratory. In both methods the teacher supplements the work of the pupil by informal lectures, and occasionally in a formal manner rounds up and organically relates the results of the study upon a particular topic. The poor methods in the high school are due to the old teacher who has not profited by study and experience, and to the youthful teacher, fresh from college, who believes in research, lecture, and academic freedom to the extent of introducing them into his high school classes.

The past decade has witnessed great improvements in high school methods. The introduction of the laboratory has been the means of bringing about many of the most desirable changes. The laboratory, by appealing to the intellect through activity, has interested and saved many boys and girls. Its greatest service, however, has been to make all the work of the school more thoughtful and pedagogic. The management of a laboratory requires foresight, plan, preparation, and a definite conception of the end to be attained. The close organization of the high school makes every part function with every other part. The good things of the laboratory have made better all the other activities of the school. The demands of the laboratory and the lively interest shown by the pupils in their laboratory work have often forced the teacher of a non-laboratory subject to become conscious of a purpose in his work and to seek proper means for reaching it. The very general introduction of manual training is having a wonderful effect on all the work of the high school. It is a laboratory on a large scale, and is forcing reorganization and thoughtful work into the teaching of every subject.

The increasing importance of education, the realization that the high school is the college of the people, the influx of large numbers of strong men and women teachers, the thoughtful attempt to reach the real aim of education—these things have all contributed to make high school teaching the best done in America to-day.

In all good high school work there is rather close supervision of the student. He has tasks set, and some one sees that he does them. He is given large freedom in the way of doing them, but do them he must. This supervision is both desirable and necessary. Life constantly makes us pay penalties because we have ignored her tasks. The end of supervision is the formation of habit. The individual that forms the habit in school of doing things in a masterful way at the time when they ought to be done will find it easy to earn degrees in the school of life.

The high school has learned much from the college. The college might with profit learn a few lessons from the high school. In the interval from June to September—from high school graduation to college matriculation—no very profound changes have occurred. The college professor faces in his beginning class in September thirty boys and girls, who differ from the thirty boys and girls that faced the high school teacher in June only in selection and strangeness to each other. Most of the college thirty are picked. Before the end of the freshman year many have dropped by the wayside—some have failed, some have become discouraged, and some have lost their moral anchorage. The theory

that the college deals with adults and need not bother about oversight is not tenable. Freshmen need almost the same care that the seniors in the high school demand. Perhaps the freshman's lack of home influence makes him need oversight even more than the high school boy. The change from direction to self-direction is most desirable, but it cannot be abruptly made with safety. Where the change in method is much greater than the change in the student, bewilderment and discouragement are apt to follow.

The present need is for a closer union in methods between college and high school. The college freshman misses the friendship and kindly interest that has marked his relations with his high school teachers. In attempting to go it alone he makes too many mistakes. He must get this ability, but he does not need to get it all during his first year in college. The change from high school to college ought to be but slightly greater than the change from the grades to the high school, or the change from one year to another in the high school. School life should be continuous from the kindergarten through the university. Changes in method should be as natural and gradual as the changes in the physical form. This ideal time will be hastened by closer contact and more sympathetic co-operation. We must finally recognize that good teaching is good teaching, whether it occurs in the kindergarten, the university, or anywhere between.

When college men recognize the need of thoughtfully considering the pedagogical side of their work, and high school men have a desire for more profound scholarship, each will take a more charitable view of the other's work. Out of this broader charity and its resulting harmony we may expect great teachers with a passionate concern for youth—*Education, Boston*.

* * *

The Board of Education in England finds that a great confusion of thought still exists throughout the country with regard to super-primary education. It is anxious to establish a good mutual and general understanding. Some interference with natural selection is inevitable.

"Such is, however, the function of the State throughout. To what extent State interference is compatible with local self-government and individual initiative is a question which lies at the root of the whole system of government, and the solution of which requires the highest qualities of intelligence and sympathy. The limit of useful State control is to be found at the point where it ceases to be an expanding and stimulating force, and tends to fetter or sterilise."

These ideas are to be understood as inspiring the Secondary Schools Regulations, as seeking expression in the general aim and direction of the Board's inspection of Secondary Schools and through all their administrative action. Thus the object of the rules as to curriculum is—

To ensure, even at the risk of some interference with free experiment, a certain amount of breadth and richness in the curriculum of Secondary Schools, and to provide against Schools recognised under that name offering only an education which is stunted, illiberal, unpractical, and over-specialised.

So does early experience in the departmental regulation of Secondary Schools go to justify, on ground of necessity, the rigid uniformity of the early Codes for Elementary Schools. But, as with them, so (and doubtless much sooner so) with the Secondary Schools—

With the growth of educated public opinion it may be possible, and, whenever it becomes possible, it is highly desirable to relax these requirements in Schools of tested efficiency, and to leave them a larger freedom in devising and executing schemes of education of their own.

The object of first importance the Board holds at present to be to establish a standard of quality, rather than to hasten an increase in quantity.

Various steps towards setting up a standard of quality were taken by the Regulations for Secondary Schools of 1904. As usual in such matters they were greatly hampered by the existing disorganisation. There were difficulties of vested rights; of the need for a certain continuity; of time required to overcome prejudices. But in spite of that the establishment of a certain standard of quality has been followed by a great increase of quantity as well as of efficiency.

As represented by the following figures:—

In 1903-4 there were 482 schools recognised by the Board as Secondary Schools, with nearly 66,000 pupils. In the following year there were 575, with nearly 95,000 pupils, while in 1905-6 the number of recognised schools had risen to 684. About 110 more schools applied for recognition at the beginning of the present school year.

Though this is not all claimed as effective increase, and though many of these schools have still to justify their permanent existence as Secondary Schools by advancing to the necessary standard, each year is reported to show a steady advance under the Board's steady pressure.—*School Government Chronicle*.

FORM TEACHING. By A. C. BENSON.

This is the point which is far too much neglected in the scientific analysis of educational problems—the personality of the teacher.

The three qualities which I should consider most important in combination, are kindness, strictness, and liveliness.

Boys will work very faithfully for a little occasional and generous praise.

Boys do not at all dislike being dragooned if it is done paternally.

A system of small punishments is futile and irritating.

A man should realise what a tremendous force variety is in dealing with immature minds.

It [general reading] made the work fresher, and produced far better results than if I had subsided into helpless drudgery.

His [the teacher's] work cannot be well done if it is done in a formal and solemn manner. It must above all things be done in a brisk, generous, and enthusiastic spirit.

* * *

It "every day is a new beginning," surely every term in school suggests new opportunities and affords fresh inspirations. Few callings offer so many contacts of soul with soul as the teacher's. Few workers have so much direct responsibility, of so high a kind, for the results of their labour. In no department of human activity is the personality of the employee of more consequence to his employer and to the community. Teaching calls for the highest qualifications in the character of the teacher and offers the greatest chance for self-expression of any human occupation.

The teacher's virtues, and, alas! his faults and vices, will reproduce themselves in the characters of his pupils with as much certainty as physical traits are transmitted from father to son. There is the call, then, to seriousness, thoughtfulness and constant effort to realize his ideals, as the teacher starts out on a new term and faces its duties and responsibilities. There is the call to forget the things that are behind and to reach forth to that which is before. There is the call to new consecration and to new vision. Courage, hope, patience, faith, cheerfulness, kindness, tact, are words to be repeated and thoughts to be dwelt upon. The immense value of the soul of the poorest and most backward boy in school; the infinite possibilities of good or ill wrapped up in the personality of the most unattractive or the most frivolous girl in our classes; these are the voices that call us to gird ourselves for our work as the term opens.

Who is sufficient for these things? No one, alone and unaided! But relying upon higher aid and then doing our earnest best, we know that reasonably successful results will follow. So there is the call to *devoutness* and *consecration* in the pregnancy of the hour, as we take up the new year's duties. In this frame of mind we shall be serious but not nervous—*Education, Boston*.

IMPARTIALITY IN TEACHING.

There is a tendency in some departments of French Education to insist on introducing into schools the discussion of current controversies, social, political and religious. It is thought that in after life boys (in after life the boys) (Remove brackets) will take a more intelligent and active interest in current events and national movements, if they have been made familiar with the questions of the age at school. This tendency is a dangerous one. For who is to control the teacher if his views are undesirable or revolutionary? Moreover, social problems require to be studied by mature minds. If boys of sixteen and seventeen years of age study them, they are likely imbued with prejudices and mere catch-words which they do not understand. Incapable of thinking out things for themselves, they will be the slaves of authority and a great evil in education will be aggravated,—the amassing of knowledge which has never been reflected upon.

Rousseau, in criticizing the methods of teaching History current in his time, rightly says that history if properly taught should afford an excellent study in practical philosophy. The student, taking a detached stand point far from the prejudices and clamours of contemporary writings, can examine with impartiality the character of the great men of the past the causes and results of institu-

tions and events. Rousseau's view is thus the antithesis of a view which finds support to-day in France.

And, indeed, History, if, properly taught can afford a very valuable training in this respect. The pupil can be taught to estimate the value of evidence. He can take, for example, two characters of a man, one written by a friend, the other by a detractor, and compare the two. He can study, in the higher standards of the school, original documents and see how far the modern interpretation of them is sound. He thus learns to view the past with an unprejudiced and sympathetic eye, and in later life he will be more likely to interpret the present and judge of the future correctly. If this be true, it would seem impartiality was a golden rule. But one qualification must be made. In all teaching the views and convictions of the teacher inevitably colour his attitude to various subjects. He is not composed merely of intellect: he has likes and dislikes and an emotional temperament: and it is largely through the emotions that an insight into the meaning of writings, events and men, is gained. For example suppose the Stuart period in English history is being studied. The teacher will have religious, political, or sentimental, sympathies. His attitude to Charles I. and Cromwell will be coloured accordingly, and this attitude will influence the class. But this fact is not entirely regrettable. For striking views lend a vividness and interest to teaching, which the cold reason alone cannot rouse.

MR. HENRY JAMES ON ENGLISH AS SPOKEN BY THE AMERICANS.

In this day of active interest in the teaching of English in our secondary schools, we feel it will be of decided benefit to the teachers as well as to the students to find out exactly what Mr. Henry James did say in the famous speech made at Bryn Mawr—the cause of so much comment in the newspapers. Mr. James has a right to speak on this subject, for he is a master of the English language, though fortunately there may be many masters and one may choose. His speech was divided, for the purpose of criticism, into seventeen parts by an industrious and interested hearer. They are:

- "1. Speech is very important."
- "2. Americans don't speak so well as they think they do."
- "3. They have no 'vocal tone' such as the English, French, Germans, and Italians have."
- "4. The speech of the young is neglected by their elders."
- "5. Flatness, crudity, negligence, characterize our speech."
- "6. The consonants are not well articulated, are even dropped out, as in 'Ye-ch' for 'Yes.'"
- "7. The letter *r* is trilled."
- "8. Or added where it does not belong, as in 'idear,' 'popper.'"
- "9. The letter *s* is similarly added, as in 'nowheres-else,' 'a good ways off.'"
- "10. Some vowels are drawled flatly, as in 'gawd,' 'dawg,' 'sawft,' 'lawft,' 'gawn,' 'lawst,' 'frawst.'"
- "11. In fifty years, if we try hard, we may shine phonetically."

life, they can no more be democratised in their government than a man-of-war. Democracy presupposes a strong compelling respect for law. Respect for law is not by nature; it must, therefore, be super-imposed on nature by habit and schoolmistress accordingly are justified in claiming of time. The schoolmaster, armed with a measure of strong and unquestioned authority in dealing with adults, would control, which, if granted to an individual, would seem arbitrary and insufferable. This is why the head of a school claims power to appoint and dismiss his own staff at a day school outside the school-house, holding his scholars to account for their conduct on the way to and from school, making certain demands on their evening abstinence from certain habits, such as smoking at all hours and in all places actually by the parents, but injure the good name of the school collectively and prevent the boy from fulfilling, to the best of his powers, his duty to the school society and taking his part strenuously in its common life. No school is fitted to train, through the sixth form system, to train its juniors to obedience and its seniors to be democratic, save in a prophetic sense. Such a school cannot be said to be democratic, save in a prophetic sense, but it is the sort of school which a stateable democracy requires.

Such unquestioned control will always be liable to abuse, and against such abuse all precaution should be taken. The parents and governing bodies should enter a boy, the conditions under which he enters. A child receive immediate lay down the lines and the limits of discipline, and should be aware of the circumstances; also, if a headmaster claims the confidence of his governors, he must himself submit to dismissal if he forfeits that confidence. His security of authority; the continued confidence of his Governors is his tenure.

Nor does such claim as this imply that law should be enforced without any law and subordination to law should be enforced automatically without understanding on the part of the automaton as to the motive which children can be made to understand that law is not an end in itself, but the means to an end. A master may easily take the whole class or school into his confidence; such things have happened or are liable to happen if we do not prevent it. These things will injure the good name of our school, they will corrupt education, and make it a place where no young boy can safely be placed for two or three years. Other things, again, will hinder the process of learning, and some of their work; boys will make it impossible for all the rest of the class to get on in it, lest these things should happen, prevent. And so it follows that a rule must be made, and shall be binding on all; the good of the whole must be the rule of each. Boys are eminently amenable to such reasoning as they can understand the why and the wherefore of their life, and will readily co-operate to enforce a law of which they see the purpose. Whatever we may think of the late Archbishop's judgment on parents and masters, he was right as to boys—"Boys are always reasonable."

And boys are reasonable not only in their collective capacity, but even individually when they have to face up to punishment. They may feel a temporary joy if they are let off lightly, but they despise the man who does it. They have a vague consciousness of the quality of their nature; they know that there is in them both a Dr. Jekyll and a Mr. Hyde, and recognise that in committing a fault it is a baser self which has triumphed for the moment. The supreme duty of the schoolmaster at such a time is never to allow the better self to go away disappointed in him, or the flesh which has lusted against the spirit to feel that it has lusted with impunity.

When fight begins within himself

A man's worth something.

That fight goes on with every boy. It is the office of the punisher to reinforce the right side, and cow with terror the wrong. Love without discipline demoralises its object; it is a spurious sort of love at best. Love is always stern towards evil, for the reason that it is only evil which destroys love.

It is the more necessary to insist on the sanctions of authority because the spirit of the age tends in the opposite direction. The old-fashioned severity of the home has vanished, and the youngster learns at an abnormal age to exact the horn of his own self-will and to dominate the household. The public nerves are liable to excitement, and in such a state are hardly able to discriminate between needful severity and wanton brutality. Halfpenny journalists find "brutality" more sensational as a headline, and we have the strange phenomenon of a public which gloats over "Dracula" but is shocked to read of a judicial flogging. Again, local authorities are tempted to manage education as something that can be laid on like electricity, water, or gas; and they have a fondness for keeping authority in their own hands. The municipal headmaster finds himself shorn of some of the most important powers entrusted freely to headmasters of other secondary schools; he is liable to become assimilated to other municipal officials; he has, so to speak, his fixed time-sheet, his fixed range of action, and he is apt to lose the feeling which prompts the highest and keenest endeavour—the feeling, namely, that the school is his own, a sort of larger self, in the making or marring of which he makes or mars himself; the municipal headmaster is never likely to think of his school, like Dr. Arnold, as "his greater self."

In the schools themselves we find the same tendency towards softness; the influence of Pestalozzi subordinates the system to the child; the faults of the child are regarded as due to anything and everything rather than to the child himself. The source of evil must be found without, not within; implicit obedience is scouted as an unintelligent process, fatal to individuality, reducing the human being to the level of a machine; if a boy is inattentive it is the teacher's fault, because the lesson is dull; if a boy does wrong he is, after all, what circumstances have made him, and he cannot be held responsible for circumstances; in short, as President Draper pithily says:—"The children used to sit at the feet of the teacher; now the teacher sits at the feet of the children."

All this represents an inevitable reaction against the old school of—

Qui, quæ, quod,

Fetch me the rod.

The "old masters," whose favourite colours were black and blue, are no more, and no tears need be shed over their demise. But the reaction, though inevitable and certainly not premature, though it is based on a right principle, needs to be watched. Reactions usually overdo themselves and defeat their own purposes. It is not right that the child's school life should be all gall and wormwood, but neither is it right that it should be all cakes and ale. The United States of America have seen the fullest development of the Rousseau theory in education. There are not wanting warning voices from America. Professor Armstrong in the Mosely Commission reports that everywhere the heads of high schools complain of their pupils being unable to concentrate their attention. The evil spreads beyond the school. Juvenile crime does not decrease in the same proportion as the distance between teacher and taught; it seems, indeed, to work out in the inverse ratio. General McArthur states that desertions in the Army are to be regarded as "an unavoidable evil." The commandant of the schoolship Saratoga states that "not a single boy who entered the Pennsylvania Nautical School had apparently ever obeyed an order before in his whole life," and President Eliot complains that the respect in which Legislatures and the Courts are held has unquestionably declined. Such warnings will not be lost on English teachers and educational authorities; it is easier to relax the reins of discipline than it is to tighten them.

The true guiding principle is not difficult to discover or formulate; it, too, can be stated in terms of Pestalozzi, for it takes account first and foremost of what is best for the child. It aims through restraint at constraint; through restraint of evil it seeks the constraint of good. It starts from the categorical "Thou shalt not," enforced if necessary from without; it has always in view the categorical "Thou shalt," enforced by inward love of the good and instinctive habitual preference of the higher over the lower. It, too, believes in freedom, but a freedom which consists not in doing what one likes, but in liking what one ought. It believes in interest, but it cannot make a fetish of interest, nor does it desire to substitute an education of interest for an education of effort. "Interest," as Professor Armstrong says, "cannot always be maintained at bursting point; in school, as in the world, uninteresting work must be done sometimes, and in point of fact it is most important to acquire the art of doing uninteresting work in a serious and determined way." There is drudgery in every life that is worth living, and blessed is he who has learned not to shirk it. In fact, a closer inspection discloses a fundamental flaw in the logic of the gospel of interest. "Make work pleasurable," say its advocates, "and faults will not occur, punishments will not be necessary." But they forget that to secure this result one has not only to make work pleasurable, but to make it more pleasurable than anything else. It is not hard to make work interesting, but to make Latin more interesting than cricket is not easy when handling English schoolboys full of animal spirits. Many a boy will be interested in Plato, but it is only a Lady Jane Grey that will prefer Plato to hunting. "Amicus Plato, amicus ludus."

Restraint, therefore, is necessary, but its whole object is to make itself by degrees unnecessary. Discipline, which starts with being a negative thing, a prohibition, must from the first have also its positive side; and the positive side

must increase, the negative decrease. Cruelty to animals, for instance, can be checked by penalties, but kindness to animals can best be taught by keeping pets. It is on the positive side of discipline, the discipline of games, of sixth form responsibility, and all the different activities of corporate life, that English public schools are strongest and the new municipal secondary schools have most to learn. It is the out-of-class activities, which provide the best field for positive discipline, because in them a boy finds the best scope for self-direction; in them he learns an enthusiasm for an object which is not personal, and for an honour which redounds to the good name of the school rather than any single individual. He learns also that this honour must be won according to law; if not so won it is rooted in dishonour and worthy of all scorn.

Though this positive form of discipline lies outside the class-room, it does not lie outside the province of the teacher. True he is here no longer in command of his pupils, but, though not over them, he can be with them; though no longer an instructor, he is all the more a teacher, because he is educating through the most powerful of media—namely, companionship. This is the Greek method of moral training for the young, not a syllabus, not preachment, but "being with them;" it is the secret of Herbert's Führung, and Carlyle rediscovered it when he said "Soul grows in contact with soul." The teacher who has earned the sympathy of his pupils by participation in their common pleasures and their common life, who has found how to lay his soul alongside theirs, will not find it hard to minimise and gradually eliminate from his class-room the penal element of forcible restraint. He will constrain, which is better, and so fulfil the requirement of Xenophon's ideal king, who governs by consent.

The Christmas Vacation Classes at Saidapet.

(Concluded from the preceding issue.)

In this article we propose to deal with the conferences to which reference was made in the January number of this Journal. There were seven conferences presided over by gentlemen eminent in their spheres of work, and at these papers were read and discussed by the members.

The first conference was held on December 26th, when Mr. A. R. Gopala Aiyar, B.A., L.T., Headmaster, Government Training School, Coimbatore, read a paper on 'Civics Teaching,' under the presidency of Mr. J. H. Stone. The essayist viewed the subject from its various aspects, and declared that the teaching of it is morally and socially useful in schools, and that its educative value is undeniable. He also pointed out the facility with which the subject can be correlated with other subjects of the school curriculum, and thought that much of it can even be incidentally taught from the daily observations of pupils.

In the discussion that followed the following new suggestions were made:—(1) That the teaching of the Hindu Cycles of years and months, and popular Astronomy may be aptly included in a syllabus on the

subject; (2) that the practical and utilitarian side of the subject must be most cared for; (3) that the subject should include political economy and History; (4) that the subject should be taught by making the pupil observe the working of Government institutions, and naturally from some incident that arises, and not by the dictating of notes on the subject gathered from books. Besides these, questions were raised as to how much of it should be taught, and at what stage it should be begun in a Primary School.

In his presidential speech Mr. Stone criticised some of the suggestions, answered some of the questions and stated his aims in instituting these conferences. On the suggestion of one of the members, a committee consisting of 15 gentlemen was formed to draw up a curriculum on 'Civics' for Elementary schools, and the first conference came to a close.

At the second conference held on December 28th, Mr. J. S. Ramayya of the Government Training School, Saidapet, read a paper on "The formation of character in boys" and Mr. S. Subrahmanya Aiyar of the Teachers' College presided. The essayist remarked that by virtue of his profession, the teacher has many opportunities of forming good character in his pupils. He pointed out instances of great men and suggested that incidental references may be made in class lessons to their history. He observed that children have no character at first, that they are devoid of reason and knowledge of consequences, and that the formation of character begins with the awakening of conscience. The incidents of childhood, though apparently trifling, deserve the careful attention of both teachers and pupils. He emphasised the fact that education, true and useful, means not the mere possession of a store of information and facts, but, an application to practice of all knowledge, and the equipment of a man with a sense of responsibility for the part he has to play in his life. He then remarked on the necessity of forming at school some of the elements of character, *e.g.* Fear of God, Duty, Self-control, Loyalty and Good manners. He concluded his essay by requesting all teachers to note that they are in every way responsible for the uplifting of the moral condition of the nation to which they belong.

Among the suggestions that were made in the discussion that followed were (1) The necessity in this country of bringing the children under the influence of the teachers even out of school-hours by the institution of well-managed and well-disciplined hostels; (2) the beneficial influence of a collection of the portraits of great men hung up in class-rooms; (3) the suitability of introducing the stories of the heroic, and historic personages of this country (*e.g.* Rama, Krishna) incidentally during class-lessons; (4) the necessity for good surroundings and good initiation in the formation of character, and for minimising punishments; (5) the suitability of religious instruction in Mission schools which is of the utmost importance in the formation of character, and the necessity for the other schools to adopt some kind of religious teaching; (6) the formation of character to be inci-

dental, and that in the early stages pupils should be made to imitate their teacher who is expected to be good and great in all respects. It was also suggested that the teacher's part in the formation of character should be passive.

The President congratulated the lecturer on the excellent manner in which he had gathered the materials for his essay; and said that as his usual work all through the year was to talk of the formation of character he was guilty of talking shop. He said that character is something very complex, and that it is not formed in a day or in a number of days in children; and that as it depends on various circumstances, some being beyond the control of the teacher, all that he could possibly do is to aid its formation by forming good habits. He admitted the advantages of the residential system in schools, and the necessity for greater contact between teachers and pupils in their daily life. He explained that character is nothing but uniformity of moral conduct, and that the formation of moral motives is the essential work of the teacher, especially when children require a strong initiative in the beginning. He considered that their instincts and motives should as far as possible be utilised, and that the teacher should be able to interpret the ways, looks, words and actions of children. Regarding the manner of training in the formation of good habits, he considered that in the lower classes, the children should have a great love for the teacher, and must imitate him in all his actions. The commands of the teacher should be practicable, and his relationship to the pupils must be one of affection and sympathy. In the higher classes the same methods may be adopted with the addition of incidental moral stories, and by the teacher mixing with the pupils out of school-hours. He concluded his remarks by saying that in the case of still older pupils, the teacher's work is much less in this direction as the pupils can think and act for themselves.

The third conference was held on December 31st, and an essay on 'The Experiences and aims of a teacher in Training schools' was read by Mr. M. Thammanaiya of the Government Training School, Mangalore, and Mr. A. A. Hall occupied the chair. The essayist observed that though the experiences of the teachers in the various Training schools in this presidency may differ, their aim is really one and the same. He complained that at present most of the training schools have not been provided with suitable buildings, and emphasised the necessity for a suitable provision for Kindergarten and Drill. He enquired whether under the new system, method should be taught in connection with model and criticism lessons. He impressed upon the audience the necessity and the utility of Teachers' Associations in Training Schools, and suggested that professional as well as popular meetings were necessary; and he considered that hostels were necessary.

Mr. Stone answered the essayist saying that method should be taught in connection with model and criticism lessons, while discipline should be

learnt by observation. Among the suggestions that were made at this conference were (1) that instruction in elementary principles of Psychology and in the scientific basis of methods should be given to Primary teachers; (2) that instruction in the vernacular language must be better given in Training Schools; (3) that a better attempt should be made to remove the shyness which is generally observed in the trained teacher even after he leaves the Training School; and (4) that the work done in the Training Schools should not be judged by the number of passes in the examinations as is the case at present.

In his presidential speech Mr. Hall advised the teachers not to fritter away their thoughts in attempting to learn too many subjects, but to confine themselves to as few as possible, and to do them thoroughly. He said that in England the teachers do the little that they have to do very thoroughly. He wondered whether the teaching of Psychology to the Primary teacher could at all be possible, and declared that school-masters generally are apt to talk too much about themselves and their work without having any idea of the world outside their sphere. He remarked that the natives of this country are peculiarly shy, and that it may take a long time before the defect can be removed; and laid much stress on the necessity for hostels in connection with all educational institutions in this country.

At the fourth conference a paper on the 'correlation of school subjects' was read by Mr. M. Balasubrahmanya Mudaliar of Vizagapatam on the 7th January 1907, with Mr. J. A. Yates as Chairman. The essayist began his subject by remarking that the idea of correlation is new to this country, and apart from economising the teacher's work it develops in children continuity of thought, good character, self-reliance, and good powers of observation; not to speak of its aid to discipline. He observed that the following groups easily lend themselves to correlation (1) Civic reading, conversation, and draft writing (2) Object lessons, reading lessons and Drawing (3) Kindergarten occupations and Arithmetic, (4) Hygiene and Civics.

The following suggestions were made in the discussion that followed: (1) that the story in the lower classes must be the centre of correlation, and that all other subjects should be connected with it; (2) that in order that the principle of correlation may be adopted, the lessons must necessarily be oral, and that on no account should correlation be forced; (3) that as the object of correlation is to sustain the interest of the pupils, the teacher must necessarily be given a free-hand in the matter, and be allowed to choose his own order of subjects, and that correlation simply meant intelligent teaching; (4) that school-work should be correlated with the domestic life of the pupils, with which the teacher should be familiar. e.g. The goldsmith's craft may be well impressed by reference to a goldsmith's son at school.

Mr. J. A. Yates admitted that while the principle of correlation is not possible in the higher stages of instruction it is quite necessary in the lower classes as it greatly economises the work of the teacher, regretted its absence in the village schools of this country, and doubted whether it may be possible at all. He said that one central idea is always necessary, and is adopted in schools in England. Clay-modelling he declared to be a very good occupation which particularly lends itself to correlation with other subjects. He laid stress on the necessity for dramatisation in schools, and said that in the course of his experience he had seen the children take great delight in it. He suggested that it could be used with great advantage in teaching Arithmetic.

The fifth conference was held on January 8th, on that memorable day when Their Excellencies Sir Arthur and Lady Lawley visited the classes, and addressed the members. The Hon. Mr. Castle Stuart, I.C.S., Director of Agriculture, presided. Mr. K. S. Narayana Aiyar of the Government Training School, Bellary, read a very interesting and suggestive paper on "The Scope of Agriculture teaching in Training Schools." The essayist pointed out with great force that the study of Agriculture is of the utmost importance in this country, and that no further time should be lost in losing sight of its importance. He also said that the ryots in villages should be taught improved methods of cultivation, and suggested that it can be done by imparting instruction in Agriculture to the elementary teacher in the Training School. He was of opinion that a small farm should be attached to every Training School. He emphasized the necessity for agricultural associations in important centres of this Presidency from which agricultural education may spread to the villages.

In the discussion that followed the essay, the following views were put forth:—(1) that the difficulty of introducing the subject practically in the Training School, is due to the erroneous idea in the minds of the higher-caste men that Agriculture is degrading; (2) that a farm cannot be maintained in connection with each Training school as that will be very expensive; (3) that for the improvement of Agriculture the co-operation of the Revenue Officials is necessary; (4) That the school can never cater to special needs, and that the aim of the teacher is to turn out the intelligent citizen who is expected to use his intelligence in every branch of life; and (5) that the Training schools can never be converted into agricultural schools; but that a school-garden is necessary for purposes of Nature study and Object Lessons and for purposes of experiment.

In his presidential speech which lasted for more than an hour and a half, the Hon. Mr. Castle Stuart said that it was his earnest opinion that there should be a close connection between the Educational and Revenue Departments. He also laid stress on the fact that Agriculture is an important subject which we cannot neglect, and that while other countries of the world

have found it necessary to improve cultivation to meet the increasing population, it is inexplicable why India, a purely agricultural country without any other resources, should lag behind. Regarding agricultural associations he declared that at present they are composed of men of the wrong class, and that actual ryots must be members, not vakils, merchants, or lawyers. He said that agriculture is work, and that all honest work is dignifying, and advised the teachers to disabuse, by all means in their power, the minds of the students of the idea that agriculture was degrading. He suggested two ways of improving agricultural knowledge, viz., (1) by the Government opening experimental centres, which are very costly and which must be maintained by the Government alone such as Agricultural Institutes, etc., where scientific agricultural education may be imparted. Experimental stations can also be opened by the Government; but what the Government can do is very little when compared with what the people can do for themselves; (2) by experimental and demonstrational plots on which experiments with various crops and manures are made, and which can appropriately be done by agricultural associations, and other less skilled agencies. The cost is very little, and the work, though less accurate, is very educative. He then compared the state of Ireland with that of the Madras Presidency, and said that in the course of a few years Ireland must be prosperous, as up-to-date methods of cultivation are being adopted there. He suggested the appointment of itinerating agricultural instructors who could go about into the interior of the country to instruct the ryots in new methods of cultivation. He doubted whether the village teachers can do much in the matter, but he was sure that they can at least make the pupils observe and think for themselves. He then criticised the views set forth by the various speakers, and emphasised the necessity for a garden in connection with every school. In overcrowded localities where land is not available, pot or basket cultivation may be adopted with advantage. At the same time he said that a garden is useless if the pupils do not use their hands and fingers, and if Nature Study is not improved thereby. He considered the present educational policy of Government as the one in the right track, which must necessarily end in something good and tangible. Though he agreed with the essayist in considering that a farm in connection with each school is necessary, he would never tolerate the idea that any servant should be employed to assist the students. The students must be able to manage the whole themselves.

The sixth conference, over which Mr. E. W. Middlemast, Deputy Director of Public Instruction, presided, was on 'The concrete method of teaching arithmetic' about which a paper was read by Mr. K. V. Rama Row B.A., L.T., of the Government Training School, Bellary. The essayist said that the title of his paper was a misnomer, and that it should have been 'Defects in the teaching of arithmetic to the Primary Classes.' He then complained that as the intellectual attainment of the primary

teachers are low, the subject is generally ill-taught in the lower classes; that slate work is carried to excess; that mental arithmetic is neglected, that the figure, and the number are generally confused, and that village teachers never use the concrete. He then suggested that the curriculum as prescribed in the Educational Rules need not be strictly adhered to; that methods should be well thought out before school work begins and that oriental methods of computation are not now necessary.

In the discussion that followed, suggestions were made to the effect that the methods of teaching arithmetic to the teachers in Training schools should be such as can be easily followed by them in villages; that the objects used as illustrations should be such as can be easily handled by the children and that the ball-frame is perfectly useless as it is not possible for each child to handle it. Mr. Stone said that the elementary principles of arithmetic are badly taught and that the use of the ball-frame, number sheets and the memorising of the multiplication tables are baneful, and that the teaching of arithmetic may be made more interesting to the pupils.

Mr. Middlemast in his presidential speech emphasized the fact that mathematics is no jugglery with figures and that as figures are only symbols, the idea is the best test in a mathematics paper. As regards the place of mental arithmetic, he said that, if properly taught, it is a good means of getting rid of the jugglery of symbols, and that numeration by the bundle system obtains great favor.

The seventh and last conference was held on the 10th January, under the Presidency of Mr. P. P. Braithwaite, of Inspector of Schools, VI Circle. Mr. M. Raghavacharlu of the Government Training School, Chittoor, read a very interesting paper on "The relation of the Training School course to the needs in after-life of pupils of Primary Schools." The essayist remarked that though instruction in general subjects is prominent at present more information under the various subjects is necessary, and that pupils who give up their studies in the elementary stage should be better fitted to discharge their daily duties than they at present are. He declared that at present Vernacular poetry is badly taught and advocated the appointment, at each Training School, of an assistant knowing the various Hindu times. He complained that arithmetic is badly taught and that an ordinary bazaarman does his bills better than a school boy. He advocated travelling, foreign travel and sea-voyages so that better ideas of Geography may be gained by the pupils. He said that every school should be supplied with a magic lantern and an orrery. Regarding object lessons, he was of opinion that they ought to be better connected than they are at present. Lastly, he laid stress on the necessity of teaching improved methods of cultivation, and the preservation of cattle-fodder so that it may help them during famines. He said that an Industrial Section should be attached to

every Training School, and that the course in Training Schools should be complete for pupils who leave them.

In the discussion that followed the following suggestions were made: (1) that the Training School-master must have a better idea of the actual state of Primary Education so that he can combine theory and practice; (2) that the future of the pupils should be first ascertained before determining upon a course of studies; (3) that a knowledge of the locality, and of the more important industries and the co-operation of pupils and parents are necessary before framing subjects of instruction in any elementary school.

In the course of his presidential speech Mr. Braithwaite remarked that the Training School-master can never be blamed for the curriculum he adopts, and that he realised that the Training School course is not at all similar to that of the village schools. He declared that the mission of the teacher is to make his pupil better than what he was, and that between what he assimilates and how much he means to follow lies the missing link. He remarked that the title of the essay was a misnomer, and that though industrial schools may be opened, it is very difficult to persuade pupils to get into them. Finally he exhorted the teachers in Training schools to use their discretion in all that they have to. Thus ended the seventh conference.

As has been remarked before the conference formed an integral part of the Vacation classes, and any unbiassed observer must admit that such meetings have produced immense good. The exchange of ideas, and the thoughtful suggestions that were given out in these conferences have given the Training School-masters a better idea of the work before them, not to speak of their social values. One cannot deny that the contact of the teachers with men eminent in their fields during these conferences, must have necessarily elevated them morally. The intellectual culture, and the moral and social virtues which the Training School-master has gained by his attendance at these classes cannot but react on those with whom he comes into contact in his daily work, and we can be sure that the elementary teachers who are to be sent hereafter from the Training Schools would be better fitted to discharge their duties. We cannot close this article without expressing our admiration of the excellence of the arrangements made for the conduct of these classes which was due to the untiring energy of Mr. Stone, Inspector of European and Training schools, Madras, but for whose earnest and sympathetic efforts elementary education would suffer for want of suitable guidance.

A. B. C.

Education in Madras.

PROGRESS IN 1905-06.

The following are extracts from the Order of the Government of Madras reviewing the Report on Public Instruction in the Madras Presidency for the year 1905-06.

The main events of the year are summarised in paragraph 2 of the Report and indicate a distinct advance in the carrying out of the programme of reform outlined by the Government of India in their Resolution, dated the 11th March, 1904. Among measures which have been under consideration and which have either been carried out, or in regard to which a settled decision has been arrived at, may be noted the changes in the system of Grants-in-Aid and examinations, the most important and far-reaching reform of the year; the altered financial relations between the Department and Local Boards; the revised classification of schools; the inspection, by a special Committee appointed by the University, of Colleges affiliated to the University; and the scheme of reorganisation of the Sub-Assistant Inspectorate. Two new Inspectors were added during the year to the cadre of the Indian Educational Service and a redistribution of circles was made as a tentative measure. The scheme for the reorganisation of the Government Girls' schools was given effect to completely during the year. The system of payment by results and with it the Primary and Lower Secondary examinations were abolished, the Primary examination being replaced by the Elementary school-leaving certificate examination. This in turn resulted in a revision of the Public Service notification under which the Primary examination was a qualifying test for all appointments under Rs. 15 per mensem in Government service except those of menial servants. The special recurring grant of Rs. 6 lakhs made by the Government of India in aid of Primary education has been applied chiefly to the construction of school houses for rural schools under the management of the Local Boards in places where suitable school buildings formerly did not exist, the aim being to provide a simple and useful type of school for the rural population. The Educational Rules and the Grant-in-Aid Code were under revision during the year, while final orders were passed on the new Code for European schools framed by the Government of India and provision for its introduction made from the 1st July 1906. In addition to this, the Senate of the University had under consideration the regulations which it is required to frame under the University Act, and a portion of those regulations so far as they related to the internal organisation of the University were submitted to Government.

The reorganisation of the Engineering College was under consideration and preliminary orders were passed on the report of the Committee appointed to consider the question, while the abolition of the College of Agriculture as a College under the Educational Department and its replacement, in the hope of inducing more attention to the practical side of agriculture, by a College and Central Research station under the Revenue Department were resolved on. The

foregoing enumeration is evidence that the period was one of active discussion and reform in all branches of education.

EXPENDITURE.—The total expenditure for the year direct and indirect, exclusive of expenditure met from the special grant of Rs. 6 lakhs, made by the Government of India in aid of Primary education through the medium of Local Boards, amounted to Rs. 93.69 lakhs against Rs. 80.30 lakhs in the preceding year. The expenditure from Provincial funds rose from Rs. 27.60 to Rs. 28.20 lakhs; Rs. 8.82 lakhs were met from Local, and Rs. 2.58 lakhs from Municipal, revenues; while fees contributed Rs. 29.73 lakhs and other sources, Rs. 24.36 lakhs. The total expenditure classed as direct rose from Rs. 65.68 to Rs. 68 lakhs and there was an increase under each of the heads referred to above. The average annual cost of education per head of population in the year was As. 3—11, of which As. 1—8 were provided from public funds. Fees, the average of which per head rose from Rs. 2.77 to Rs. 2.80, covered 36 per cent. of the total direct expenditure.

The proportion of expenditure on the Primary education of boys to the total expenditure on Secondary and Primary education of boys rose from 84.2 to 85.5 per cent. The Government are glad to note the indication which these figures afford of increased attention to the requirements of Primary education.

As has already been noted the special grant of Rs. 6 lakhs in aid of Primary education was expended mainly on the construction of buildings through the agency of Local Boards. Though the year was somewhat advanced before it was possible actually to allot the amount, yet the progress made in its expenditure may be considered very satisfactory. Out of a total amount of Rs. 5,66,000 allotted to District Boards for this purpose Rs. 5,15,930 was expended within the year. The unexpended balance will be utilised by the District Boards for educational purposes in future.

GENERAL STATISTICS.—The Government regret to observe that, while there has been an increase in expenditure, the same increase in the number of pupils under instruction in public institutions which was so encouraging a feature of the previous year's Report has not been maintained. Public institutions rose in number from 22,012 to 22,411, but the number of scholars on the 31st March fell from 841,034 to 839,910. The number of private institutions increased from 5,636 to 5,847 and the number of scholars from 130,208 to 137,056 and on the whole there has been an increase of 5,700 scholars, but the average number on the rolls shows a decline of 4,000. The retrogression has been most marked in the Presidency town. The percentage of boys and girls under instruction to those of school-going age calculated on the census figures of 1901 fell for boys from 29.1 to 29.0 and rose for girls from 5.2 to 5.4 and this cannot be said to be satisfactory having regard to the concurrent increase in population. The proportion of Lower Primary pupils to the total number rose from 84.2 to 84.5, but in the Upper Primary and Lower Secondary the proportion decreased. The strength of the Arts Colleges affiliated to the Madras University showed a slight decline from 4,539 to 4,401.

PRIMARY EDUCATION.—Public Primary schools for boys rose in number from 20,146 to 20,485, but their strength declined from 665,943 to 664,220. The

Director has ascribed the fall in attendance mainly to the abolition of the Primary examination which had served for a number of years as a public service test. The total expenditure on Primary schools was Rs. 23.84 lakhs and the average cost per pupil was Rs. 3.11-0. The number of teachers employed in public Primary schools rose from 27,051 to 28,019, 46.3 per cent., of whom were fully qualified. The Government hope that with improved facilities for training, with the grant of capitation allowances to trained teachers in schools under public management, and with salaries increasing with better qualifications, the attainments of elementary teachers will reach a higher level. They trust that Elementary education, which will now be under the immediate control of Local Boards and Municipalities within their respective local areas, will be greatly advanced by the special contributions made by Government, by the increased attention which the inspectorate will be in a position to devote to it, and by the freedom which it will enjoy under the new rules from all but the simplest regulations for recognition.

SECONDARY EDUCATION.—The number of candidates appearing for the Upper Secondary and Matriculation examinations showed a slight increase, but the results were again unsatisfactory, only 14 per cent. in the former and 24 per cent. in the latter examination being successful. Most of the failures were in English and general knowledge, and it is certain that this to a great extent is the result of the old system under which sufficient distinction was not made between Secondary and Primary education. Under the new scheme Secondary education will be different in aim and quality from Elementary, and pupils who propose to proceed to higher stages of education will receive from the outset a grounding which, it is hoped, will obviate the unsatisfactory results of the past. The Director will be requested to exercise a careful watch over any tendency to laxity in admissions and promotions. There was a slight decrease in the number of pupils attending Upper Secondary schools for boys from 50,785 to 50,088. The average fee was Rs. 20-1-0 against Rs. 19-10-0 and the average cost per pupil Rs. 40-2-0. The total expenditure from public funds was Rs. 1.66 lakhs. In public Lower Secondary schools the number of boys declined considerably from 44,277 to 42,592; the decline being ascribed mainly to the abolition of the Lower Secondary examination. There has been an increase in the number of teachers due to gratifying efforts to split up the larger classes, and it is satisfactory to note that there has been a more than proportionate increase in the number of trained teachers, 1,544 holding trained teachers' certificates out of 3,243 on the general staff.

FEMALE EDUCATION.—The percentage of girls of school-going age under instruction is still lamentably low, but there was a slight increase from 5.2 to 5.4 per cent. The number of pupils in public Primary schools for girls rose from 46,020 to 47,454. An interesting feature of the year was the success of Brahmin and caste Hindu pupils in the University examinations. It is regretted that the home education classes at Coimbatore were not continued and that there has been a consequent decline in the number of pupils taught in this way up to the Lower Secondary standard,—an experiment to which a special interest was attached. It is also a matter for regret that it was not found possible to award all the scholarships open to Hindu and Mahomedan widows.

SPECIAL EDUCATION.—The supply of trained teachers being of the highest importance, the Government view with pleasure the considerable increase (1,610 to 2,058) in the number of masters and mistresses who attended training schools and improvements as regards accommodation, equipment and staff which have taken place in these schools. They look for good results from the Christmas vacation classes and from the training of special batches of rural teachers, and they are glad to acknowledge the exceptional efforts made by the staff of the Government Training schools on whom the work devolved. The scheme for the complete reorganisation of Training schools for Primary teachers is still under the consideration of the Government of India. Mr. Stone, who was on furlough during the year, was on special duty for a portion of the period, engaged in making a careful study of the working of the Training schools in the United Kingdom. The results of his inquiries have been embodied in a Report which should prove of great value in developing sound methods of training.

The Government note that European education, while advancing in the Elementary branch, remains stationary in the Secondary and that the chief requirement is the need of suitably educated teachers. The recurring grant made by the Government of India is being devoted to the improvement of the pay and prospects of teachers, to an enhancement of grants and the provision of scholarships on a more generous scale.

The examination results obtained by Mahomedan pupils who appeared for the Matriculation and Upper Secondary examinations were very unsatisfactory. The Government are, however, gratified to note the considerable increase from 111,586 to 114,806, in the number of Mahomedan pupils attending schools in the Presidency, the small decrease in the number attending public institutions being more than made up by the increased number of pupils attending private institutions which have also increased.

The extension of Primary education among the Panchama sections for the community is, on the whole, satisfactory, and there was a considerable increase in the number of pupils of aboriginal and hill tribes. A special Conference was held in regard to the education of the hill tribes of Ganjam and Vizagapatam, and a Policy formulated for future guidance.

The Government anticipate useful results from the Educational Conferences held during the year, and also from the Conferences held by Inspectors on their tours. These discussions cannot fail to produce a better understanding of the aims and objects of Government's policy among heads of Colleges and Managers, and are calculated to result in an increased appreciation by the officers of the Department of the intricacy and difficulty of varying local conditions.

The scheme for the organisation of Technical and Industrial schools has not yet been settled, but sanction has been obtained for the appointment of a Director of Industrial and Technical Inquiries, who will, however, work outside the Department as his duties will not be of a strictly educational nature. The School of Arts has not yet been reorganised, but its scope will now be restricted to design and decorative art. The Government, however, have been devoting careful consideration to the development, on a broad and organised plan, of these important branches of education.

HOSTELS—A scheme has recently been sanctioned for the grant of free quarters for not more than the Principal and one professor of a Government College where a proportion of the students live in hostels on condition that they take a definite share in the supervision of the students. It is hoped that this may prove of general benefit to the physical and moral welfare of the students—a subject to which the Report of the University Commission for the inspection of Colleges drew special attention.

Occasional Notes.

INDIAN.

* *

* *

* *

The Convocation of the University of Madras for conferring degrees will be held at the Senate House on March 21st. The Rev. Father Sewell, S. J., will deliver the usual address.

* *

* *

* *

The following gentlemen have been elected to the Syndicate of the University of Madras:—Mr. H. J. Allen, Mr. V. Krishnaswami Aiyar, The Rev. E. M. Macphail, Mr. W. H. James, The Rev. W. Skinner, The Hon'ble Mr. P. S. Sivaswami Aiyar, Mr. R. L. Jones, Col. Van Geyzel, I. M. S., Dewan Bahadur N. Subramaniam and Col. W. Browning, I. M. S.

* *

* *

* *

Managers of aided colleges will be glad to learn that the recurring grant of Rs. 70,000 sanctioned by the Government of India to the Madras Government for five years is intended to be spent in assisting the aided colleges to improve their accommodation and equipment.

* *

* *

* *

Dr. Thibaut and Dr. P. K. Ray have been appointed Registrar and Inspector of Colleges respectively by the Senate of the Calcutta University. Both of them are men of very high reputation, and, consequently, no better selections could have been made.

* *

* *

* *

The Hon'ble Mr. Giles, Director of Public Instruction, Bombay, has left Bombay to take up his acting appointment as Director-General of Education in India. Mr. Giles will hold his new office for about nine or ten months and then retire. Mr. Selby of the Deccan College, Poona, will probably act as Director of Public Instruction, Bombay, and Mr. Bain will succeed Mr. Selby.

* *

* *

* *

Sometime ago Chinese students were flocking to Japan. Of late, students from India, too, have begun to seek education in that country. The number at present is only fifty-four, but there is every prospect of its growing. The reason is this. Since in the motherland small provision is made for technical and special education, Indians seek it abroad and choose Japan as the nearest

land where they can get it, even if they afterwards repair to America, Germany, or England. They seek instruction in engineering or in such trades as pencil-making, tanning, weaving and spinning, and soap-making. The old policy was to favour the British manufacturer by discouraging native industries or passively allowing them to die. A reaction has set in against such an arrangement.

* *

* *

* *

We have received notices of various books for children intended to serve as an introduction to the study of History. These books are of a biographical character and the increasing use of such works is very welcome. The minds of children work through the concrete. Hence the child can take an interest in the career of a great man when the abstract point of view leaves them listless and even averse to the subject. Hence, too, the value of good historical novels which may be used to supplement and make vivid ordinary historical study. It is possible often to correlate the two. In English Literature such works as *Hereward the Wake*, *the White Company*, or *the Splendid Spur* may be read in connection with the corresponding period in English History. Messrs. Jack have now published fourteen volumes of a series of children's heroes, and boys may read with delight the tales of Bruce, Raleigh, or Drake. The series is one which can be thoroughly recommended.

* *

* *

* *

In his address to the students of the Aligarh College Mr. Gokhale describing the function of University education laid stress on three points, *viz*, the promotion of learning, the liberalisation of the Indian mind from the thralldom of old world ideas, and the building up of a manly type of character. The level of western learning, he said, would never become high in India as long as higher learning was represented principally by European professors, who retired from India after their period of service, carrying away all the accumulated learning out of the country. He also pointed out the value and importance of liberalising the Indian mind which resulted from western education and exhorted the students to build up a self-respecting, self-restrained and disciplined type of character.

* *

* *

* *

The formation of character ought to take precedence of the acquisition of knowledge and the sharpening of the intellect. In fact, the acquisition of knowledge should only be a means to the development of character. Mr. Mudie, Glebelands school, Dundee, spoke in a similar strain. The so-called moral instruction given in Indian schools is incidental rather than consciously purposed. The battle of life cannot be successfully fought without adequate moral and mental development. Recent events have shown beyond all doubt that in this direction school authorities have not done as much for the children attending the schools as is necessary—which, possibly, may be due to the fact that this kind of work does not lend itself to measurement. Hostel life, increased supervision of the life of children out of school and a freer and more unrestrained contact of the teacher with the students should certainly bring about better results.

* *

* *

* *

"An educated conscience," says Charlotte Mason, "is a far rarer possession than we imagine; we are all startled now and then by the laxities of right-minded neighbours in matters the right and wrong of which is patent to ourselves; but probably our own moral eccentricities are equally startling to our friends." Alas! too often we see faults in other men and

"Blame the mote that dims their eye,

Each little speak and blemish find

To our own stronger errors blind."

The fault is due to defective education which sets great store by book learning and leaves morals severely alone. A certain rough-and-ready kind of morality does, no doubt, come of heredity; but "an enlightened conscience—that most delicate and beautiful of human possessions—comes only by teaching with authority and adorning by example."

* *

* *

* *

"Students are the future hope of the country", said Mr. Gokhale. More of reverence should dwell in them. In this respect modern schoolboys will do well to imitate the example of their predecessors of a decade or two ago. The value of discipline is not properly realised and there is too much craving for unrealisable ideals.

* *

* *

* *

EUROPEAN EDUCATION IN BANGALORE.

The Hon'ble The Resident of Mysore has issued a circular regarding the improvement of European Education in Bangalore. The managers have, we are glad to learn, received the scheme with feelings of cordiality and thankfulness. European Education has always suffered in Bangalore for want of efficient and qualified teachers. The want of funds has hitherto stood in the way of managers securing good men. Government have now increased their annual grant by Rs. 584; and with the increase in grants we may look for a rise in the standard of learning. Some schools like the Catholic schools and Baldwin schools have secured increased grants, while some others have had their grants reduced. We offer our sympathy to the latter.

H. H. THE BEGUM OF BHOPAL ON MUHAMMADAN EDUCATION.

At the distribution of prizes at the Alexandra Nobles school, Bhopal, H. H. The Begum made a remarkable speech in which she deplored the apathy of Jagirdars towards education. "If," she said, "even after this the people and specially the Jagirdars do not pay sufficient attention to education I shall be compelled to adopt the same strict measures as the Emperor of Japan had done for the weal of his people. It is very deplorable to find that the Mahomedans of to-day do not fully realise the value of education and are heedless of injunctions, even those of their revered Prophet."

"History bears evidence that at some time not only men, but women also were educated in the then existing arts and sciences. Our benign and benevolent British Government has lavishly spent money in establishing educational insti-

tutions all over the country, but Mahomedans do not derive as much benefit from the generosity of Government as they ought to do. Some Native States like Mysore, Baroda and Gwalior are very well advanced, and I hear that the subjects of these States take full advantage of the liberality of their rulers, but I regret to find that my subjects are totally indifferent and averse from education. Gentlemen: It is regrettable that the subjects of Bhopal, owing to their neglect and carelessness in matters of education, should find themselves thrown on the Durbar for help or contenting themselves with small posts in the State.

"I feel sorry when I think how many among my subjects are incapable of holding any posts of responsibility. Under such circumstances I am compelled to call in men from outside to carry on the executive and judicial work of the State, there being a dearth of educated men among the Jagirdars and other respectable families. They are equally averse to trade and industry. Their ease-loving natures have compelled them to give up even their traditional pastime like riding, lance-throwing and rifle practice which are dear to the Afghan. All this is due to a want of education and the only remedy to begin with is that all sensible men should try to turn their sons into good officials and qualify them for State Service by giving them a sound education."

* *

* *

* *

SECONDARY EDUCATION.

"In India, the peculiar difficulties that confront the Government in tackling the educational problem remain still unsolved. But the Government must be congratulated on their thorough religious neutrality in education. That does not alone solve many important and difficult questions in connection with the education of a vast number of people consisting of different tongues and nationalities. First and foremost, the Government of India have not shown till now any courage and statesmanship in grappling with the question which is the key to the other problems of the day. If we take into consideration the three broad heads of education, Primary, Secondary and High, the Government do not seem to be alive to the importance of any one of them, as can be ascertained from their contributions under the different educational heads. It is reassuring to learn that the Government of India are considering how to make Primary education free and we hope compulsory, as well. The policy laid down by the Education Commission of 1882 was detrimental to the cause of Secondary education. According to the Commission, State help is to be granted where local co-operation is forthcoming. The precedence given to Primary education is all right but the relation of the State to Secondary education is anything but satisfactory. We should always bear in mind that good Secondary education is the only solid basis on which higher and special education can be built. For more reasons than one, the urgency of Secondary education forces itself on the people of India. A poor people can ill afford to go through High education. Moreover on this education we have to depend till our technical schools are brought up to the mark. The present condition of things sadly needs a change. And we are glad to notice that the

Government of India are thinking of improving the existing Government schools in Bengal. We fear, the scope of Government is very limited. Not only the model schools belonging to Government require overhauling, but the grants-in-aid system, the relation as established by the Commission of 1882 needs changing too. The mushroom growth and commercial character of private Secondary schools cannot be any longer neglected. Ignorant teachers and low salaries are the bane of Secondary schools, both State and private. It cannot be said that the school fees are low as compared with some of the best schools in the Continent of Europe. We should have such a Secondary curriculum as will fit our boys to take part in the struggle of life just after they leave school. Not only is the standard of our schools low, but our colleges also do not rank above the Public or Board schools in Britain. We want an all-round improved system of Secondary education introduced in place of an effete and worthless system now in vogue."—*The Ray's and Rayjet*.

SECULAR EDUCATION IN INDIA.

MR. PARANJPEE'S VIEWS.

The writer on Indian affairs in a recent number of the *Times* discourses on the want of religious education in our country and the alleged failure of the English system of education. The object of this attack is made obvious in the opening lines of the article, *viz.*, to point out a moral to the rapidly increasing number of those who regard secular education as the solution of all difficult educational questions in England. The article may perhaps do the work intended, but we educated Indians whom it denounces, and particularly people like myself who are doing their little best to further the spread of western education, may take the occasion to ask ourselves whether the facts on which the writer bases his thesis are really facts, and whether after all we have been pursuing not merely a shadow but something more positively dangerous. The writer of the article has taken care to rule out all contrary criticism from the men most intimately concerned in his onslaught by saying that "by all except those who are themselves the product of the system, the verdict is an unfavourable one." I, however, with your permission will use the opportunity afforded by your columns to make a few remarks on the writer's statements.

Two or three years ago, I wrote an article on religious education which was addressed especially to my own countrymen. I make this egotistical reference to rebut the charge of the "militant Hinduism" which the author of the article levels against most educated Hindus. So far from seeing nothing but good even in Thuggism, I feel that lots of things are capable of improvement which several European observers sentimentally like. But with all this it is my deliberate opinion that the secularisation of education in India is one of the wisest steps taken by Government, and it is this which is leading onwards with ever increasing speed to the creation of a nationality in India. There are defects—some of them grave defects—in the system. But secularisation is certainly not one of them.

Curious are some of the grounds on which the writer of the article condemns the present system. One of them is, for instance, the fact that Indians are gradually drifting from a dogmatic belief in their ancient religions. A good case may be made even against this alleged fact. One need only mention the ground that is being gained by new religious sects like the Brahmos, the Arya Samajists the Theosophists, etc. These all point to a closer examination of ancient religious beliefs in the light of modern knowledge and philosophy. If crude superstitious practices are no longer blindly followed, can we call this a great loss to the people in general? It may of course be very uncomfortable for sentimentalists who delight in anything that is only sufficiently odd, to see that such material for the indulgence of their sentimentalism is gradually being lost. It may be rather hard to the official who found it much easier to rule over people accustomed to unquestioning obedience, to have to do with men who can reason. If there is at all a spirit of Militant Hinduism abroad, it is one which claims for philosophic Hinduism its proper place among the serious solutions of the great problems of the world, and is not content with having its beliefs classed among the curious data fit only for theories on aboriginal beliefs. Far from the absence of any struggle in giving up cherished beliefs, we know several who have passed through serious intellectual trouble before they gave up their old beliefs in favour of agnosticism, and some who not being satisfied with the negative creed of agnostics, have reverted to Vedantism and other philosophic system. Compared with the number of Indians who can easily read something better and more serious than current fiction, we believe that the circulation in India of the works of Tyndall, Huxley, Spencer, Mill, Morley, Clifford and others will come out to the credit of educated Indians. Even supposing that educated Indians do drift away from religious and grow indifferent about them can any one regard the subjects that have taken their place in their minds as any the less important? Other matters, says the article, such as politics and social reform or the progress of their community assume greater importance in their eyes. The greater the importance these subjects get the better, say I. There is arising among all educated people a greater desire to see some correspondence between words and deeds, and even militant Hindus are constrained to use halting language in depreciation of social reform, knowing full well that social reform is bound to come from the spirit of the times. All that they can say is that political reform should precede social reform. It is due to absence of religious education in its dogmatic form—without which form I believe, religious education is bound to be altogether a failure even in the opinion of its staunchest advocates—that such reforms as sea voyages, widow-marriages, widows' homes, are meeting with sympathy even from orthodox people.

If Indians feel that there is any department of knowledge, or thought in which they are behind other advanced races it is the department of politics. Their political quiescence was not a reasoned system of political thought, but simply an absence of all political thought. If Indians are waking up to a sense of their deficiency and making it up by borrowing political ideas from the most advanced nation in the world, it is certainly to their credit. It is so when the

phenomenon considered occurs in Japan or Russia or Persia. It may be granted that to a great extent this political awakening takes the form of going "agin" the Government. But is this to be greatly wondered at when there are hardly any avenues open to capable Indians to bring out the best that is in them? Under similar conditions it took an identical form in Ireland, and it is taking an identical form in Egypt. When all that one can do is to talk, it is probable that exaggerations will be indulged in. But if Indians are to be charged with "astounding duplicity" on this account, they certainly share it with a French Nationalist Minister who does not immediately declare war against Germany, a Liberal British statesman who does not immediately bring in a Home Rule Bill, or a President Roosevelt who does not send an Army to coerce the Californians into admitting Japanese children into their schools.

The best antidote to political extremists is political responsibility. We believe it has been observed that Indian members of the Civil Service do not turn a district upside down if it is in their complete charge. It is not because the system of secular education has caused Indian to lose that reverence for authority which they formerly had, but because the knowledge of Western political institutions and ideals have also raised in them corresponding aspirations. The far-seeing statesman of old who originated this system welcomed the advent of the day of such an awakening, but now that the dawn of such a day appears nigh, we find their descendants bemoaning this catastrophe and trying their best to delay it."—*Mr. R. P. Paranjpye, Principal, Fergusson College, Poona.*

[We regret that for want of space we have to hold over till the next issue Mr. Yates' report on the Progress of Education in the First Circle. Editor.]

Occasional Notes.

FOREIGN.

SPELLING REFORM.

* * * * *

Mr. Andrew Carnegie has made a donation to the Paris University yielding £ 500 a year to be devoted to scholarships for scientists engaged in original researches.

ASSISTANT MASTERS IN THE SECONDARY SCHOOLS OF BRITAIN.

The position of assistant masters in the Grammar Schools of Great Britain seems to be very precarious, judging from recent events that have occurred in the Richmond Grammar School, Yorkshire. A new head master was appointed in September last, and he decided to begin his administration with an entire change of staff. The assistant masters were turned out in the name of 'efficiency' with only ten days' notice. We have no information as to who are

responsible for this drastic measure, whether the head master did it himself or whether the governing committee are responsible for it. If it is the head master's action, a very important,—and to our mind, novel,—principle is introduced, viz., that assistant masters are left to the tender mercies of the head master. Fortunately no such principle guides the educational bodies in India. It is one thing to admit that on certain occasions a change may be necessary in the staff of a school, but it is quite a different thing to hold that assistant masters are the servants of the head and that the tenure of their office is dependent on his good will. A procedure of this kind cannot but be productive of mischief, as it tends to destroy all continuity of life in a school. Furthermore, there is the evil of the unfortunate assistant master "seeing an enemy behind every bush" and rendering him unwilling to take up service in an establishment which may take the first opportunity of turning him out of doors. To quote the evidence given before the Royal Commission on Secondary education: "The system of dismissal at pleasure is felt by assistant masters as the keenest disability under which they suffer. Their salaries are low, but they feel much more keenly the system of dismissal at pleasure." The argument that the head master must be "captain on his own quarter-deck" can scarcely hold water, as a school is not a man-of-war. If the question remains undecided or if the verdict is against the assistant, then surely the profession is bound to deteriorate, and really good men will keep it at arm's length.

Throughout the English-speaking world a strong movement is set on foot to introduce a phonetic alphabet for English. Principal Donaldson of the University of St. Andrews delivered an address on this subject last month condemning the present system of spelling and urging reform. Quoting Max Muller, he said, "It is, I believe, hardly necessary that I should prove how corrupt, effete and utterly irrational the present system of spelling is; for no one seems inclined to deny all that. I shall only quote the judgment of one man, the late Bishop Thirlwall—a man who never used exaggerated language. 'I look', he says, 'upon the established system, if an accidental custom may be so called, as a mass of anomalies, the growth of ignorance and chance, equally repugnant to good taste and common sense'." Dr. Donaldson referred to the labours of Pitman, Watson and others in this direction. His arguments in favour of the phonetic method are three, viz (1) It is a quick method; "children can learn to read by a phonetic alphabet in a quarter, a third, or a half of the time required when a non-phonetic alphabet is employed." (2) It would help much in our government of colonies and dependencies. Every citizen of the British Empire should learn English, and the greatest obstacle to this is the alphabet. He instanced the case of Egypt, where in 1881-2 he found no newspapers in English to contradict seditious articles written in French newspapers. (3) There is no common language used for science, scholarship and other departments of intellectual effort. English is often mentioned as a probable common vehicle of scholarly and scientific work, but then it should be spelt phonetically. He referred to the labours of Dr. Murray, "who has devised a phonetic alphabet which has so gained the approbation of scholars that it has been used in nearly all recent dictionaries. Every work on phonetics must have a phonetic alphabet, and the alphabet which is in general use comes very

near to that of Dr. Murray. Works on phonetics are now recommended because they are believed to be of great use in facilitating the acquisition of modern languages, and accordingly phonetic alphabets are prepared for French and German as well as for English, and these alphabets also approach nearly to those of Dr. Murray. There has thus arisen a decided consensus of opinion as to what the phonetic alphabet should be, and the Education Department could, therefore, easily obtain a committee of men who could produce for it a satisfactory scheme." The Senatus of the London University has taken up this subject in an earnest spirit.

* * * * *

After July next, Geography will cease to be a subject of examination for the English Foreign Office and Diplomatic Services. On this *The Times* remarks: "The gentlemen who are to look after the diplomatic interests of an Empire on which the sun never sets are to be set to work without any guarantee that they may not be profoundly ignorant of its component parts, their distribution, their physical features, and their relations in space to the territories of other nations." The procedure of the Foreign Office in this respect is astonishing, but even more astonishing is the plea of Sir Edward Grey, who says that geography is a subject with which men of general education are generally acquainted, and which is easily acquired after entry into the Service." The statement contained in the last clause is remarkable. Very few men take the trouble to learn the broad outlines and principles of a subject that they did not study for an examination. Further, the grind a man has gone through too often leaves an enduring distaste for anything resembling it. The syllabus excluding geography was drawn up in consultation with the highest authorities of Oxford and Cambridge, at the very moment when the Universities, both old and new, are giving geography an honoured place in their curricula!

* * * * *

One or two instances of the disastrous results of the neglect of modern geography are interesting. "At the settlement after the great war we lost Java," says Major-General Russell, "because Lord Liverpool did not know where it was. 'Java! where is Java?' said Lord Liverpool, 'Let the Dutch have it.'" Similarly Chandranagore was lost, because the minister of the day did not know where it was and thought it was one of the West India Islands! Maine was lost from a similar ignorance of geography. The same may be said of Delagoa Bay. A former governor of Mauritius once said that when he applied for the service of a Medical Officer for the Seychelles Islands, where an epidemic had broken out, he was informed by the Colonial Office that his own medical officer could visit these islands once a week and that thereby the extra cost of an additional doctor could be avoided. The governor replied that the suggestion was excellent, only there were practical difficulties, as the Seychelles Islands were over 900 miles distant from Mauritius. What has Sir Edward Grey to say to these instances?

DRAMATIC REPRESENTATIONS BY SCHOLARS.

The "Sussex Daily News," of recent date, contained the following :—

Something has been heard of late of the Dramatic Revival Society, in which Mr. F. R. Benson, of Shakespearian fame, Mr. W. T. Stead, and Mr. E. H. Burrows (Inspector of Schools for Portsmouth and West Sussex), are, among others, greatly interested. It exists to restore to the everyday life of English folk the four great instruments of innocent mirth and popular culture—the Dance, the Song, the Pageant, and the Drama. Its first object is to encourage amateur dramatic representations throughout the country, especially in villages by the villagers themselves, and in schools by the scholars for the purpose of education and recreation. "Our Elementary Schools," the society declares, "will never truly succeed in stimulating the sluggish mind of our youth until the Drama's all powerful assistance has been completely recognised and guaranteed." In the village school of Sompting, situated in the very midst of an agricultural district, the scholars are actually taught through the medium of the drama, the dance, and the pageant.

Expounding her system to a representative of the "Sussex Daily News," Miss Johnson, the mistress, said :—

"If we can make use of the dramatic method, educationally and not for display, if we can teach children something by means of demonstration and get them to think and act for themselves, then the thing is worth doing, and the ratepayers should not object, for they can see the results. *Because certain methods of teaching were adopted in the beginning of schools we have been blindly following them ever since.* In the past books were not given their due place; they were made the end and not the means. The children were not taught to speak originally by reading. It has been said that language is the vehicle of thought. If children never speak their language themselves—which they seldom do in school—how are we to know what they really think? If we can get children to talk naturally and to throw themselves into a part enthusiastically and yet in discipline, we have at least accomplished something—we have found out what they are thinking and can correct any wrong idea."

Sompting School enjoys the distinction of being, most probably, the only one in England where the dramatic method of tuition is employed throughout. Certainly nothing of the kind is attempted in any other school in Sussex. The children learn history and geography by acting; literature by the same means; and, strange as it may appear, arithmetic and spelling by dances. In the study of geography and history the children impersonate the character and act the scenes they learn, instead of reading up the lessons from the books in the old orthodox way. In history some particular personage or period is chosen; the mistress reads to the scholars the historical details, and, after the story has been well "worked up," they perform an improvised play. There is no written text; the scholars make up their own speeches, and show an eagerness to thoroughly understand the character they personate. Miss Johnson is quite opposed to any suggestion of acting for display in school hours, and, to ensure that the method shall

be strictly educational, no "dressing up," in the way of costumes, etc., is permitted. It is necessary, however, to distinguish the characters to some extent, and for this purpose coloured paper is utilised in the shape of a crown for the king, and other "properties." It is claimed for the system that historical episodes are more deeply impressed on the minds of the children when they have enacted the characters for themselves.

The assistance of the drama is also invoked in the teaching of geography. Some particular country is taken, and after initial study the children act the life and the customs of the people. They act literature in the same way, and are at present occupied with the characters of Dickens. In the infant department the system of making the little ones see and feel what they are doing also prevails. With figures and letters attached to their clothes they learn their sums and spelling, and work out the problems by choosing their partners for a dance, and if they choose a partner whose figure or letter makes up the combination required, they are rewarded by being allowed to go through the dance.

*NATURE STUDY.

But the dramatic method is not the first departure that has been made at Sompting from the old school system. Ever since Miss Johnson and her sister—Miss E. R. Johnson, who assists her in the work—took charge of the village school, Nature Study has been a strong feature. Miss Johnson told the *Sussex Daily News* representative that the whole system of education at Sompting was, at first, based on Nature Study, and it was only because of the difficulty of teaching history and geography on these lines that she introduced the dramatic method. "Nature rambles" over the Downs are one of the regular features of school life, though in the winter they are only held once a week. Following the ramble, the children write an account of all they observed: they also paint or draw flowers, or leaves, and the best efforts are hung on the walls of the schools. "Nature specimens" play an important part in the lessons. The children's Nature Study books, containing their essays and paintings, are well worthy an inspection.

Attached to the school are some pretty flower plots, in which the scholars themselves work in pairs. One lesson a week is given in gardening, but a great deal more is done in the children's spare time. Some of them have started "road side" gardens of their own. Summing up the results of nine years' Nature Study work, Miss Johnson has declared the chief outcome to be: "Greater powers of observation and reasoning by the scholars; a keen interest in all that concerns school life, and the disappearance of all need for corporal punishment." "I have always had an idea that one ought to train the artistic and the human side," she observed. She realised that education must be suited to the locality, "but," she added, "even an intelligent ploughboy is better than a dull ploughboy and they don't all want to remain on the land."

Miss Johnson was in North London before taking over the work at Sompting some ten years ago. She has always adopted "Nature methods" as much

as possible in teaching, though in London there were restrictions which naturally do not apply in the country. For over three years Miss Johnson has been following the dramatic methods, which were, she believes, quite new and original when first adopted by her. Lack of interest by the children in some up-to-date new history books resulted in the "history play" system being started. Miss Johnson has been much encouraged by the testimony of parents and residents in the locality as to the results of her system. Some of her boys, she proudly claims, have been placed in positions requiring intelligence, and the girls have made better servants for being intelligent and cultured. The parents take an interest in the studies, and are in sympathy with the methods. The authorities also have shown appreciation of the efforts, and the recent reports of H.M. Inspector testify to the efficiency of the methods. But it has been an uphill task, Miss Johnson admits, to break down the old uninteresting routine in educational work.

THE GERMAN UNIVERSITIES.

RELATIVELY to the State, the German university stands midway between the complete autonomy of the English university and the State-servitude of the French *faculté*. Its professors are appointed and paid, and their activity is supervised, by the Government. At the same time it is a free scientific corporation. Its atmosphere is intellectual liberty. Its students are not, like those of Oxford and Cambridge, hampered in the pursuit of truth by social and ecclesiastical prejudices.

As its atmosphere is freedom, so its goal is, in the wider sense of the word, science. It is both an academy (an institution for the extension of scientific knowledge and the organisation of scientific labour) and a school, and it is the former characteristic which tends to be emphasised. As a school its prime object is not the professional training aimed at by the French *faculté*, nor, as here, the satisfaction of a social demand for a certain breadth of culture. It comprises both these, but its prime object is science, science as the means to the acquirement of an independent judgment, that is, to the emancipation of manhood.

Another "note" of the German university is its claim to the intellectual leadership of the people. The terms professor, and scholar or investigator, are almost always implied in one another. The university is the brain of the nation. So, too, it claims to act as a public conscience, an office which the Church, immersed in the struggle for power, has abdicated. The man in action, says Goethe, is always without conscience. It is the scholar alone, withdrawn from the turmoil, who can appreciate human values; and these days of supersensitive nationalism increasingly demand this guidance of the spiritually free.

So far the ideal; but in Prof. Paulsen's pages, as so often elsewhere, there is sometimes heard a note of foreboding. The old simplicity of German life is gone, and the change is reflected in education. Student-life has lost much of its former democratic character. In the greater universities, large salaries, the adoption of the customs of fashionable society, and the love of titles and decorations have broken down the old intimacy between teacher and pupil.

The flaws in the system itself are discussed by the author with much candour. Extending his purview, he notes the gulf fixed between the gymnasium and the university; on that side restriction, and over-pressure resulting in "school-weariness"; on this side liberty unrestrained. In the university, idealism has its natural offset in what in England we should call a certain want of practicalness. Professional pride tends to merge the teacher in the investigator pure and simple; and this, and the extremely abstract character of the work, tend in turn to an undue narrowing of the scope of education. Of schoolmasters in particular it is complained that they are too often mere technical specialists.

Such is the *substantifique moelle* of Prof. Paulsen's book, almost in his own words. It is a work which no one interested in education should neglect. Perhaps its chief merit lies in its grasp of principles, and its lucid exposition of them, so that the reader will hardly close it without feeling that his opinions have gained in precision and unity. The treatment is always historical and to some extent comparative. The book, which is never dull, is a model of clear arrangement, and it has a serviceable index and a bibliography.—*The School World*.

THE LATE DR. HAIG BROWN, HEAD MASTER OF CHARTERHOUSE.

The following few facts regarding the late Dr. Haig Brown, one of the great headmasters of the nineteenth century will be interesting to those engaged in the work of education.

He was universally loved and respected like Thomas Arnold of Rugby. His penetrating eye never failed to notice the slightest lapses of duty on the part of his pupils. "His dignity", says an admirer of his, "seemed to express the precise relation which ought to exist between boys and headmaster. It was essentially a dignity unclouded by those personal foibles and eccentricities which arouse the scorn of the big boy and the mischief of the small one." To the older boys the Doctor always extended a measure of confidence which was invariably respected, never abused. With the instinct of a great reader of character, he knew precisely when a boy ought to be left to fight his own battles and when he required help and advice. He knew every boy in the school by sight and name. But more than that, whenever his pupils came in contact with the Doctor, they felt that the strength and weakness of every one of them were known to him, as though they and they alone, had been the object of his care. He was thoroughly just in his relations with them, entirely free from favouritism and ever set up before himself a high ideal of personal character and thereby established between himself and Charthusians perfect relations of friendly confidence which extended far beyond the limits of school life.

He had not much faith in 'educational science'. He refused to recognise utility as the object of school life and was a devout admirer of classical studies. But his fame rests on the removal of Charterhouse from London to the country.

* * * * *

In the course of a lecture delivered by Professor Earl Barnes, on American Education in Harrow School-Hall, he said that since 1870 England had created

a compulsory form of education (an education of the mind for utilitarian purposes) which was the greatest educational change known in history. But behind and around this system was one a thousand years old, born of the soul of the people. America had but one system, and it was born of ideas. The principal line of cleavage between English and American educationalism was caste, and although the caste system had the value of producing a fine flower at the top, Americans had what they considered the more solid value of a splendid mediocrity. He was impressed with the fine flower of education, but democracy was always afraid of geniuses and looked upon them with suspicion. A second line of cleavage was religion. In America, State education had been secularized to a degree, and in the State Schools of the Union one would not be permitted to make references to the Bible, even to a class on comparative literature. Family considerations doubtless had their effect on English methods, and even at Harrow he was told the parents kept a very sharp eye on their children. That, he thought, was splendid in its way, but from a psychologist's point of view the parent was less intelligent about his own child than about other children; and just as a highly skilled medical man would not treating his own wife and child, so should the parent, psychologically speaking, leave the education of his own children to those who were more expert, because less deeply stirred, in their emotions than he. The subject-matter of education in the two countries was different. Manners and morals dominated here, but in America mental exercises took the first place. English educational work was intellectually slow, while American was quick, sharp, and insistent. At America's best she produced a Roosevelt; at her worst a skilful swindler; England's best would be a Lord Shaftesbury or a Lord Kitchener, while her worst would probably be a comfortable clubman. Discipline, again, provided a point of difference. In England they cultivated the will, while in America they cultivated the feelings. In conclusion, the lecturer, looking round at the magnificent School-Hall, so rich in proud memories, said there was no computing the value of such a room to the people of America if only it were possible to make it organically related to the life of her people, but they, alas, had no such historic associations. The Headmaster, in proposing a vote of thanks to the lecturer, said he could not agree with all his remarks and with all his deductions. As to the interference of parents with teachers he could quite agree. A boy could be managed easily, masters were fairly easy to manage, but parents were frankly impossible. As to the School-Hall, it was their pride to remember that it was organically connected with the life of the great American nation. From that room and similar rooms they had sent out the men who founded the nation, and it was probable even that some Pilgrim Fathers were educated in that very hall.

*
**

*
**

*
**

Even in Great Britain the teaching of English in secondary schools has been pronounced to be unsatisfactory. The efficiency, well-being and intelligence of the nation is said to depend upon the organisation and development of the education given in the secondary schools. The Inspectors of the Board of Education have pronounced the bad teaching of English to be the most serious and the most widespread defect in the schools. The teachers are not qualified

to teach it; too little time is given to the subject; too little attention is given to reading; the recitation books are not well chosen, or they do not exist at all; there is no instruction except in formal grammar; and more than everything else, there is no graduated course of study." This is a very serious indictment, and the situation calls for immediate reform.

*
**

*
**

*
**

Apropos of the subject of English teaching, Mr. Arthur Burrell, Principal of Borough Road Training College says, "We all want it taught well, if it can be taught; we all recognise that it is our sheet-anchor against the materialistic view of education". In a short paper on "The pitfalls of the practical teacher of English," Mr. Burrell discusses the causes of bad English teaching and suggests remedies. We here summarise his views for the benefit of our readers. Boys like reading, love to hear stories and to tell stories. But few schools have a good library. Given plenty of good reading matter, a large amount of reading (aloud), reading at ease, uninterrupted by questions, should be insisted on, for this will improve the pupils' power of oral composition, that is, description. This will do away with the necessity for teaching grammar and written composition. Further, oral composition will help the exact use of words, improve syntax and add to their vocabulary. Much good prose and verse should be committed to memory and there should be the copying of such repetition into commonplace books. The objection to making children learn prose by heart is absurd and the modern doctrine that verbal memory is of no value is mischievous. As regards teaching English to the young man and young woman, the difficulties are of a threefold nature, viz, the absence of good teachers, the erroneous belief that the study is not worthy of them, and also the belief that it is the monopoly of the well-to-do and leisured classes. Let the few good teachers, he says, train up others. Definite advantage should be shown to result from the study of English. Chronology should have no place in literature. The patriotism of a Briton may be nurtured on the history of Brasidas as well as on the biography of Nelson. Dictated criticism is pernicious, especially to the immature student. The teacher of advanced English may take up the intricacies of syntax, the life of words, the charm of the dissection of style, the exact study of the art of rhetoric and even the doubtful pursuit of theories of metrics. We shall conclude the summary in the author's own words. "If I may be allowed to summarise and respectfully point out that, though I have not labelled the pitfalls in my paper, they are there, concealed, it may be by brushwood, I would say, as many other more experienced and successful teachers have often said before, that brilliant work in English is carried on by enthusiastic teachers in unnumbered schools; but that the practical teacher often is too anxious to follow by-paths, and will not keep to the high road of the text from which he and his class may view the surrounding country, that he does not remember that English may be learnt, but not taught; that he expects the full corn before the blade; that he has no apparatus at hand (texts, pictures, prints, facsimiles), and that he asks for none; and, finally, that he does not know his lessons and his subject so well that the virtue of it goes out to all who touch his garment. We have too long blamed the schoolboy and the schoolgirl, primary and

secondary, for telling us that English classics and English subjects are dry. We ought to be proud of it; they are dry; for it is we who have dried and tinned them”.

INDIVIDUALISM IN EDUCATION.

By H. BOMPAS SMITH, M.A.

It is much to be desired that before public men enunciate theories on education, they should at any rate acquaint themselves with the best current thought upon the subject, and not produce their private lucubrations as if definite educational principles and ideals had not been established by the work of centuries. A favourable specimen of such irresponsible theorising is the speech delivered by Mr. Wyndham after opening some new buildings of the county school at Hawarden. As reported in the *Times*, Mr. Wyndham discussed, among other things, the reasons for the existence of such places of education, or, in his own words, the grounds upon which to build a justification for the enormous sums of the taxpayers' and ratepayers' money which were rightly devoted to the education of the children of this country. The reasons he gave were three. One was “to prevent uncommon talent and genius being overlooked.” Then, “Next to the discovery of genius, one of the chief justifications of education was that it enabled all to secure at an early age an independence in life.” But, thirdly, “the real justification of education” was that it “gave an opportunity to all.” “Education existed in order that the blossoms of intelligence in every mind should have a chance of unfolding in the air and the light of a liberal understanding.”

Now whatever we may think of the early independence, we shall agree that the discovery of genius and the cultivation of intelligence are desirable objects in a school, but what I complain of is that Mr. Wyndham stops here, apparently unconscious that he is upholding the individualistic theory which has been the bane of English education, and on which in another connection the vials of his own wrath have been poured.

Mr. Wyndham's theory in fact dates from the great individualistic revival of the Renaissance and the Reformation. The conception of the purpose of a school which then arose found its most typical exponent in John Locke, who, following it out to its logical conclusion, held that, given money enough, there ought to be no schools at all, but only private tuition for individual boys. For Locke took very seriously the view that, in Mr. Wyndham's words, education ought not to give “an opportunity for making everybody as like everybody else as was possible,” holding that its object was rather the development of the special characteristics of isolated individuals. Again, when Mr. Wyndham says that “it was right that science should be included in the school curriculum, because they were living in an age of science,” and that “he was glad that French was taught at that school, because that language belonged to people endowed with radiant intellect,” he is only repeating in very much worse English what Locke wrote more than two centuries ago.

The strength of this whole point of view is its recognition of the truth that the complete development of each individual's powers is the necessary condition

of his full efficiency, and that any sacrifice of this efficiency to social conditions or to tradition involves a waste of power. Its weakness is its treatment of each individual as an isolated unit, and its neglect of the social aspect of all development. Its fortunes were bound up with those of the phase of thought which culminated in the enlightenment and which lived on in England in the school of Bentham. Benthamism is now practically dead in all spheres save that of education, where its survival is a proof of the disastrous failure of our popular writers and speakers on schools and teaching to keep abreast of the progressive thought of our time.

For all through the nineteenth century there was growing up a body of opinions in all departments of experience, of which the characteristic feature was the emphasis laid upon the social aspects of human life, substituting historical evolution for mechanical causation and recognising instinct and emotion as springs of action co-ordinate with reason. And this vein of thought and feeling gave rise to a new conception of the purpose of our schools. It began to be said, or more often felt, that the school work was inadequately appreciated if it was held to consist in the intellectual training of boys and girls as individuals, even if it made them earlier independent, or gave them a better start in life. The school came to be considered as also a social institution by means of which the higher life of the community was conserved and handed on. Its purpose was therefore the enabling of each generation to appropriate the wealth of knowledge and insight gained by its predecessors, in order that it in turn might carry on the torch of culture. The schools are necessary instruments for preserving the continuity of life of the spirit. If all our schools were suspended for a generation, the result would be a breach in our intellectual life, which it might take centuries to repair. It has been said that a boy learning his Latin grammar is really helping to perpetuate the spiritual achievements of the past, little as he may understand the significance of his employment, and the same thing holds good in respect of his assimilation of the ethical standard of his time as mediated by his school.

But it may be asked, what practical difference does it make whether we do or do not accept this wider point of view? To which the answer is that the two conceptions, the individualistic and the social, involve not only a difference in the atmosphere of our schools, but diversity of methods, of internal arrangement, and even external organisation, as may be seen by any one who will compare the school systems of the eleventh and the eighteenth centuries. For the sake of brevity I will sum up the difference in antithesis which in any adequate discussion would demand much qualification. On the one side the tendency is to emphasize intellectual training, the subjects being by preference realistic; knowledge and accomplishments are looked upon as possessions of the individual; there will probably be some form of social exclusiveness, personal rewards, individual examinations, and the neglect of corporate life, while the schools will tend to be mutually independent. On the other side stress would be laid on the training of character; knowledge would be regarded as a common stock to be used for the general benefit; the school would be open to all classes; there would be corporate examinations and rewards, a highly developed social life, and the school system would be organised on a national basis.

THE TYPE IN SCHOOL-BOOKS.

By R. T. WILLIAMSON, M.D. Lond., F.R.C.P. Lond.

Lecturer on School Hygiene and in Medicine at Victoria University, Manchester.

THE vision of many school children and college students is defective owing to myopia. In a private boys' school which I recently examined 23 per cent. of the scholars were myopic; and of fifty-five students who have just entered the department of education of the Victoria University (for training for school teachers) fifteen are myopic—i.e., 27 per cent.

Though there is a difference of opinion as to the production of myopia, there can be no doubt that prolonged eye strain during school life often causes or increases this defect. Many ophthalmic surgeons regard this eye strain as the most important of the causes of myopia. The whole subject has been carefully studied by many observers, and by no one more thoroughly than by the late Prof. Cohn, of Breslau. Space does not permit any account of his conclusions, but they furnish the strongest evidence of the injurious influence of severe eye strain during school life.

One important factor in the causation of this injurious eye strain is the bad type of many school-books, and it is very desirable that more attention should be devoted to this subject by those who have the supervision of the education of school children and college students. A small, bad type in school-books and college text-books not only causes eye strain and tends to produce myopia, but also, owing to the eye strain caused by reading such a type, there is often difficulty in concentrating the attention on the subject of study and diminished interest in it. For these and other reasons it is most important that the type of school-books and college text-books should be tested, as is done in some Continental towns, and when it is found to be defective an endeavour should be made to obtain books printed in a satisfactory type. Of course, it would be absurd to choose books for study simply on the merits of the type; but when the type of any desirable book is found to be defective, if the authorities of the school in which it is used strongly urged the publishers to print the work in a satisfactory type, there is little doubt that this would be done, especially if the school authorities clearly intimated that the use of the work would be discontinued if the type were not improved.

There are many points of importance with respect to the printing of books in order that those who read them may not suffer from eye strain. These are given in the various works on school hygiene. Prof. Cohn has discussed the whole matter most thoroughly in his work on the subject. In this short article I wish to refer only to the size of the printed letters and the distance of the lines apart. There is no absolute rule on these points, but the minimum size of type which Cohn would allow may be taken as a fair estimate for practical purposes, and I think that probably most of those who have studied the subject will allow that no type should be employed for school-books and text-books which is smaller than Cohn's minimum.

The type of school-books has certainly improved very much in the last thirty years. In 78 per cent. of a series of old school-books, printed between 1870 and 1878, the type was defective—i.e., three lines or more were seen in the centimetre square. In the 250 modern school-books which I examined the defective type was met with most frequently in books on mathematics (arithmetic, algebra, trigonometry, &c.). In 67 per cent. of the books on mathematics the type was defective. The small, cheap elementary works on science had also very frequently a defective type. Books on history, geography, travel, and books of general information were usually well printed, and so were the elementary reading-books for the junior classes. Many of the books of this class were beautiful specimens of the printer's art. But in cheap editions of poetical works and of standard English literature the type was often very small and defective. Particularly defective was the type of a large number of the very cheap editions of well-known novels (in school libraries) which are so eagerly read by the school-boys and youths. Interesting books of this kind are specially liable to damage the eyes if printed in very small type. One of the worst printed books examined was a very cheap edition of "Robinson Crusoe" for schoolboys. I have tested the type of forty books in the library in the reading-room of a large hotel, the books being chiefly cheap editions of standard English authors. The type was particularly bad. In twenty-three out of forty it was defective. The worst was an edition of Shakespeare, in which there were six lines of type in the square centimetre; and many poetical works had four lines of type to the centimetre square.

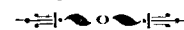
Often the type of the Bibles used by school children is exceedingly small; frequently there are six or seven lines to the square centimetre. Of course, Bibles are printed by the British and Foreign Bible Society in all sizes of type, and cheap Bibles can be obtained for schoolboys in satisfactory types, whilst other school-books are usually printed only in one type. There are good reasons, no doubt, for the printing of some Bibles in very small type, but the Bible Society would do well to issue "school Bibles" printed in a type not smaller than that of Cohn's minimum (two lines in the centimetre square). Atlases are often printed in a very small type, and the maps crowded with names. Often the height of the letters is only 0.5 of a millimetre, and often five or six names can be seen in the square centimetre, in addition to the indications of rivers, mountains, boundaries, &c. This, of course, causes great strain to the eyes of the pupils. It is most desirable that a larger type should be used in the atlases for school children, and that fewer names and details should be given. In most of the maps printed by the Royal Geographical Society (in the *Geographical Journal*) the type is much larger and clearer, though many of the less important names are printed in a type a little smaller than Cohn's minimum. These excellent maps might be well adopted as a standard of the minimum size of printing for school atlases.

There are many other points of importance in the printing of books which space does not permit to be considered in this article. But the figures which I have given show clearly that, apart from other defects, the size of the type and the distance between the lines in a large number of school-books are too small if

the minimum of the best authors be accepted. Apart from actual measurements, in many of the school-books examined it was evident from simple inspection of a printed page that the type was too small to be read for any length of time without great eye strain.

Since so much attention is now being directed to school hygiene, and since we have in Cohn's square-centimetre test such an easy method of detecting the two most important defects of type (size of letters and distance of lines), it is to be hoped that the printing of school-books will receive more consideration in the future. If those who have the supervision of the education of school children and students demanded that the type of school-books should be satisfactory, the risks of eye strain and myopia would be diminished, and the study of many books would be made easier.—*The Lancet*.

V. Kalyānaram Iyer & Co., Booksellers, Madras.



The Best & Cheapest set of English Text Books.

FIRST EXAMINATION IN ARTS, 1907.

POETICAL SELECTIONS FROM GRAY, TENNYSON AND BYRON.
Containing the Elegy, Aenone, The Lotos Eaters, Ulysses, The Prisoner of Chillon, and the Ode to Napoleon, with Full Introductions, Complete Notes, Paraphrase and Appendices, by the late R. S. SHEPPARD, revised and edited by CECIL M. BARROW.

Full cloth, Rs. 2 0 Stiff boards ... 1 12

FRUDE'S ENGLISH SEAMEN IN THE XVIIth CENTURY. 2 3

Do. Notes on Three Lectures by Mrs. and Mr. Barrow ... 0 12

SCOTT'S KENILWORTH, (paper) ... 0 5

Do. (Victoria Edition) ... 0 15

Do. with a beautiful Collotype portrait of Amy Robsart, a neat and handy vol. printed in good clear type and strongly bound in full cloth published at one shilling ... 0 4

Do. with Notes (Macmillan's Edition) ... 1 9

Do. Do. By Flather ... 1 9

FULL NOTES ON KENILWORTH, with introduction, appendices, etc., nearly 500 pages, by the late R. S. Sheppard, a new and revised edition complete ... Rs. 2 0

While the name of the R. S. Sheppard is a sufficient guarantee that this annotations are scholarly and accurate and thoroughly helpful, the notes on Kenilworth are particularly exhaustive and clear; no difficulty has been passed over, no needed explanation omitted, and no allusion or reference left unexplained. The introduction contains a Biographical sketch of Scott, Critical observations on the Waverly Novels from Hazlitt, Hutton, Bagehot, Carlyle and from other sources, accounts of the chief Historical Characters of the Novel, and a critical sketch of "Kenilworth" Appendix I, contains Biographical Notes regarding persons mentioned in the Novel, and Appendix II contains explanatory etymological Notes.

To facilitate the use of any edition of the Text, the notes have been numbered according to the paragraphs.

SHAKESPEARE'S JULIUS CAESAR, edited with Introduction and Notes by VERITY. ... 0 15

Do. by ALDIS WRIGHT, reduced price ... 1 0

Do. ROLF, Special Indian Edition with additional

Notes for Indian Students, Complete ... 0 6

Do. WINCKLER. New Edition ... 1 4

All the Tamil and Sanskrit Texts for the F. A., and B. A.,

1907 & 1908 are available at published prices.

MANIMAKALAI KATHAI CHURUKKAM, Tamil Prose for F. A. 1907. annas 8.

PURANANURU, etc. for B. A. 1907, Rs. 1—4—0.

B. A. DEGREE EXAMINATION, 1907.

ALL THE MINOR SELECTIONS IN ENGLISH POETRY FROM GRAY, COLLINS, BURNS, SHELLEY, WORDSWORTH AND TENNYSON, complete with Introductions, Full Notes and appendices consisting of over 400 pp., by R. S. SHEPPARD & CECIL M. BARROW.

The COTTAR'S SATURDAY NIGHT, The SENSITIVE PLANT and TINTERN ABBEY have been annotated by Mr. C. M. BARROW, M. A., and the notes on the other poems by the Late R. S. SHEPPARD, B. A., have been revised and edited by Mr. Barrow, both of whose annotations are well known for their accuracy, completeness and special usefulness to Indian University students.

The introduction contains concise biographical memoirs, and critical extracts from eminent writers, carefully selected with a view to an appreciative study of the poet's works in general and of the selected poems in particular. There is an analytical argument, as well as a clear paraphrase of WORDSWORTH'S philosophical ODE. On the Intimations of Immortality, which will prove of special use to students in trying to understand this difficult poem.

Cloth, Rs. 3—4—0, Paper Cover, Rs. 3—0—0.

SHELLEY'S ODE TO A SKYLARK, HYMN TO INTELLECTUAL BEAUTY, AND THE EUGANEAN HILLS, with introduction and full explanatory notes by J. Creighton—6 annas.

CHAUCER'S SQUIERES TALE, with Introduction, 55 pages containing Biographical Notice of Chaucer, account of the Canterbury Tales, their number order and Classification, criticisms on the Squires Tale, and Explanation of Chaucer's Grammar and Versification and Critical Observations on Chaucer's poems and Full Annotations by the late R. S. SHEPPARD, B.A., edited and revised by C. M. BARROW, M.A., Price annas 12.

Do. CHAMBERS edition ... 15 annas.

DE QUINCEY'S ENGLISH MAIL COACH and RHETORIC with Introduction Full Notes and Analysis printed from clear type with wide margins by R. S. Sheppard and C. M. BARROW, Rs. 1—4—0

Introduction, Notes and Analysis only, without Text Re. 1—0—0.

The Introduction contains an elaborate examination of all the prominent and peculiar characteristics of De Quincey's unique style, and an Analytical Abstract of the Essay on Rhetoric has been specially added for the easier understanding of this difficult essay.

Notes with Introduction on the English Mail Coach by C. H. PAYNE, B.A., Price 6 annas.

The English Mail Coach and Revolt of the Tartars, by MARK HUNTER, Price

SHAKESPEARE'S KING LEAR, by Verity As. 15.

Do. by DEIGHTON, Rs. 1—1—6.

Do. by BARROW, Cloth, Re. 0—14—0. Stiff Cover, Re. 0—1

Do. by WINCKLER, Re. 1—8—0.

FIRST EXAMINATION IN ARTS, 1903.

Milton's Paradise Lost Book 1.

With Introduction and Full Notes, by Dr. J. BRADSHAW, containing of Milton, Addison's Criticism, Notes, Glossary of difficult words and a Chronological Table of the History and Literature of the Seventeenth Century. Price 5 annas.

Do. With Introduction and Full Notes, by E. WINCKLER, containing 16 pages of Introduction, 70 pages of Notes, and with Biblical, Grammatical, Metrical and Critical Indexes. Price 6 annas.

Do. With Introduction and Full Notes, by R. S. SHEPPARD. Price 12 annas.

Jennyson's Morte De' Arthur.

With Introduction and Full Notes, by R. S. SHEPPARD. Price 5 annas.

Jane Austen's Pride and Prejudice.

Various editions at 5 annas and 12 annas.

Do. Notes by HOOPER Price as. 14.

Raleigh. By EDMUND GOSSE, (English Worthies Series), Price as. 15.

Shakespeare's Richard III. With Introduction, critical and explanatory Notes, Index, and 6 useful appendices—References, Grammatical, Metrical, Critical, Miscellaneous and Praxis 266 pages, by E. WINCKLER, Cloth 10 annas. Stiff boards 8 annas.

Do. by TAWNEY. Price Re. 1-9 0.

B. A. DEGREE EXAMINATION, 1908.

Chaucer's Nonne Preestes Tale. Prologue, Knightes Tale, &c., Edited by SKEAT and MORRIS, containing Life of Chaucer, Poetry of Chaucer, Chaucer's English, Grammar, Metre, &c., published at Sh. 2/6. Cloth Rs. 1-4 0. Paper Re. 1.

Milton's Comus. Edited with Introduction, Notes, Life of Milton, History of the Poem, Plot Metre, Remarks by Commentators, by Dr. J. BRADSHAW, 82 pages. Price 5 annas.

Do. by Verity, containing 56 pages Introduction and Full Notes. Price Rs. 1—2—0.

Do. with Full Notes by BELL. Cloth, Price 15 annas.

Ringer's Lamb. (English Men of Letters). Price 10 as. Cloth, 15 as.

Do. New Series, Gilt Top, Price Rs. 1—8—0.

Do. Notes by A. A. THOMAS. Price Re. 1.

George Eliot's Scenes of Clerical Life. Price 5 annas.

Do. Notes on Janet's Repentance, with Introduction, by E. WEBSTER. Price 12 annas.

Herod as Divinity. Edited with Introduction, Notes, Critical All the Explanatory by MARK HUNTER. Price 15 annas.

Cymbeline. Edited with Introduction and Notes, by MANIMAKA WINCKLER, containing Index and 4 Appendices. (1) References. annas 8. (2) Grammatical. (3) Metrical. (4) Critical. 282 pages. Cloth Paper 8 As.

PURANANU edited by DEIGHTON, Cloth Rs. 1—9—0

Indispensable to all who wish to speak
and write English correctly.

CHAMBERS'S TWENTIETH CENTURY DICTIONARY

Of the English Language.

Pronouncing, Explanatory, Etymological, with Compound Phrases, Technical Terms in use in the Arts and Sciences, Colloquialisms, full Appendices, and copiously illustrated, Edited by Rev. Thomas Davidson, 1200 pages, each. 2 0

CHAMBERS'S ETYMOLOGICAL DICTIONARY

Of the English Language.

Edited by A. Findlater, M.A., L.L.D. Pronouncing--Explanatory--Etymological 608 pages ... 0 12

Annandale's Concise English Dictionary, Literary, Scientific and Technical, with Pronouncing List of Proper Names; Foreign Words and Phrases; Key to Names in Mythology and Fiction; and other valuable appendices. New and Enlarged Edition with Supplement of Additional Words ... 2 0

Dictionary of Contemporary Quotations, by H. Swan ... 5 10

Famous sayings and their Authors; a collection of Historical sayings in English, French, German, Greek, Italian and Latin by E. Latham ... 2 10

Dictionary of Battles; from the earliest date to the present time by T. B. Har bottle ... 2 10

Hayden's Dictionary, of Dates and Universal Information Relating to all ages and Nations by the Late Benjamin Vincent ... 18 12

THE GRAPHIC ENGLISH DICTIONARY,

*Etymological,
Explanatory,
Pronouncing,
and Copious
Appendices,*

Including Literary and Historical Names; Words and Phrases from the Greek, Latin and Modern Languages; of Glossary of Scots Words and Phrases, etc., Edited by A. M. Williams M. A., illustrated with numerous Engravings and 16 full page Coloured Plates. 2 10

Dixon's Dictionary, of Idiomatic English Phrases ... 2 10

Nearly 4000 English Phrases and Idioms which are in very common use are collected and explained with illustrative examples from standard authors.

The Phrases are classified under a four-fold category.

1. **Prose**, such phrases as are used in serious composition by such writers as Macaulay, Mathew Arnold etc.,
2. **Conversational**, those which may be used in Social intercourse, at gatherings where strangers are present and where we are expected to weigh our words.
3. **Familiar**, those which can be used only when we are speaking unservedly among intimates.
4. **Slang**, which are generally of a local or Technical Nature.



THE INDIAN

Journal of Education.

Vol. XLVII.
Old Series.

MARCH 1907.

Vol. XV.
New Series.

The Teaching of Geography.

PART III.

Some remarks will be made in this paper on the apparatus necessary in geographical teaching, and suggestions will be offered for a scheme of work suitable to the middle classes of a secondary school. It is impossible to deal with the subject in great detail. To do so would be too vast an undertaking. Some points in connection with apparatus have been incidentally touched on in the previous article, but it will be convenient to add here a summary of what is required.

In the first place, it is well to have two blackboards, one for written work and one for map-drawing of all sorts. For maps drawn on the blackboard chalks of different colours are useful, especially in the case of a contour map. Large wall-maps are essential; and, if possible, the teacher should have a relief-map also of the country he is teaching. As regards pictures, it is difficult to get good pictures of the various countries. Illustrated text books there are, but the pictures are often bad; and, being extremely small, they are liable to be deceptive. Good pictures are expensive. The best plan is to make collections from time to time of districts from cuttings out of illustrated papers. For example, many excellent pictures of the Far East were obtainable at the time of the Russo-Japanese War; or again, the Prince of Wales's tour afforded an opportunity of procuring pictures of places of interest in India. Again, a geographical museum is often of use in illustrating geographical lessons. In dealing with the products of India, for example, specimens might easily be obtained of many of the most important of the products. A further aid to teaching the subject may be found in the magic lantern. Slides are now obtainable of many countries, and many interesting and useful lectures may be delivered. Such lectures make the teaching much more vivid and real. Lastly, in connection with physical geography, modelling is a valuable help in making a lesson clear. A lesson on springs, for instance, may be given with the aid of a plasticine model of a section of spring. Needless to say in employing these various pieces of apparatus care is required and experience is the best

guide as to their use. They may be abused, and the lessons become hopelessly mechanical. They must be subservient to, and illustrative of, the general scheme, and the methods employed must not be merely dependent upon them.

We shall attempt now to consider what these methods should be. In general, synthetical and analytical methods may be employed. In the first case, an isolated place can be taken and then added to; in the second, general considerations may be dealt with first and then local circumstances studied: in the first case, general principles can be arrived at inductively, in the second these principles are deductively applied. For example, if we are dealing with the climate of India, a number of places whose climate is different may be given—Madras, Ootacamund, the Nilgiris, Calcutta, the Punjab, and the Himalayas. By the help of these instances, the students can discover the importance of height above sea-level, proximity to the sea, conditions of rainfall and the like. Or, the process may be reversed and the general principles which determine climate may be elicited first, and then examples given. The methods may be varied, using comparisons with other countries all the time. For example, the respective positions of England and India relatively to the equator may be noticed and the resulting difference of climate emphasized.

In teaching the subject it is by no means difficult to arouse interest. But more than this is required. A definite scheme of work is necessary. The best we know is one which has been advocated in England for the use of middle forms in secondary schools. For any continent a knowledge is required of—

1. *Its position on the globe*; its latitude and longitude: the surrounding land and water. This should be done relatively.
2. *Its size* relative to other divisions.
3. *Its shape*, indentations, bays, capes.
4. *Its surface*, Mountain systems, their directions and peaks. Plateaux, lowlands, plains fertile or desert, valleys, striking scenery, contours. Comparisons should be made with other continents.
5. *Its drainage*. Water partings. Rivers, their source, length, mouths, deltas and estuaries; their good or bad characteristics for trade. Lakes, salt or fresh. Comparisons again should be drawn.
6. *Its climate*, which should be inferred from its position on the earth. Modifications of climate due to winds, altitude, etc. Rainfall. The seasons. Coast and interior compared with each other and with other continents.

7. *Its life*, animal, vegetable, and human.
Animal life—wild and domestic: indigenous or not.
Vegetable—wild and cultivated.
Human—original and civilised. Reasons for distribution of population.
8. *The regions* adapted to mining, agriculture, trade and commerce exports and imports.
9. *Application* of 1—8 to the position of cities; natural advantages.

Further, some physical geography must be done in connection with the scheme. The physical geography of mountains, rivers, rain and the seasons might be profitably discussed. The order in which the scheme was worked through might be varied, though we believe all of it to be necessary.

The working of the scheme may be enlivened by many expedients, some of which have been already suggested when we were dealing with the question of apparatus. But some additional suggestions may be made. Accounts of famous explorers and great voyages are never-failing sources of interest, and books on such subjects should be available for the use both of the teacher and of the class. Further, it will have been noticed that the use of comparison has been advocated, and its value is undeniable. Again, the principle of correlation may be employed, especially by making use of literature and history. Descriptive pieces of prose and poetry may be read, whilst the intimacy of the connection between geography and history is too obvious to require illustration.

In the highest forms of secondary schools the same scheme may be utilized, and a fuller exposition may be made of the more difficult features in it. In all teaching two alternative principles may be adopted. A small part of a subject may be dealt with in the lower forms, and the rest reserved for the higher forms; or an outline may be given from the beginning of the subject as a whole and an increasingly fuller study made of it as the pupils develop. No hard and fast line can be drawn as to which principle is the better, but it may be said that the first principle must be followed in the teaching of Mathematics, science, and languages, whilst in history and geography an outline of the whole subject may be given at an early stage. Hence the same scheme will be suitable for different forms: the method adopted alone will change.

Thus the scheme we have given may be employed in the highest forms as well as in lower forms. Additional depth of view may be gained by problem work. We will conclude this paper by quoting a few of those problems which Herbertson suggests in connection with the teaching of America.

- I. Compare the average population of the following states.
Texas, Arkansas, Kentucky, Colorado, New York, and California, and account for the relative attractiveness of the states.

- II. Show how the surface and configuration of the Atlantic coastal plain has affected the location of towns.
- III. Trace the connection between rainfall and products, giving examples.

In some modern geography text books problems are given with hints as to where the answer may be found. When necessary, the teacher may give hints, and formulate problems of his own.

We have now dealt with the subject of geography teaching as we proposed at the outset. The treatment has necessarily been cursory. Our object will have been achieved, if the remarks we have made induce any one to take a greater interest in the subject and lead him to go into the points raised in a fuller way than we have been able to do, discussing the subject with others and reading authoritative books upon it.

School Examinations.

Examinations may be viewed from three points of view, the examiner, the paper the examiner sets, and the boy he examines. It will be convenient to consider the subject from these three points of view and to consider further what effect examinations have on teaching. The question is one of the highest importance in these days of universal examining. Examinations have spread inordinately, owing to the prevalent belief that knowledge is the aim of education. Knowledge may be easily tested; hence the universality of tests. Latterly, however, a reaction has set in. Thoughtful people have come to see that not mere knowledge but only utilizable knowledge is of supreme importance. It has been recognized, moreover, that the process of education and the development of a boy's personality and ideas cannot be appraised by the rough and ready methods of a public examination. It is therefore worth while enquiring what the proper function of an examination is, who is the fittest person to conduct such examinations and what effect will be produced by them on the teachers and the taught.

In the earliest stages the evils of examinations are inevitably greater than in the later. The knowledge of young boys is fragmentary and vague. It is not unified, and they are weaker in written, than in oral, work. To demand written examinations from such boys is mischievous unless the teacher and examiner are one and the same person. For the teacher may then use the examination as a test as to whether his teaching is at the right level and of the right kind. He may see what progress the form has made, what it is weak in, and where next to start so as to advance according to sound laws. In higher stages, examinations are less of an evil as the work of the boys runs on more definite lines. If boys who have reached those higher stages must be examined, who is the most fit

person to examine them? There is one inherent defect in all external examinations. As Quick remarks—"Directly you make the examiner one man and the instructor another, the instructor has to prepare his pupils to impress the examiners, and their answers may be no real index of their knowledge or their intelligence," or again, "in so far as a public examination lends itself to mere competition between schools, each school sending up a carefully picked and trained troupe of gladiators, the effect on education properly speaking is absolutely mischievous. The teacher, under these conditions, devotes his efforts not to understanding the minds of his boys but to anticipating the mind of the examiner." Further, external examinations are expensive. Nor are the examiners always satisfactory. A retired failure and an overworked public servant are not likely to be in sympathy with those they examine. Their object is to make a little money and be done with the tiresome business as soon as possible. They, therefore, set questions which can be looked over easily and revel in an orgy of facts, setting a premium on a mere knowledge of details. As a rule, headmasters and their staff should be able to conduct their own examinations in a cheaper and more satisfactory way. No external examiner has then to be impressed. No Government Inspector will have the power to demand from every school uniform standards and uniform methods, such as would only produce an average of mediocrity and a multitude of certificated superfluities. Some public examinations in the highest stages there must be: but no exception need be taken to these inasmuch as a careful Government will always be able to secure competent examiners.

Turning now to the examination itself, it may be said that the aim of an examination should be not to test merely the knowledge of facts, but also to find out through the medium of questions necessitating thought, how far the examinee has dealt scientifically with his knowledge, and whether his intellectual life is one of ideas as well as words. This latter aspect of an examination is now admittedly the more important of the two. As is natural, the range and depth of thought demanded in such papers must vary with the age and attainments of those who are examined. And such papers require to be carefully set, and must be simple. "Independent thought, in segments of fifteen minutes at a time, is a feat to which no wholesome school-boy aspires. The question flusters him, he clutches vaguely at the first piece of knowledge which strikes him as dimly relevant and writes even that inaccurately out of sheer panic. And so the examination paper, the proposed end of which is to elicit his knowledge, to lure it forth, takes from him even that which he hath." Unfortunately, it is extremely difficult to test the mind's ideas, or to mark questions involving thought. Thus there exists an inevitable tendency to set papers which are answerable by means of memory-work. Further, this tendency is heightened, because such papers, besides being easier to set, admit of being more speedily looked over. The examiner has no need to consider carefully how far the examinee

has displayed lucidity and originality of thought in his answers. He need only take into account the knowledge of fact and grasp of detail.

If this danger of having indifferent examiners and bad papers is real—and we have experienced both—it follows that the victims must be many and that their suffering must be great. It is undeniable that badly conducted examinations exercise a baneful influence on a boy's development. If mere memory-work is tested, he will cram ill-digested facts for each examination, and swallow doses of knowledge which he fails to assimilate. Without convictions, he will be the impotent slave of authority and the blind follower of opinions which he does not understand, and his inappreciation of which he is hardly intelligent enough to avow. Hence, all systems of education require to exercise every precaution, and allow scope for, and give encouragement to, the boy whose mind is active and whose interests are lively. If the dread of an examination, which allows so much per cent. for facts, is ever present, this mental activity and these lively interests are dwarfed and the pyramid of knowledge rises on the grave of ideas. But it is not only the boys that may be harmed by examinations, the teaching itself may be prejudiced.

Examinations are universal, and if they only test a knowledge of facts and details, these will occupy time that might with advantage be devoted to the suggestion of ideas and the implanting in the pupil's mind of an enquiring attitude. Further, where the ignorance of parents measures results by a petty, but often useless, certificate, the necessity for working for such a certificate tends to make teaching run in a groove. This evil is aggravated where the master himself teaches in order to gain kudos for himself from the fact that those under his charge do well in examinations. There is a perpetual danger of cram-work being substituted for work that aims at all-round mental development. And it would be far better to limit the subjects in examinations to such as cannot well be crammed. Or, at least, such subjects should be marked highly enough to remove the incentive to degrade education to cram and memorizing.

It may be said that these evils are due to the teachers and not to the examinations, and it must be admitted that this is to some extent true. A speaker at a recent educational conference, defending public examinations said that 'his sympathies went out to teachers very much more than to examiners, but he ventured to urge that it ought not to be regarded as mad heresy in an educational conference to say that some teachers were lazy and that some needed guidance and stimulus in order that their teaching might be made less mechanical and more suggestive.' The remedy for this lies in improving the quality of the teaching staffs, and this can only be done by increasing the inducements to entering the teaching profession.

Nevertheless, it remains true that examinations may be detrimental to teaching and they are necessarily so, when the examinations are at one and the same time bad examinations and examinations that must be taken. If in

addition to that set text-books not always of a sound character are laid down by the authorities, the indifferent teacher becomes the slave of a text-book as well. Thus, while the necessity of tests is recognised and evils of patronage are remembered, yet there is room for hope that the character of examinations and the examiners themselves may be improved so as to avoid dulling the intellects of boys and impoverishing the value of teaching.

The Teaching of History.

History is a very interesting subject, and, if rightly taught, it will greatly subserve the purposes of education. In France and Germany this subject is taught by teachers who have been specially prepared for the work; the teacher sat at the feet of a competent professor, if possible, at some university from whom he got the method and spirit. As Mr. Bryce says, no one can teach history who does not possess the historical sense, who does not understand the difference between the present and the past, and yet does not feel how much of the present there was in the past. Unfortunately, history is not taught in Indian schools as it should be. Herbert Spencer's strictures regarding the treatment of this subject in English schools apply, we fear, to our schools with equal force. Too much exercise is given to the memory, and far too little attempt is made to conduct the teaching on intelligent lines. We propose within the brief limits of this article to consider the aims and methods of teaching history.

The teacher's aim in teaching history has been viewed from several standpoints. Some educationalists claim for it an *intellectual* value, some others a *practical* value, while almost all are agreed about its *ethical* value.

The study of history is, it is said, a great aid to *understanding*, as the learner has to exercise his *reasoning* powers in tracing effects back to their causes or projecting causes forward to their effects. He has to generalise and make valuable inductions. He has to understand the community in whose midst he lives and his relations to the rest of society. "Modern history," says Stubbs, "is the history of ourselves, of the way in which we came to be what we are, of the education of our nation, of the development of our government, of the fortunes of our fathers, that caused us to be taught and governed and placed as we are, and formed our minds and habits by that teaching, government and position." A living knowledge of the origin and mode of growth of institutions is unattainable without an adequate training of the power of *judgment*, which will help the individual in all the great affairs of life. Lord Bacon held the same view. According to him the true object of history is to represent the events themselves together with the counsels and to leave the observations and conclusions thereupon to the liberty and faculty of every man's judgment.

It is undeniable that there are frequent opportunities for weighing evidence and exercising the power of judgment which may become all the greater with each occasion for use. Even when there is no elaborate search amidst conflicting reports, the habit is cultivated of holding the judgment in suspense until the matter has been examined on all sides. It is true that children in the secondary stages of instruction are unable to search for truth, and that the multitudinous circumstances attendant upon an event make it impossible even for adults to find out the real causes and that generally children form no opinions of their own, but merely accept at second hand the opinions of their teachers. But after making every allowance for these facts, it must be admitted that the teaching of history is an aid,—and a powerful aid, too—to intellectual development.

Its *practical* value consists in storing the mind with a great deal of valuable information, and also in tending to make the students good *citizens*. No one seriously questions the former of these two results, as in daily life we observe that the student of history is generally the most well informed man. History, at any rate as understood in this Presidency, demands plenty of reading, and reading, we all know, makes a full man. But whether a knowledge of history will enable the pupil later on to exercise his political privileges in a more intelligent manner is open to doubt, since of the vast amount of matter covered in a historical course only a small part relates to citizenship.

Now, regarding the *ethical* value: History helps to remove national *prejudice* by enabling the learner to know more of other nations and so divest himself of that bias against, and hatred and contempt for, other nations which are born of ignorance. Besides cultivating this sympathy for the world at large, the teaching of history addresses itself to the development of *patriotism*. This is especially the case in Germany. But one serious danger lurking about this feeling is that of the student mistaking it for that "spurious type which consists in upholding as right and just all that the native country has done in the past, or is proposing to do in the present. There has been much to be regretted in the past of every nation, and true patriotism does not consist in ignoring this or in distorting the facts so as to make the worse appear the better cause, but in endeavouring to discover the noblest ideas which have been operative in the national life and to promote the future dominance of such ideas. The true patriot is he who does his duty manfully in both the public and the private relations of life, not he who most persistently blows the trumpet of self glorification or beats the drum of ostentatious advertisement." (James Welton.) Certain writers have laid stress on *truth* as the function of the study of History. MM. Langlois and Seignobos say: "We no longer go to history for lessons in morals, nor for good examples of conduct, nor yet for dramatic or picturesque scenes. For these purposes legend would be preferable to history, for it

presents a chain of causes and effects more in accordance with our ideas of justice, more perfect and heroic characters, finer and more affecting scenes. Nor do we seek to use history, as is done in Germany, for the purpose of promoting patriotism and loyalty; we feel that it would be illogical for different persons to draw opposite conclusions from the same science according to their country or party; it would be an invitation to every people to mutilate, if not to alter, history in the direction of its preferences. We understand that the value of every science consists in its being true, and we ask from history truth and nothing more." To search for truth, to sift truth from records abounding in erroneous statements or wilful distortions of what occurred, is a moral education for the writer. To read a just and true history is a moral education for the reader. We cannot more fittingly conclude this part of our subject than by quoting the words of M. Laviſse: "To give the pupil an exact idea of the successive civilisations of the world and definite knowledge of the formation and growth of his country; to show him the action of the world on his country and of his country on the world; to teach him to render to all peoples their just dues, to widen the horizon of his mind, and finally to leave him in possession not only of an understanding of the present condition of his country and of the world, but also a clear notion of his duties as a citizen and as a man—such is the function of history in education." (quoted by Prof. James Welton).

Passing on to the subject of the *method* of teaching history, we shall consider it with reference to three well-marked stages; and here we must express our indebtedness to the lucid and admirable report on "Educational Studies at the St. Louis Exposition" by Mr. H. Sharp, Director of Public Instruction, Eastern Bengal and Assam.

If, as has been stated in preceding paragraphs, the true aim of the teaching be the planting and early nurture of a genuine interest in history, and not the mere memorising of numerous statements of fact, then admittedly history has no place in the *first stage*; it requires a certain maturity of mind which is not reached before about the twelfth year of age. A few stories told either independently or in connexion with early lessons in nature study and geography will suffice to awaken the child's interest in this subject.

• *Second stage*.—Nor must the study abruptly take on a formal guise. "The natural way of imparting historical knowledge," writes Herr Neubauer, "is narration. In the preliminary stage, the teacher must narrate, as father or mother narrates stories to the children at home. And so it is in the middle and higher classes; the demands upon the perceptive faculty, the understanding and the judgment increase; but narration still forms the kernel of instruction. Historical facts can be neither deductively derived like the truths of mathematics, nor inductively discovered like the rules of

grammar. It is often deplored that in historical study more than elsewhere the pupil is condemned to mere reception and impression, and it is proposed to set a portion of the text-book for home preparation and subsequent discussion in the class lesson. It appears, however, that such a procedure would only serve to increase the difficulties for pupil and teacher alike. The pupil would be expected to impress upon his own mind things which he does not yet fully comprehend; the teacher would be obliged to forego the advantage of that moment of expectation which materially facilitates the assimilation of the facts narrated. And it must finally be considered that in noisy and broken discussions the impression upon the pupil is weakened, and that the matter is one requiring orderly explication; the epic frame of mind, the inspiration of historical instruction, would be frightened away from the outset. Our opinion, therefore, cannot be altered, that if the pupil is not to be wearied only two ways are possible—first, to narrate in the liveliest and most exciting manner permissible; second, to draw on the pupils, so far as possible, to collaboration with the teacher. To take the second first, very varied opportunities for arousing the pupil's sense of independence offer themselves—in deriving the new from the known; in elucidation of the past by comparison with present circumstances; in the examination of causal relations, the estimation and comparison of personalities, situations and events, and in the ascertainment of results. * * * * The syllabuses recommend freedom in treatment of the material and in lectures, since thus alone can the teacher's personality have its full effect. By this it is naturally not meant that he should not use his notes here and there. But the reading of elaborate note-book is deprecated, and it is true that such a procedure does easily lend to the instruction an academic and abstract colouring; the teacher loses sympathy with his hearers and falls into the danger of using long words and talking above their heads. The teacher must not cut himself adrift from the text-book, but at the same time he must not let the text-book swamp his own independence. If he pays no heed to it, he thereby makes the pupil's task more difficult, and forces him into the taking of notes *verbatim*. Against such note taking valid arguments are the considerations not only that the pupil often sets down on paper incorrect and inconsequent information out of which he does not disentangle the essential, but that this method has a kind of stupefying effect on him, and prejudicially affects the fresh, free assimilation of the matter before him. * * * Repetition of narrative by the pupil is the weighty proof of comprehension; as such, it must not be omitted from the *Sexta* to the *Prima* (i.e., during the full nine years of secondary education), and must be replaced by mere questioning only exceptionally—whenever, that is, either a very easy or a peculiarly difficult part of the subject crops up. Such repetition is also

of great value to our pupils (who, even in the higher classes, often cannot easily be brought to express themselves in methodical language) as practice in the reproduction of comparatively simple trains of thought. If questions on isolated points cannot alone succeed in attaining the goal of this instruction, then, on the other hand, repetition of the whole offers its services in checking mechanical modes of impression; and it has often proved a useful plan to have the pupil's repetition preceded or followed by a few questions relative either to the facts or to their inter-relations." This passage will serve to show how natural methods—lively narrative, correlation of parts, and expression by the pupils—are carried out in Germany; it expresses the principles which will be found practically applied in the Philadelphia elementary schools. Here we find that children of even the third grade (age eight to nine years) hear nothing but disconnected stories. No attempt is made to burden the mind with a long series of related events. A child likes to read of a man, of a battle, of a voyage of discovery; he abhors political relations of cause and effect. He requires picturesque details, which a broad survey cannot supply. He is a worshipper of heroes; but these must be real human heroes, with whose personal life he is intimately acquainted—not the mere skeletons which the ordinary text-book has no leisure to supply with flesh and blood. Thus the principal epochs of his country's history should be indelibly impressed on the child's mind by vivid portrayals (aided by pictures) of men and events. Not till the fifth grade (age ten to eleven years) does anything like systematic history begin; and even here the treatment, as in geography, is still semi-topical. The single points previously impressed on the memory and imagination are now used as pegs on which the warp of narrative is gradually drawn, while a running commentary on manners and customs, on the history of civilization, forms the woof and completes the fabric. Details which belong to important personalities and events are given in profusion; otherwise they are omitted, and thus a sense of historical perspective is early aroused. Thus, very few dates are to be learnt; but those must be deeply impressed. Memorising is not to be abolished; for in history it is essential. But that which is to be memorised must be thrown into tabular synopses, easily grasped and appealing to eye and ear alike. The connection of geography and history should be made real; and historical map-drawing, as a mode of expression, should form a separate item in the course. History without geography is largely unintelligible, and geography without history is devoid of human interest. Besides maps, moderate sized pictures are in many cases a very affective mode of illustrating lessons in history. Those of value in the text-book can be used, and they may be supplemented by pictures contained in *Historical Albums*. Large pictures are also very useful for class teaching and when not actually used in teaching they should be easily accessible to pupils, so that they may

pore over them till the instruction conveyed has become an integral part of their knowledge. Lantern slides which can in these days be used without darkening the room, are also very effective modes of pictorial illustration. Whatever the illustrations used, it is not the number but the quality that has to be considered. Accuracy is essential, and the illustrations must be such as to help the pupils to picture the past. Portraits of great men, views of scenes historically important, examples of architecture, siege operations, tournaments, arms and implements of war, means of transport—roads, bridges, waggon, ships at successive periods, early railway engines and trains, these and other similar illustrations are great aids to the studying and teaching of history. Far more powerful aids are visits to historic remains in the pupils' neighbourhood. Pupils should be previously told what to observe, and, under the teacher's guidance, should draw a rough plan. Lastly, the study of constitutional polity should be reserved for the highest forms, and even there, it should be kept within reasonable limits.

Third Stage.—Here, laboratory methods and the use of a good library take the place of oral instruction along the lines of a text-book. The supplementary reading of pupils should bear on the systematic work of the class. The teacher should recommend those books that will give a true historical atmosphere.

Methods are after all the drybones of teaching; these drybones need to be clothed in flesh and blood. Such a task is best accomplished by the teacher imbued with a true spirit of History, by one who has a genuine interest in the story of the past, one who, endowed with a keen insight, a wide sympathy, a balanced judgment, and an unfaltering love of truth, turns to good account the opportunities afforded in his lessons.

Defects in the Teaching of Primary Arithmetic and Suggestions to remedy them.

By MR. K. V. RAMA ROW, B.A., L.T.

PART I.—DEFECTS DESCRIBED.

It might be conceded on all hands that Arithmetic is one of the most ill-taught subjects, especially in the lower classes. It should not be forgotten even for a moment that mathematics is a science as well as an art, and it is only when both sides of the subject are presented to children, that they get the required training and our object is gained. If this principle be true in the case of Algebra, Geometry and other higher branches of mathematics it is much more true in the case of Arithmetic. We need not entertain any fear about the methods of teaching mathematics in higher classes, and the results achieved therefrom, for the teachers of the higher classes are advanced enough not to lose sight of the evils of adopting unscientific

methods. Being specialists in the subject many understand the principle underlying each truth, and with the help of their knowledge of the principles and methods of teaching, they can formulate for themselves the best methods that are suited to their students.

But the teachers of the primary classes are themselves ignorant of the subject. Their mental capabilities are so low that they cannot even grasp the mechanical parts of the subject. Such being the intellectual state of the primary teachers, how can Arithmetic be taught as a science and as an art in the lower classes? So long as these teachers know only how to perform jugglery with figures, and so long as the boys learn this figure—manipulation in the Arithmetic class, the general dislike of the subject cannot be obliterated. It is because the present primary teachers themselves were ill taught during their childhood and youth that they do not understand the principles underlying the ordinary principles in Arithmetic and are therefore unable to adopt methods concordant with the rationale of the subject. Even if such methods are taught to them in the Training schools, they are in most cases unable to grasp their essence.

So the discontinuing of the lectures on method in Training schools, is most welcome and we have to thank Mr. J. H. Stone, the Inspector of European and Training schools, for having brought about this change. The attempt to improve the general knowledge of the primary teachers by teaching them Vernacular, Geography, and Nature Study, History and Civics, Drawing and Mathematics, is a move in the right direction, and we need not despair at first sight, on seeing a comprehensive and comparatively extensive curriculum to be gone through in the course of a year.

I shall now touch upon a few defects in the teaching of the subject itself in the lower classes. In the first place, the general neglect of mental Arithmetic in the primary standards of almost all the elementary schools is to be greatly deplored. Mental Arithmetical calculations form the most important part of the primary school curriculum. They form the basis of acquiring a skill in the art of computing. Children take more interest in the art of Arithmetic than in the principles, inasmuch as they cannot fully comprehend them. The remark of Mr. Mostyn Price, His Majesty's Inspector of schools in England, that "Simple Arithmetic, particularly the mental tests, is the least satisfactory of the elementary branches," applies as well to Indian Boys in Indian schools. Counting on fingers is far too common in the town as well as in the village. The chief cause of the general neglect of mental Arithmetic, seems to me to be the use of slates at a very early period. The introduction of slate-work at too early a period, prevents the teacher devoting his time and energy to laying the real foundation of future arithmetical operations, and the children acquiring

"quickness in calculation with small numbers," which is the proper work of the infant school. There is a good deal of truth in the remarks of the Chief Inspector Perez. He says, "The use of slates leaves the children more time than is necessary, and is very frequently accompanied by finger counting (commonly prevalent among boys of our schools), stroke counting (commonly prevalent among girls of our schools), the use of the side-tables,—devices of one kind or another for just avoiding real mental calculation." The teacher's constant appeal to the slates and the Black-board, is productive of more serious evils than those mentioned above.

The boys acquire wrong notions about the things taught. The principles are entirely thrown into the background. To illustrate what I mean: a boy of the 2nd class, who was being taught subtraction by the teacher, was put the question, "How many ones are there in one ten?" He readily answered, "There is only one one in one ten." Evidently the boy was confounding figures with the numbers. The idea of the number ten, is quite different from that of the figure 10, which is simply the form appealing to the eye and arousing in us the idea of the number ten. An infant class boy was asked to pick up 5 beads out of a box containing many beads. He began to count bead by bead, till he came to the 5th bead, which he placed in the teacher's hands, as representing five beads. Evidently the boy has been in the habit of seeing a single digit 5, written on slates and the Black-board, to represent the collective number five; mistaking the individual for the collective, or the figure for the number, he has given only one bead, ^{which} is the fifth in the order of his counting to represent 5 beads. In ^{most} of these cases, the boys have acquired a wrong idea of the number by having ^{constant} look at the figures.

The next feature to which attention should be drawn is the use or the misuse of concrete things in the teaching of Arithmetic. In villages the use of concrete objects is totally neglected, and in towns they are misused to such an extent that the boys do not find themselves wiser from having been taught in the so-called methodical way. In many cases the ball frame, the number sheets, or the box of beads is simply placed before the class, and the teacher begins to teach in his own conventional way. So little attention is paid by the primary teachers to the question as to how the concrete objects should be used in teaching a rule, that one wishes they might not be used at all, lest the boys get confused and form no idea of what the teacher says. The method of using the concrete objects, which would bring home to the minds of children the principle that is being taught, should be definitely thought out, before any objects are used in the class.

There is a wrong idea entertained by the elementary teachers, that primary Arithmetic is a mechanical mixture, (if I may be permitted to use a

scientific expression) made up of the first four simple and compound rules. The curriculum of studies in Arithmetic, as prescribed in the Educational Rules, 4th Edition, partly fosters this idea, and strengthens the teacher's belief. The teacher, who causally teaches subtraction to the first standard, and money tables to the second standard, thinks that he is committing a serious crime, by acting against the rules, which prescribe certain portions to be taught in certain classes. Such ideas must be abandoned. Mr. Williams, His Majesty's Chief Inspector of schools in England, says, "The chief object of the teacher in teaching primary Arithmetic, should be to train the children to see the simplest relations between the numbers, and deal readily with small numbers. The child who can deal intelligently with numbers up to 20, so as to add, subtract, multiply and divide them mentally by the time it leaves the infant class, has learnt more of Arithmetic than one who can do the first standard Arithmetic by mechanical methods, but is deficient in the above respects." The former is better equipped for the work of the senior classes than the latter. So it is not a sin, as many suppose, to transgress the bounds of the curriculum prescribed in the Rules. The standard prescribed is only the minimum one and is intended to enable the teacher to chalk out a scheme of lessons to be done in each class during the year. The first four simple rules might and ought to be taught in the infant class, so far as they relate to numbers upto 20. The teaching of the same rules as applied to integers of 3 or 4 digits, might be continued on broader lines in the higher standards. I see no reasonable objection to teaching the elements of money value, the measures of Indian weights and lengths in the second class. Why cannot simple notions about the area, space and the units of area and space, be imparted to little ones in the third standard? The pupils of the fourth standard, might be taught the notions of various simple geometrical figures, and the methods of finding the area and the cubic contents of simple figures and objects, with more successful results than in the case of the Normal students of the Primary Grade:

More prominent than all the defects mentioned above, is the absence of correlation between theory and practice. The boy who goes out of the primary school as a Reddi or a Karnam cannot apply his knowledge of Arithmetic as derived at school, to the conduct of his practical work. The second standard boy, who is learning the four simple rules, cannot tell how many quarter anna pieces are got for a rupee. He is much perplexed, if he is told to buy fruits for 2 as. @ 3 for 4 pies. A fourth standard boy cannot estimate the height of a person, cannot judge the weight of a letter, or cannot tell how many minutes' walk will take him from his house to the school. Yet he can work sums on reduction, involving measures of length, weight and time. The idea of the boy is that Arithmetic is solely confined to the schoolroom and consists in the working of a few sums given

by the teacher. No wonder then, that he is little benefited by the knowledge derived at school. As has been remarked by the Director of Public Instruction in his Proceedings dated 12th May 1905, there is an almost total dislocation between the school curriculum and life outside, nay even between one subject of that curriculum and another. This state of things should now come to an end. Of course much depends on the department in the framing of the curriculum and more depends on the teacher, who has to give effect to the principles of correlation in the teaching of the curriculum.

PART II.—REMEDIES SUGGESTED.

Let us consider what might be done to remedy, in part at least, some of the defects mentioned above.

In the first place, mental Arithmetic needs much attention at our hands. The department has now classified schools into Elementary and Secondary; and the boy who goes out of the Elementary school, enters life without continuing his studies, and takes up some profession, possibly, agriculture or trade, in the rural parts. By the time he leaves the school, he should have acquired facility in working out mentally sums on bazaar transactions, the first four simple and compound rules and those involving elementary fractions, with maximum speed in minimum time, for with him, "Time is money." So it is incumbent on the teacher to train the boy to become good at mental computations. So, taking utility into consideration, the old method of making the boys learn all the Multiplication and Division Tables, including fractional ones, and drilling them in Mental Arithmetic, might be adopted with advantage. The exercise selected should be concerned with concrete things and must be such as will have to be solved by boys in practical life. But the teacher should take care that the task does not become mechanical and that the boy understands the principle underlying every formula taught to him, before he is introduced to the mechanical part of the subject.

This leads me to dwell upon the way Arithmetic is to be taught. In many schools, the principle underlying every part of this subject is entirely neglected, and the subject is taught by the rote method in a mechanical way; *e.g.* no attempt is made to introduce the boy of the secondary forms to the principles on which the decimal notation is based. Why? many teachers do not themselves know the principle involved in the teaching of digits. When a teacher attempts to teach about number 3, he should, by suitable presentations of concrete objects, lead the boy to form the idea of number 3 in his mind, to discriminate this from other numbers, to have a conception about the components of that number and its relations with other numbers. The boy should then be shown how that number is represented by a symbol which is known as the digit 3, and so on.

In devising the easiest methods of teaching in the lower classes, concrete objects should be judiciously used to bring home to children's minds what is taught to them. The Hindu astrologers of old, who did not learn to write, used only cowries to perform big calculations concerning the motions of planets and the stars. The quickness with which they move the cowries to and fro, and arrive at the required result, is simply astonishing. They performed all the additions, subtractions, multiplications and divisions, simple and compound, with the aid of cowries alone. Of course, the method by which numbers are represented by figures, (as is the case with us) is far more convenient than that by which they are represented by cowries or any other objects. But the latter method might, with suitable alterations, be used in the teaching of Notation and Numeration in the Kindergarten classes. It is based on the principle that the teacher should pay special regard to the observant use of the organs of sense, especially, those of sight and touch. This might be said to be a modification of the method recommended by the Department of Education in England, which consists in using what are called "Number Pictures", as an occupation for each division of the school.

The children of the second standard are expected to learn the property of numbers upto 1000. Here is a box containing beads of various colours. Conventional names are given to a bead of each colour; *e.g.*, one blue bead is named one, a yellow one is named ten, a black one hundred, a white one a thousand, and so on. The beads stand more or less in the relation of the various copper and silver coins current in the country. One yellow bead is worth 10 blue ones; a black one is worth 10 yellow ones or 100 blue ones. A white bead is worth 10 black ones, 100 yellow ones, or 1000 blue ones, and so on. There are in the box also garlands of beads of various colours, each containing 10 beads of the same colour, whatever it may be.

Children are first taught to count from 1 to 50, so that they may remember the order in which they have to utter the names of the figures. Then the box is introduced. The beads are distributed, first by ones, then by twos, then by threes, and so on. It is necessary that each child should get beads of the same colour. When the boys are distributed, boys are made to say, one red bead, one blue bead, one yellow bead, two red beads, two blue beads &c. The teacher should take care to lead the children to observe the simple relations existing between the numbers, by means of the beads. Thus:—one blue bead and one blue bead make two blue beads; 3 red beads and 2 red ones make 5 red ones, 4 red beads might be divided into 2 groups 2 beads each. 4 red beads minus one red bead leave 3 red beads; and so on. The children are asked to form garlands of 2, 3, 4 &c., up to 10 beads.

as they are learning numbers up to 10. Care should be taken that the children do not get any mistaken notion that the numbers can be associated only in connection with beads of a particular colour. At this stage, the teacher might make children exchange the beads and ask them to count and tell how many red, blue, &c., beads they have with them. Other things, such as, pencils, slates, books, boys, &c., might be introduced in place of beads, to give them an idea that numbers might be associated in connection with any object.

The next stage in teaching numbers consists in teaching them the forms representing numbers, viz., digits. Each bead is represented by a circle on the Kindergarten slates or Blackboard. The circles are coloured red, blue, yellow, &c, according to the colour of the beads we use. The figure is written over the circle thus constructed, and the children are enabled to associate the figure with the circle, the bead and the number. Thus a link between the idea of the figure and that of the number is formed. This same method is adopted in the teaching of numbers up to 10. Thus the hand and the eye are utilised in the arithmetic lesson. To get rid of the tediousness in teaching, the children might be asked to make small clay marbles, to draw circles on slates, to make circular plates with clay, like peppermints or gem biscuits and place them in various patterns, so that the eye might train itself to distinguish between a collection of 5 peppermints and that of 6 or 7 peppermints.

After teaching numbers upto 10, the teacher introduces the convention, explaining at the same time, the necessity of resorting to it, when the boys learn about numbers greater than 10. The eye can easily distinguish between a group of 8 beads and that of nine; but the distinction between 15 and 16 beads is not so clearly presented to our vision. So ten is taken as the resting place, to introduce the first convention, where the digits acquire local and intrinsic values. Anyhow, the children might be taught the convention, viz., that one blue bead represents one unit, one yellow bead represents one ten, and they might be made to exchange a yellow bead for 10 blue ones, and vice versa; so that the child names one yellow bead as one ten and one blue bead as one. The teacher might then introduce 2 blue beads and 2 yellow ones, and explain to them the difference between their conventional and real values, which are 2, 2, and 20, 2 respectively. A boy might be given 3 yellow beads and 2 blue ones and asked how many blue ones he has. By questioning he might be led to the answer that he has ten blue beads and 2 one blue beads, making 32 in all. Thus by a series of such examples, the boy might be taught that 32 contains 3 tens and 2 units. Hundreds and thousands, might be taught in the same way, so that in the end, a boy who has 2 white beads, 3 black ones, 4 yellow and 5 blue, should at once be able to say that he has 2345 blue beads, even though he sees a far

less number of beads of various colours. Now and then an attempt might be made to make children understand the idea of the collection 256 beads, by showing 256 blue beads in a lump, and they might be told, that purely for the sake of convenience, this collection is represented by 2 black ones, 5 yellow ones and 6 blue ones. This method not only leads them to clearly perceive the convention adopted in representing the numbers, but also explains at every step the distinction between the local value of a digit and its intrinsic value. After the boys are perfectly acquainted with the manipulation of the beads figures might be written on the Blackboard to represent the numbers. Then the boys would be in a better position to understand the principles of notation and numeration. Similarly when teaching the first four simple rules, beads might be placed on the ground to represent the various numbers and the processes explained by means of practical manipulation. Having given the idea of exchange of 10 blue beads for 1 yellow, 10 yellow ones for 1 black one and so on, the carrying of digits to a next higher or a lower place in addition and multiplication and the so-called borrowing of digits in teaching subtraction, can be more easily explained in a rational way, than by means of mere figure-manipulation. Even in teaching compound rules and reduction involving measures of money, weight, time &c., the processes might first be explained by bead-manipulation and then the Blackboard might be appealed to. But a warning should be given at this stage to those enthusiastic persons interested in the subject. The use of the beads should be resorted to so long as the children are learning the Arithmetical principles, and should be discontinued afterwards. We should take care not to overdo the concrete, lest the children's progress in the understanding of the abstract notions is retarded. My conviction is that this method, when judiciously used by a capable teacher, would enable children to learn the principles and practice of Arithmetic, with minimum difficulty.

The next point which I wish to touch upon is how to effect correlation between theory and practice. The dislocation between the school curriculum and practical life complained of by the Director of Public Instruction, is due more to the method of teaching adopted than to the nature of the curriculum itself. Boys are made to work out sums involving mere abstract numbers; and only a feeble attempt is made to connect them with concrete things. Sums ordinarily given to boys are of the following types :—*Divide 144, 286 by 42 or Reduce 43 miles. 4 fur. 15 p. 3 yds. 2 ft. 6 in. to inches. Why should not these sums be given in some such forms as these? Divide Rs. 144, 286 equally among 42 persons, or How many times can we measure a road 43 miles 4 fur. &c., long with a rod 1 ft or 1 in. in length?* All questions should be given in a concrete form throughout the lower classes and in the upper classes also, except perhaps towards the end of the year, when the children

are soon to be transferred to the senior school, and when they have acquired ease and dexterity in dealing with questions in the concrete form.

I shall add only a few suggestions as to how other lessons might be utilised to explain the principles of Arithmetic. Counting might be taught by means of action songs and games in the excursion classes. The Hindu boys learn to count without their knowledge, even when they are playing at marbles. The well-known game of "Is it odd or even?" (ஒத்ததோ இல்லாததோ?) might with advantage be utilised to introduce children to the problems on simple multiplication and division. There is an Indian play called *Pillayar Attam* in Tamil or *Topi Attam* in Telugu (cap play) in which the children take great delight and which might with advantage be utilised to explain to children the properties of the circle. Similarly, the parrot play or the *Kilikkaram* in Tamil, might be useful to give to children practical notions of parallel straight lines. The *Kottam* or the *Kottu Attam* serves not only to explain the properties of squares or rectangles, but also to suggest the method of finding out their areas.

Object lessons on coins, balance and weights, measures of capacity, such as oillocks, &c., the clock and such other things, might with great ease and advantage be correlated with Arithmetical lessons about the corresponding tables. When the boys are doing drill, the idea of the length of a pace might be introduced, and they might be gradually led to estimate distances between any two places, by noting the time of the journey or the number of paces they have taken; and so on *ad infinitum*. A resourceful teacher, welcoming new ideas, would not fail to turn to account such opportunities, as are afforded to him.

Picture Reading.

By an experienced teacher.

Pictures have a great attraction for children and engage their earnest interest. They serve very useful purposes whether used by themselves or as occurring in books. The power to read a picture is wanting in children and it will be a very good exercise to train the children from their early stages of school-life in picture-reading *i.e.*, the ability to understand a picture and the meaning that it conveys. This power does not come on at once and it should be developed gradually and by a systematic course of lessons.

The child, as every one knows, gets his first knowledge of things directly from the concrete. The home and the surroundings furnish him the materials in the beginning and when he commences to roam about he

observes other things and gets ideas from them. This feature of the child's way of learning for himself is availed of in the lessons in nature study in which things are observed as they exist in nature and nearly every phase of the thing comes under the child's notice. In dealing with things the child uses his senses and acquires knowledge at first hand. This plan of getting the children in contact with the things themselves may be possible only up to a certain stage. But when the powers of the children grow and get strengthened to some extent, the need for the bringing in of the things themselves becomes less felt, and things, a shade less concrete, tend to become sufficient for the purpose. They try to understand what is prescribed before them by drawing upon what they had already stored in their minds. Many of the things in a school-museum which are usually brought in for purposes of illustrations or as objects for teaching upon are each of them, in some respects at least, different to how they were in their natural condition. When any one thing of the kind above referred to, is placed before a class, the children correlate what they see before them to things they have already learnt of a similar nature and also supply from their own imagination certain parts which they deem to be wanting in the thing presented. Going a step further, a picture of any object may be placed before the class or each child may be put in possession of a picture of the object which forms the subject of the lesson. Here, having before them a representation only of a concrete object, the children draw out several other features of the object by the exercise of their powers of memory, imagination, &c. It is this power of imagination that is sought to be exercised to the extent possible from the early stages of school life by training the children to read a picture. A carefully selected series of picture lessons while helping to secure the same purposes that lessons on objects aim at, has the further important gain of early exercising and improving the imagination of the children. The child certainly derives more knowledge from the thing itself, and only one aspect of the thing can be exhibited by the picture of it. But what is wanting for sense perception is made up by materials supplied by the use of the mental powers at the command of the children. During the progress of the child, for the purpose of enlarging his mind, it is not possible to satisfy the craving for knowledge by means of objects and objects only. Things not at hand but of which the child must know should be presented by other things than the most concrete. While it is essential that the early parts of teaching should be by means of objects, it is also desirable that this part of teaching should be interspersed with teaching by means of representations of objects; so that later on it might be sufficient to make the teaching objective only by calling in the revival of old knowledge in that relation. An appropriate conversation, story or description making use of the previous observations and experiences of the children is in a sense

objective, and in some parts of teaching such a course would be quite sufficient or perhaps would be the only course available. Thus it is plain that to depend on the most concrete form for purposes of teaching while a less concrete form would suffice for the purpose is to deprive the children of the opportunities that might be afforded for the exercise of the powers at command. Therefore there should be a graduation in the introduction of the concrete, and, as the child progresses, the teacher should endeavour to reduce little by little the degree of concreteness in teaching consistent, of course, with the efficiency of the teaching and the realisation by the pupils of what was intended to be taught. Pictures then should come in during the course of object teaching to some extent, and should form the chief means, during later stages, of enabling the pupils to realise the ideas conveyed. The point then is for the teacher to decide when pictures can be safely brought in and what kinds of pictures should be brought in; and certainly the pictures to start with should be single ones and representing familiar objects. Coloured pictures are more suitable in the beginning and the colours should be natural ones and should not have been overdone. Further in order to make teaching real and interesting it is essential that the pictures chosen should be true and likely to help the recall of the original. The correctness of the picture is very important to form correct ideas in the minds of the children. At the present time there is available at the market a varied lot of coloured pictures quite suitable for the purposes of the lower classes and the teacher should study the instincts and inclinations of the children and know the amount of previous knowledge derived from the course of object lessons, to be able to decide in the selection of suitable pictures for his purposes. The necessity for the use of coloured pictures will exist only for a time and soon pictures in 'black and white' can be brought in and the teacher can easily make a collection of this latter kind by making cuttings from illustrated journals. One other point that should be borne in mind in the selection is that the pictures must be clear and of sufficient size to enable children to make out from some little distance. In the first pictures brought in, unless they relate to familiar objects, whether they contain single objects, or groups of objects, there should be sufficient facility in them for the pupils to make use of their previous ideas to realise the new objects. As the power of observation and ability to concrete in the mind from a pictorial representation begin to develop pictures representing objects in various attitudes of action should come in. The aim of the teacher in picture reading should be to secure, as in the case of object teaching, quickness in noting and readiness and clearness in saying what have been noted in the picture. When pupils are taken through a course of lessons in picture reading they will be able with great ease to understand pictures in school-books and realise the matter contained therein.

The first lessons in picture reading need active work and skill on the part of the teacher. The picture should be exhibited before the class in such a manner that all the children can have a full view of the picture. Light and range of vision should be carefully remembered. It may be put up on a platform or on an easel; or it may be hung up on the wall and the children required to gather in a semicircle near it. Now the children should be told to look at the picture, and, having allowed sufficient time for them to observe it, the teacher should, by means of questions first on those details of the picture that are prominent and then on those that he thinks might have escaped their attention, ascertain that the essential parts of the picture are not overlooked. He should then lead the pupils to think of the linking details in the picture and as far possible connect these with the previous knowledge of the children. When in this manner the picture has been sufficiently studied by the children, the teacher should collect the various points elicited into a description of the picture to serve as a model for the children. This description should be done part by part, and at each stage sufficient reference should be made at the picture-details concerned. When one stage of the description is gone through, the children should be required to say again as far as the teacher had gone. The test of the efficiency of the model will consist in the order and in the number of the statements made by the children. The other stages of the lesson should be gone through in the same manner: and finally, one or two children should be required to say the whole after the model of the teacher. When one or two more lessons on similar pictures are done in the manner indicated, the children will get to know how to describe any picture of the kind without much guidance from the teacher. For a next course the teacher will place before the class the picture and give the children a few minutes to observe it as before. He will then call on some one child to describe it. The other children will be required to be attentive so as to be able to detect mistakes and omissions. Then another child will be required to do the same and then another. It will be found that, in conducting lessons of this kind, many children offer to do the description. This is an indication that their interest has been excited, their attention has been kept up and that they have acquired confidence to stimulate the others. Such a spirit should be encouraged in the children of course limited by the time at the disposal of the teacher. The work by the children with reference to the picture being done, the teacher for his part will point out how their observation might be supplemented by other details furnished by the picture which had escaped their observation, and draw out enough from the pupils by requiring them to exercise their imagination and other powers, in order to ensure a complete description of the picture before them. Finally the whole will be gone over again as already indicated. This method of procedure is something similar

to what is done in lessons on story-telling which forms a part of the course in the lower classes. It is needless to add that these lessons in picture-reading should be short and lively and should be gone through in the conversational form mainly.

Only a few points are here indicated and these should be taken as hints to chalk out a course of picture-reading for the lower classes. The importance of these lessons consists in the power they give to appreciate the illustrations in the class-books which children have to use later on and in the exercise they furnish to their mental powers leading them to realise and make their knowledge exact.

The Place of Modern Languages in the Secondary Curriculum.

By A. C. BENSON.

The late Archbishop Tait was once asked whether he did not think that Church affairs were in a critical condition. He replied humorously that he could never remember the time when they had not been critical. I suppose that we are always apt to focus existing difficulties, and to believe that they are of a critical kind. Still, with all due caution, I think that we are justified in considering the present condition of secondary education to be somewhat critical. There is a good deal of dissatisfaction abroad—dissatisfaction both deep and wide. Moreover, there appears to be a general consensus of feeling among educators, that education is in urgent need of simplification. The plain fact has been ignored in recent educational reforms that, if you want to pack a bag you can put into it a few big things or a good many small ones, but you cannot put into it a large number of big things. Something can be done by rearrangement; but, even so, the process has been apt to resemble the packing of the bag by the White Knight in "Through the Looking Glass." You will remember that the Knight saw in Alice's hand a dish: he asked what it was for, and the answer was that it was meant for plum-cake. The Knight replied that it had better go into the bag, because it would come in handy if they encountered a plum-cake in their travels. The operation was still further complicated by the fact that the bag was already nearly full of fire-irons and carrots, and that the Knight fell into the bag himself in the course of packing it.

Well, the educational bag is already full of inconsequent objects, things of great intrinsic value; and the attempt has been constantly made to introduce other useful materials into it, to provide for all sorts of contingencies; moreover the reformer has, in one or two notable instances, fallen in himself, head downwards; and this has not tended to simplify matters.

The truth is, that, while every one who has tried his hand at reforming education has been convinced of the necessity of simplification, most of the attempts at suggesting a cure have been made by enthusiasts for a particular

subject, and each enthusiast has always claimed that, whatever is to be put in, room must be found for his own particular subject, with the result that half the contents of the bag protrude awkwardly from the orifice, and the rest are still scattered about the room. What we want is some correlation, some co-ordination; and it appears to me that the only solution is for educational reformers to agree upon some simple core of education which is well within the holding capacity of the average mind; and that then room should be found in the receptacle, not for every other subject of importance, but for a selection of subjects suited to the particular mind in question.

One cannot always be reverting to first principles in such an address as this, or one becomes like the preacher who always began his sermons with the Creation and the Fall; but, at the same time, though I do not mean here to try and state what the objection of education is, I desire to define clearly what I believe is the only hopeful method. The disaster which results from the overcrowded curriculum is that the mind of the pupil becomes merely the bucket which is let down into the well: what we really ought to aim at is to stimulate a child's imagination and reflection in such a way that it becomes trained to co-operate, reasonably and independently, with the teacher, and reacts on its material. This is a large philosophical formula, an elaborate description of what is really a very simple process. In the congested curriculum the learner just does as he is told, with the cheerful submissiveness of immaturity; and one of the reasons why the minds of the younger generation tend to prolong their immaturity longer, I am quite sure, than used to be the case, is that mental independence is not even aimed at in our present system. What one ought to desire is that the learner's mind should sympathize with the process, should have some sort of an inkling of what is going on; should not have its thinking done for it, but should be encouraged to draw its own conclusions. This is only possible when some sort of a mastery is achieved in a subject; when the mind, instead of scrambling and slipping among the data, has the data more or less firmly in its grasp. And thus the objections which I feel to the present system—to the simultaneous acquisition, on a minute and philosophical method, of classical languages—are twofold. I think that the material in the first place is inadequate, because the ancient literatures do not provide sufficient imaginative stimulus in the earlier stages; and, secondly, the method is unsatisfactory, because an erudite knowledge of forms and usages is insisted upon, instead of a practical and working knowledge of them. When one is dealing, as the teacher for the most part has to deal, with average minds, one's aim is not, or ought not to be, to narrow the mind, or to specialize it, or to predetermine its future. Yet the average boy trained on classical lines is trained on a professional system which produces as its best fruit a crop of specialists, dons and schoolmasters, professors and men of erudition. Not only is this not a desirable ideal; it is not even a practicable one; and to submit an average intelligence to exactly the same training which develops as its perfect work the pundit and the *savant* seems to me to be a deplorable mistake; and here I may add that it is to me most encouraging and stimulating to find that the Warden supports this view.

I do not at all desire to belittle the results of the classical system in the past. The old humanists made of the classics the most perfect educational

instrument then possible. But, where it is possible for us to survey close at hand a complex social organization, an elaborate historical development, and an infinitely wide scheme of Nature, interpreted by scientific discovery, the students of a past era had only the classics to work upon. It was, and could be, only a *provisional* scheme of education; and those who look to the classics now as an all-embracing treasure of culture are simply ignoring the development of the world and mistaking the means for the end. Of course, we do not want, if we can avoid it, to break too abruptly with the old; we desire to make the old run smoothly and melt into the new; but the rate of advance in such matters is not, as is often believed, a compromise. The pace must be the pace of the slowest. The most that the swift can do is to prevent things from becoming stationary. But there do come times when the retention of the old bottles endangers the expansion of the new wine; and then it becomes a duty to insist, first, upon a revision of methods, and, secondly, upon a rearrangement of material.

I have long regarded it as an incontestable fact that the retention of two dead languages in a secondary curriculum is an impossibility. Greek and Latin are difficult subjects, and, if they are to be retained, they must hold the field and other subjects must be frankly discarded. I believe myself that a thorough education in pure classics would be better training than the diffuse smattering which is now supposed to be an education; but I do not think that it would be an ideal education, and I am sure that it is wholly inadequate to modern needs. When one reflects upon the vast intellectual expansion that has taken place within the last fifty years, in religion, in science, in history—when one considers the immense output of modern literature, it seems to me simply grotesque to confine the attention of boys to ancient master-pieces. The old theory of classical education is a dignified ideal, but it is no longer practical. Its continuance has resulted in the most disastrous thing from the intellectual point of view, in the world—a frank cynicism as the usefulness of education and a loss of active faith in its benefits. I am not afraid of the word “utilitarian.” A friend of mine told me the other day of an American educational theorist who went about everywhere delighting audiences with a lecture of which the text was: “Culture means efficiency.” It does, in the sense that it implies and includes it. But culture means a great deal more than that, and when you have arrived at efficiency you have not got half way. On the other hand, a culture which does *not* include efficiency is a very invertebrate thing, and generally ends in including nothing in particular. I believe that it is the duty of educators, first, to see that parents and pupils alike are convinced of the usefulness of education; and, secondly, to see that the idealistic element is not extruded.

As our Chairman said, in his valuable and suggestive paper that appeared on the subject in the *Times* a few months ago, the key of the situation is in the hands of the Universities. A headmaster may point to his modern side, and say: “There is a utilitarian education for you, if you desire it”; but the truth is that most parents of children who show any intellectual promise desire that their children should have the chance of a University education; and therefore, as long as the older Universities make classical languages a *sine qua non* for entrance, only boys who are frankly destined for commercial careers can venture

to drop classics; and thus the comparative failure of modern sides, so gleefully indicated by classicists, is due to the fact that they have not had the best material to work upon. And, moreover, while there is a preference for University men as teachers, it has not been easy to get men who are really equipped for the teaching of modern languages. If once this reform could be forced upon all Universities, and if a modern language could be made an alternative for a classical language, the battle would be in our hands.

The defenders of Greek and Latin in education have, of course, plenty of effective things to say. They can point to the fact that Latin is a fine educational instrument, and that it forms the etymological basis of most modern languages. They can point to the splendour of Greek literature, and say with Goethe that Greek is the sheath into which the dagger of the human mind fits best. But they make the disastrous mistake, which Mathew Arnold long ago pointed out, of confusing a learned and a liberal education. They handle the languages from a professorial rather than an educational point of view. In their zeal for mental discipline, they send the victim to the rack rather than to the gymnasium. They keep the pupil loitering in the ante-room of grammar, never aware that he is in the presence of literature at all. They leave the average boy a sciolist in classics and an ignoramus in everything else. I have seen the process repeated over and over again; I have turned the levers of the rack a hundred times myself, till I could bear it no more. The pity of it is that the ideal is a fine one, but it has no beneficial result. Just as the strategist said admiringly of a famous charge: “It is magnificent; but it is not war,” so an old classical teacher can say regretfully of the classical system: “It is magnificent; but it is not education.”

Let me now outline what I believe to be the central core of education of which I have spoken. There must be, I think, some religious instruction; there must be some popular scientific teaching, given by means of lectures and demonstrations. There should be a careful training in arithmetic and simple symbolical mathematics. A boy should have an acquaintance with the outlines of ancient and mediæval history and a sound knowledge of modern English and European history. It is grotesque that a boy should be acquainted with the shadowy adventures of Numa Pompilius and Timoleon, and have no sort of knowledge of Metternich, of Cavour, of Sir Robert Peel. Then there should be a sound knowledge of modern geography, because geography is the subject which forms, so to speak, a bridge between science on the one hand and history on the other. To illustrate that, let me mention the fruitful results which sprang from the friendship of Boyd Dawkins and Freeman. Freeman learnt from Boyd Dawkins the structure of England, and we all recollect how large a part “the outcrop of basaltic rock, and the sweep of chalk down” played in Freeman’s view of historical and sociological conditions.

And so we come to the linguistic basis of education. The ideal would, I believe, be that a boy should learn two languages—a dead language and a living language. I am here torn between conflicting claims. I myself believe that probably the best outfit would be a real and vital knowledge of French, so that a boy could not only read it as easily as English, but express himself in it with

absolute flexibility. The main reason why I would unhesitatingly choose French from the linguistic point of view is that, with its moderate inflections, it comes half-way between the purely synthetic Latin and the purely analytic English. I would myself draw the line here, adding to it the teaching of English, both composition and literature. I believe that this is all that can be safely put into the bag, and I believe that a boy educated on these lines would have a chance of being a well educated man.

If it proved possible to add a further language, I should myself be inclined to add German; but I should only attempt to give a reading knowledge of it, and not attempt composition unless a boy showed linguistic aptitude. The point, I believe, to aim at is to give all boys a thorough knowledge of one language besides their own. I believe that the intellectual gymnastic at present given by means of two dead languages and one living language is a fruitless gymnastic, and only ends in mental confusion. May I tell a personal experience of my own that brought this fact home to me in a convincing fashion? I had at one time to teach a large division of big boys at Eton. There were boys of little intellectual capacity, but pathetically inclined to be industrious, and, being boys who were prominent socially and athletically, anxious to keep on the right side of the authorities. They were absurdly and painfully ignorant of classics, which had been sedulously taught them from their earliest years. We used to have a Greek and a Latin exercise every week. I used to take some simple rule, like the rules of sequence of tenses in the dependent question. At the end of an hour they were capable of putting simple dependent questions into Greek with moderate accuracy. Later in the week came the Latin exercise. I would attempt the dependent question again, and the boys would all, or most of them, with conscious pride, construct the Latin sentence on the rules of the Greek sequence. By the end of the hour the demon had been exercised, and they could do the dependent question on the Latin method; but when we came to the Greek exercise of the following week they would do the Greek sentence by the Latin rules, and so we went on dodging backwards and forwards, the demon being cast out, and reappearing round the corner with Satanical regularity. Heaven alone knows what tricks the imps were meanwhile playing with the French exercises!

Now it became clear to me that, instead of one subject helping another, in the case of these boys, the two subjects were merely cutting each other's throats in an intestine warfare. If the boys had had one usage to master, they could have done it, and they might possibly have mastered an ancient and a modern usage. But about that I have my doubts.

It may be thought that I have already sacrificed my ideal of having one dead and one living language taught. It is true. But, from the practical point of view, the pressure in favour of retaining Latin is so strong that I would reluctantly retain it. The difficulty about Latin is that, though it is a severely logical language, and is therefore a good gymnastic, there is hardly any literature in it of a kind which appeals to boys without distinct literary gifts. For many reasons I should wish to retain Greek in preference; but one must take account of the force of public opinion; and, though I regret the extrusion of Greek, I would do

my best to throw it overboard, because it happens to be the most defenceless subject and to be nearest to the bulwarks.

It must be borne in mind that hitherto I have been catering only for the average boy. There are a great many average boys, and for most of them the subjects which I have indicated are sufficient; but the curriculum I have sketched would not take up all the room in the case of abler boys, and for them I would cater according to individual ability. A boy with scientific tastes would do more science; for boys with linguistic gifts I would freely add German; for boys of real linguistic and literary ability I would add Latin and Greek, but as special subjects. This, however, is treating the question from the ideal point of view; and, as a compromise, I would have Latin taught to all boys, but I would teach it logically and grammatically rather than in a literary way, and I would throw the real energy of the linguistic teaching into French. This I would make as perfect as possible, conducting the lessons in French, paying attention to pronunciation and conversational expression, and aiming above everything at having composition taught flexibly and frequently. The point would be that the subjects would play into each other. History could be read in French, history and geography questions could be answered in French; and the result would be that the boy might feel what he seldom feels now—the joy of mastery. Try the simple experiment of asking a young man at the University, who has been taught Latin perhaps for ten years and Greek for eight, to read a simple passage into English from an easy author—he is not ashamed to confess that he can do nothing of the kind. Try the further experiment of asking him to write a short letter in either language, and you are met by an incredulous smile, as if you had made a suggestion that no sane person could have conceived. We may laugh cynically over such a result, but we ought really to be overwhelmed with shame and contrition.

Now, to reduce the main question to its simplest terms; What is the main object of linguistic training at all? It is, I conceive, twofold. Of course, it is, like all other mental exercises, a means of strengthening the memory and giving vigour to the brain; but the special training that comes from linguistic work, and which nothing else can give, is the training which is given by composing in another tongue. One has, in the first place, to arrive at the precise meaning of the passage which one is translating: to penetrate the writer's ultimate and innermost thought—in itself a valuable exercise. But that is only half the process. The next is to transpose the thought, so to speak, into another key; or, to dally with metaphors, to fuse the thought into its component metal, and to recast it in a new mould. Of course, this is done, and most elaborately and finally done, by advanced classical students. But one of the disastrous results of teaching boys three languages not their own, all at once, is that they never see far enough into the structure and essence of a language to arrive at this process at all; they have no mastery of any of these three languages, and no vocabulary. Thus the process, in their case, is not a transmutation of the thought, but a mere literal rendering of it with a servile fidelity; and when the same process is applied to verse composition it resolves itself into the wholesale insertion into the piece of such fragments of poetical writers as they can introduce—"get in," it is familiarly called.

My own belief is that, if the attention of boys were concentrated on one language, they would attain the knowledge of structure, idiom, and vocabulary that is essential to the success of the process, and, instead of constructing a dreary and ugly mosaic in three practically unknown tongues, they might be receiving the benefit of a process which would at once be disciplinary and stimulating. Moreover, a modern language has for this purpose an immense advantage over an ancient one—that the whole sympathy of thought and the intellectual purpose of modern writers are directed to a familiar class of ideas and subjects, and the intellectual processes follow congenial lines. One of the great advantages of an ancient language for advanced pupils is that it produces a really very strenuous kind of mental gymnastic. A boy has to write like Cicero or Plato upon subjects with which Cicero and Plato were not even dimly acquainted, and of which they did not form the faintest conception; and thus the old language has to be ransacked and its resources strained to meet the demand. When this is done to perfection, as in Sir Richard Jebb's translation of the "Abt Vogler" into Greek choric metre, the result is a very supreme intellectual *tour de force*, even though it may be doubted whether a Greek tragedian would comprehend the drift of the passage. But such efforts are altogether outside of the capacity of the average boy; and thus we have a supreme instance of the application of a process that might be of high intellectual value if the boy's resources were equal to the strain, but which in the absence of resources is profoundly discouraging and stunting. It is one of the most palpable failures of the idealistic method.

And then, too, there comes the other part of the linguistic process—the advantage to be gained by reading books in other languages. This, again, is of high intellectual value. It gives mental proportion, mental perspective; it shows one that people of different nationalities approach subjects from different points of view; it gives largeness and breadth to the mental horizon; it corrects the insularity and self-satisfaction that is one of the worst qualities of an complacent and self-absorbed nationality; it introduces the mind to a whole range of novel ideas and emotions; it shows the different notation of the scale of qualities among different nations. But all this is only possible if a boy can get, so to speak, inside a language, if he can appreciate style, word-melody, cadence, lucid expression. I venture to believe that this is possible with a single language only, for most people, and that it is far more possible with a modern than with an ancient language, for the simple reason that the modern language is nearer and more akin. It would be possible, no doubt, to arrive at it to a certain extent with an ancient language, but only by devoting a far larger amount of time and work to the subject than need be given to a modern language, and more indeed than, with the pressure of subjects, can be allotted to any one subject at all. In any case I do not think that Latin literature is sufficiently great to justify so much time being given to it: the mind would be a starved one when all was done. If it were possible to do the same in Greek, there would be more to be said for it; but, in the first place, it is absolutely impracticable, and, in the second place, I cannot help feeling that Greek literature is really of too lofty an order to be made appreciable by average minds. Moreover, one of the most

stimulating elements in literary training—the biographical element—is lacking in the case of the ancient languages, except in a very few instances.

There is a fine passage in Froude's "Life of Carlyle," which shows how deeply stimulating an effect the study of the life and writings of Schiller had upon Carlyle. The stainless character of the great German dramatist, his enthusiasm burning like a clear flame, his despondency, his bad health, his religious struggles, triumphant faith in virtue and nobleness, all sank deep into Carlyle's mind. Now what ancient author can be approached like that? We may perhaps penetrate the mind of Plato, and on a far lower plane, and with somewhat discouraging results, the mind of Cicero; but most of the writers of antiquity can be little more to us than grand ancient ghosts, or statuesque images, caught in a single splendid pose. With modern literatures it is very different. We can draw close to great modern writers; we can realize their surroundings, their circle, their aspirations, their limitations in a way which makes their writings glow and tingle with life and sympathy. We forget how dependent immature minds are upon all these side influences, and thus we throw aside the complex instrument which is ready to our hand, in favour of a cumbersome ancient weapon, and all for the sake of dignified associations which have no message for the spirit of boyhood.

Of course one of our difficulties in these later days is the immense accumulation of literary treasures of all sorts; but we are forced to select; and half the wretchedness of the present situation is that we will not face this difficulty, and, in a feeble effort to maintain our hold upon all, we make all ineffective. The time has come for us to make our choice. The world clamours for education to be made practical. Let us use that clamour wisely for philosophical ends. Let us take as our basis of linguistic training a language of which the utilitarian benefits are plain to the man in the street; and, having so chosen it, let us make sure that we use it from the idealistic point of view. The literary effects of a modern language can be made to appeal to a far wider circle of immature minds than the literary effects of the ancient languages. Now, in clinging so relentlessly to the old, we overlook the fact that most of the boys we educate never come under literary influences at all. I began my own work as a teacher, knowing nothing practically but Latin and Greek, and with the firmest faith in their educational value. I was gradually converted to a hopeless mistrust of their capabilities except in the case of a small percentage of high intelligences, and I will venture to say that any man with similar experience, who will face the situation candidly and without prejudice, is bound to come to the same conclusion. The difficulty is that it is so hard to dislodge the classicist: he maintains the supremacy of ancient literature, and, if one proves that under the present system the majority of boys never arrive at the preception of the classics as literature at all, he falls back on their superiority as a mental gymnastic. I have had the chance of seeing the results of our system at a later stage, and I will venture to say that my own University is crowded with young men capable of intellectual interest, whose natures have been simply starved by the meagreness of the fare provided for them.

I claim, then, that a single modern language should be made the basis of our linguistic instruction; and, though I am inclined to think that we Englishmen are more in need of the kind of message which German literature can give us—its lofty emotion, its intellectual enthusiasm, its unaffected idealism—yet I believe that French is probably the more practical choice, because of its greater variety, its more tangible imaginativeness and its exquisite precision and delicacy of literary form. * * * —*The London Journal of Education.*

The Advantages of the Metric System.

A bewildering number of weights and measures of various origins (all the commoner ones being Italian) are in use in the British Isles. Parliament has often tried to reduce them to uniformity by selecting a few, and trying to make the rest obsolete. These attempts have only partly succeeded, because the selected measures were no better than the rejected local ones, and were also too numerous and badly connected. For instance "gill" in the northern counties means one thing in popular speech and another by law, the customary gill being double the legal one (which was born in 1824). The next attempt at reform will probably be a far more successful one; it will select the metric measures. These, alone of all the measures used in the British Isles, form a simple and complete system, which can be learned in ten minutes, and in which each name has the same meaning all over the world. These measures alone are used in common by us and the rest of the civilised world.

It is true they are not yet in such general use here as on the Continent, but the use of them is extending daily, even though the great weight of Government practice (in the Custom House, Post Office, Arsenal, etc.), is at present thrown on the side of other and less convenient measures. The recent adoption of the metric system by Messrs. Kynoch in their nine factories has drawn much public attention, and rightly so: for the inference from it is obvious: namely, that if it is worth the while of this enterprising firm to incur the cost of this change before most of Britain has made it, how much more will it be worth while for other firms to make the same change in company with the rest of Britain! If it pays Messrs. Kynoch to adopt the metric measures, even when that adoption means disagreement with many of their customers, how much more will it pay the rest of us to adopt the metric measures when that adoption means agreement with all the world British and foreign!

That is why metricalists ask for legislation. About the most expensive and troublesome way in which an improvement of this sort can be made is to wait while it slowly permeates the community by its own unaided merits. It is as if one should leave a drainage system to the sanitary enthusiasm of individual householders—the greater number would find their isolated attempts rather worse than useless. Or it is as if the reform of the Calendar in 1742 had been left to individual choice. There are things, such as language and measures, in which the average man cannot possibly be free to choose the best; he must conform to whatever set of customs Chance has imposed on his surroundings, however clumsy those customs may be. Only a collective effort can produce any

real improvement. This general truth is not made untrue by the fact that in some limited domains, as in that of scientific investigation, there is partial freedom; especially as it is in these very domains that we find the metric measures most used.

The advantages of using measures which mount by the same steps by which our numbers mount, namely, the steps from 1 to 10, that from 10 to 100, that from 100 to 1,000, and so on—this advantage is only one of the advantages of the metric measures, but it is a very practical one. Take an example:—A yard of rail weighs 95 lbs. (or 3 qrs. 11 lbs.); how much does a mile weigh? Answer not easy. But try the corresponding metric problem. A meter of rail weighs 44 kilograms; how much does a kilometer weigh? Answer 44,000 kilograms or 44 tonnes. One could easily give a hundred such examples. The saving of time from this cause alone to business men and workers of all kinds is great, though difficult to estimate in hours per year. To schoolboys the saving is still greater, and can be estimated with some exactness, from figures given by many schoolmasters. The saving in educational time by the exclusive adoption of the metric measures would be about 200 hours per child. If coinage were decimalised, too, (which could be done in any one of several ways) the saving would be increased to about 350 hours. That is, about 200 million hours a year for ever of school-children's time can be saved by a reform which would cost us adults on the average about the equivalent of a day's work (adding the needed mental exertion to the cost of some new weights, meter-sticks and gauges). Surely this would make the reform worth while, even if there was no commercial or industrial benefit to be attained.

The opponents of the metric measures seldom try to defend the weights and capacity measures and measures of area which are at present chiefly holding the field in the British Isles, but they maintain that the measures of length, especially the inch, are fairly good, and too firmly embedded in our habits of mind, and in standard sizes of various goods, ever to be replaced. The experience of other countries proved that the difficulty of change is not great in practice, and it will be less here than elsewhere, because there will be no non-metric country left to hamper us as we have hampered others. As for standardised articles, the actual sizes seldom correspond exactly with the names (such as "1½-inch") by which they are known; so that if they also fail to correspond with any exact number of millimeters we shall be no worse off than before. A set of universally recognised standard sizes for some articles is very desirable, but can hardly be attained until there is a universally used standard of length.

Some who admit the desirability of reform want something revolutionary, such as counting by 12 or 8, instead of 10; so that 1907 would become 11212 (one dozen gross, one gross, 2 dozen and eleven) or 3563 (3 cubes of 8, 5 squares of 8, 6 eights and 3). Others, less courageous, want to take some familiar unit such as the inch or foot or yard and found a new decimal system on that. This would be as much trouble to adopt as the metric system, seeing that all the old measures except the one privileged one would vanish, and after all we should be as far as ever from mutual intelligibility with other nations.

The entire metric system can be put in 81 words, thus:—

LENGTH	BULK	WEIGHT
Milli-meter	Milli-liter	Milli-gram
Centi-meter	Centi-liter	Centi-gram
Deci-meter	Deci-liter	Deci-gram
Meter	Liter	Gram
Deka-meter	Deka-liter	Deka-gram
Hecto-meter	Hecto-liter	Hecto-gram
Kilo-meter	Kilo-liter	Kilo-gram

Each measure is ten times the one above it, for instance a centimeter is ten millimeters. The relation between the three tables is that a liter is a cubic decimeter, and a liter of water weighs a kilogram; 1000 kilograms are a tonne. A square dekameter is called for shortness an Ar, a square hectometer a hectar. Those 81 words form the whole of the "going to school again" which some people seem to fear the metric system would impose on them. Ordinary newspaper print is a millimeter high. A penny-stamp is 23 by 20 millimeters.

The Bill which passed the House of Lords in 1904 was supported by Lords Belhaven, Kelvin, Rosebery, Spencer and Tweedmouth. This shows how free from party is the agitation for the reform, so there should not be much time occupied in passing a metric bill, especially if, as we are informed, a majority of nearly 2 to 1 in favour of it is assured.

Report on the state and progress of education in the 3 Circle.

By MR. J. A. YATES, INSPECTOR OF SCHOOLS.

Controlling agencies.—The reduction in the area under the supervision of each Sub-Assistant Inspector together with the increase in the number of Sub-Assistants, most of whom are young, well-qualified and energetic, must in the long run result in an improvement in primary education. They have held central classes given model lessons: while the examination *in situ* has afforded opportunity for more suggestion on points of method in particular and for closer scrutiny of the needs of schools in point of appliances and accommodation. The qualifications and intelligence of the supervisors leaves much to be desired: it is to be feared, now that their honesty is not above reproach. The pay offered them is insufficient to attract good men: on the other hand, in some cases the work thrust on them is more than they can properly do. Two Sub-Assistants report only one supervisor in their ranges: in such cases the schools can only be visited once a year. I fear it is not probable that a better class of men will be obtainable until the pay offered is more attractive. Many of the supervisors in the ranges possess only Lower Secondary qualifications: more cannot be expected when the pay is so low as Rs. 20—1—25 or Rs. 25—1—30. Even a matriculate has qualifications too low to do much good. Men who have

ideas which they can adapt to the needs of each school making stimulating and fruitful suggestions are needed.

The abolition of examination for results grants gives more opportunity to the inspecting staff for their legitimate work, suggestive criticism: much is doubtless being done by model lessons and oral instruction: at the same time the visitors' books of the schools ought to be made more useful to the teachers, if the inspecting officers inscribed in them, in the vernacular, for all primary schools, their detailed suggestions for improvement in school organization, discipline and, particularly, methods of teaching.

Secondary Schools—High Schools with Lower Secondary and Primary Departments.—

In treating of high schools I venture to lump the three departments together. The Upper Secondary classes can only be considered as the culmination of the two lower departments. At the same time they can, in some respects, be considered separately. Hitherto as long as the Lower Secondary examination existed, there has been a tendency to regard the Upper Secondary department as having altogether different needs and supplying a different kind of education, because looking to a different examination, viz., the University Matriculation examination, as its end. The abolition of the Lower Secondary examination has made it possible to regard the instruction given in a high school as uniformly progressive towards one goal.

Staff.—Generally speaking the staff of Upper Secondary department of high schools is much better qualified to do the work it pretends to do, than the staff of either of the other two departments. More attention is paid to general educational qualifications and better pay is offered. As far as I have seen the Upper Secondary staff of high schools is on the whole fairly intelligent. But the practice is to give lower and lower pay and to demand lower and lower qualifications as the classes descend. Consequently the work of the classes below the fourth form is generally poor. The inferior qualifications and the inferior capacity of the lower teachers might be compensated to some extent if their methods were more regularly scrutinized and directed by the Principal (in the case of a college) or headmaster. But such scrutiny and such direction is rare generally, as far as I have seen, because the head of the institution himself has more work than he can do. The masters in schools look to their own work alone, follow their own methods of teaching. There is too little of co-operation among the members of the staff. If all the teaching of one subject were, under the general direction of the headmaster, guided by the chief teacher of that subject in the Upper Secondary department and discussed by the other teachers of the subject with him, at least a sense of community of aim in mere teaching would be developed. This absence of common aim is the chief feature of the staff of the schools: it, as much as the inferior qualifications of the lower teachers, is in my opinion responsible for the fact that the schools do not accomplish as much as they might.

Building, accommodation and furniture and apparatus.—Generally speaking in this class of schools there is not much wanting in the way of building. One or two schools need an extension of building to accommodate classes that have

grown. One school has a scheme for a complete new building in good grounds. The Mrs. A.V.N. College, Vizagapatam, has just moved into a really fine, well built stone building that is a model for the whole circle.

The furniture with which these schools are supplied is only fairly satisfactory. More reversible benches are needed; the ordinary bench is unsatisfactory in that it must be placed against the class room wall to give support to the pupil's back. The result of this arrangement is that the line of vision is low for at least two-thirds of the class, with reversible benches the pupils can all be seated facing the front of the master in parallel rows. In the hollow square arrangement with Mrs. A.V.N. colleges without backs there is obviously another disadvantage, viz., that all institution must be done upon the knees, with the attendant bad results of stooping while there is use of the support is insufficiently stable, and of slovenly writing. In the resurfacing seen. College advantage is taken of a carpentry class attached to the clear and involve supply the school with excellent single wooden desks. Generally,

In the matter of adequate supply of black-boards, the necessity for frequent teaching apparatus, is to be forgotten: consequently the writing with chalk is not the amount of apparatus strain upon the pupil's eyes.

not so well equipped. apparatus the subject which is usually best applied with Geography are, in view of science. Here the Educational Rules lay down definitely or antiquated. Model maps that is requisite for recognition. Other subjects are found. As far as my own experience goes they do not exist. Collections of specimen products are of modern methods of teaching the subject, inadequate of Historical pictures, relief maps, though good ones are available, are seldom nor are Historical maps.

Curricula and methods—Equally non-existent. History is not provided with sets those outlined in the Manual as are a feature in good modern History teaching, University Matriculation obtained either by purchase or by private construction.

Curricula and methods of teaching—The curricula followed are usually the Mrs. A.V.N. College Educational Rules or such as the exigencies of the made at bifurcation, for Examination demand. The problems of well-organized to proceed to a University thought out. One honorable exception again is found in unacademic career. The Vizagapatam, where an interesting attempt is being made to provide two types of training, one for those who intend of the work done in the ordinary course and one for those who are designed for an on his own lines: his feature, I have noted under *Staff*, of lack of co-operation teachers below and above him. He does not know what stock of knowledge the boys have when they come up to him nor what the teacher above will demand from them when they are promoted. What is wanted is a progressive scheme of teaching worked out in detail by each school in accordance with its particular needs for the subjects; each form should have such a detailed curriculum, concentric, of the form or forms above and below in which the subject: the plan of development may be either simply progressive or At any rate all teachers should know what is being done in their

Even a m

subject throughout the school. In this matter again the Mrs. A.V.N. College under the able guidance of its Principal, Mr. P. T. Sreenivasa Aiyangar, leads the way.

Coming to details of teaching, I find, perhaps in part as a result of the absence of a thought-out scheme, that methods of teaching are in a state of more or less stagnation. It is rare to find a college or school where up-to-date educational publications are taken in or, if taken in, are studied. The libraries and reading rooms of schools generally need supplementing with books on method and with magazines that give information on the latest ideas of teaching a particular subject and of the apparatus requisite for such teaching. I should say that with honorable exceptions in a form here and there, where the teacher is professionally keen and a school where the head is an enthusiast, the aim of teaching is not so much the training of intelligence as of verbal repetition and production by rote. The teaching of English is unpractical: it is forgotten that this is a foreign language and that therefore opportunity must be given for speech as a precedent to writing. To this fact in part I ascribe the abnormal percentage of failures in the University examination. Equally unpractical and valueless, from the intellectual standpoint, is the teaching of all the other school subjects. Realism in Geography teaching is neglected; in Science, Geography and History teaching, the training of the reasoning powers of the classes is hardly recognised.

Geometry teaching follows on the old Euclidean lines: arithmetic teaching is unpractical either for academic or unacademic purposes.

With regard to the teaching and the use of the vernaculars a similar unpracticality, I fear, prevails: at any rate the use of the vernaculars in teaching non-language subjects in the lower secondary forms has not found universal acceptance, despite the obvious advantage of getting directly and quickly at facts such as geographical or historical facts and the greater ease of drawing deductions from facts, and despite the very obvious waste of time involved in translation of English text-books, both on the part of the teacher in rendering the ideas into the vernaculars and on the part of the boys in trying to remember the exact vernacular meaning of particular sentences in the English text-book.

Opening of a IV standard class.—This is generally recommended to schools which at present have no IV standard, so that the teaching of English in the school which provides English teaching for the locality may be under the same control from the beginning. The recommendation has been carried out in one or two instances and will be carried out, I hope, in the course of the year elsewhere. In this connection I may state that the appointment of a lower secondary teacher to this class is a mistake: his knowledge of English, for the teaching of which the class is opened, is, from all points of view, inadequate. At least a trained Matriculate is required, if anything is to be made of the class.

Lower secondary schools with or without a Primary department.

I. *Abolition of the Lower Secondary Examination*.—This has had already a beneficial result on the methods of teaching: as long as the examination set the standard for teaching, so long more attention was paid to "grammatical gym-

nastics" in the teaching of languages than to the elucidation of meaning and to giving the pupils a control of the linguistic instrument they used. It has resulted in a temporary diminution in the strength of the Lower Secondary forms: it is anticipated, however, that when the value of the school-leaving certificates is recognised (and that shortly) the strength will again increase.

2. *Staff.*—The qualifications of teachers in the Lower Secondary Department cannot be said to be by any means adequate. The Assistant Inspector of Schools, Godavari-Kistna division, reports that with three exceptions the schools in his division are officered by certificated Marticultates. This is due to the fact that the pay offered is much less than it used to be. The Headmasters of such schools seldom at the present time get more than Rs. 40. This lowness of salary is found equally in public and in private schools. It may be added that the class of men that gravitate into the schools is largely that body of Matriculates and F. A.'s who have failed to get into Government service. To effect real progress at least the Headmaster should be a trained graduate. In the Ganjam district there are only three Lower Secondary schools in the plain tracts: the teachers are said to have imperfect knowledge of Ooriya.

"Consequently the Ooriya boys must get instruction in non-language subjects, either in Telugu, a foreign language or in imperfect Ooriya. Special classes with Ooriya teachers, if opened, would attract more Ooriya boys. The Taluk Boards might well attend to this need. A similar want is felt in the Lower Secondary schools which exist in the Agency tracts at Jeypore, Gunupur and Gumma. The absence of co-operation noted under High Schools is of course equally evident in these schools.

Accommodation, Furniture, etc.—The building accommodation provided for this class of schools is usually fairly good. The buildings are well-lighted and ventilated. There are exceptions, however; among the latter there are schools in Gudur, Tiruvur, Nedadavolu and Polavaram. It is reported that the Managers concerned are endeavouring to provide suitable buildings. Some schools are held in private houses. However good a house may be for dwelling purposes, it cannot really be said to meet the needs of education. The chief and most general need under the head of accommodation is the provision of suitable playgrounds. Hardly any of the Lower Secondary schools have more ground attached than is necessary for the purpose of drill and gymnastic. With regard to furniture and apparatus my remarks under this heading when dealing with Upper Secondary schools are applicable with even greater force. The need for practical instruction and the use of realistic methods as a training of intelligence is evident in the lack of really suitable apparatus: maps need renewing, models are not found and generally the surroundings of the children in the schools are not made picturesque or interesting. The Libraries attached to these schools contain many books in English that are above the present knowledge of the children. Good vernacular books are few. Books for the teachers are seldom provided or what there are are out of date.

Teaching.—My remark under High schools apply here also. Inferior textbooks are often found in use. The teachers are unable to discriminate. Non-language subjects are taught through English for two reasons, one that the

teachers have always taught them so, the other that vernacular books available for use in the subjects are often either non-existent or bad and in the case of Board schools such books as there are, are not found on the list. The quality of the teachers' intelligence is low. They do not read books or magazines, but continue on the same lines from year to year. Here even more than in the Upper Secondary classes a foundation of reasoning power might be laid by good realistic teaching in Geography and History. But the teachers themselves do not know how to reason nor do they know as a rule, facts other than those given in the textbook in use. In teaching English the methods followed in the high schools are followed here too with worse results. The teachers know little practical English. They get up the text and give the translation to the boys and insist almost altogether on a knowledge of the meaning in the vernacular. Meaning is not attempted to be taught through English, though it is possible. The attitude of the children is more apathetic and listless here than in the High schools. In some schools drawing is taught, but it too is of a purely formal kind. It has no relation to the rest of the school work, nor is it really taught as a "class" subject. Practical Geometry, which might be begun as a preliminary training to the High school courses, is not done. Arithmetic is too largely a matter of working out a multitude of examples by rule of thumb rather than a medium for training the intelligence. I find that as a rule the material is good, but the life is killed out of the pupils: if an attempt be made whether in English teaching or in the teaching of non-language subjects through the vernacular to make them apply their knowledge and to reason, they readily respond. In the matter of writing, insufficient attention is paid: like most of the rest of the work it is very perfunctory. Children are allowed to make the same mistake (even of spelling) in line after line without correction. In all subjects I am of opinion that detailed curricula are needed, but these the teachers are totally unfit to prepare.

Primary schools—General advance.—Except in one or two ranges which have been affected by long continued drought the number of pupils under instruction has advanced. In most ranges advance, mainly due to the efforts of missionary societies, is reported in the matter of Panchama education. Muhammadan education is apparently much in the same position that it was. The district that is still least progressive in all respects is that of Ganjam. Complaint is made from Itchapur that the Uriya Board schools do not flourish as they ought and that the teachers often pay out of their already attenuated salaries the fees of pupils in order to keep up the strength. From the agency tracts progress, though slow, is reported. Of advance in other directions it is at present too soon to speak with any confidence. The greatest hope lies in the increased number of Sub-Assistant Inspectors who are now able in some ranges to visit their schools twice in a year and in some cases three times. The evils of fraud attendant upon group inspection are very largely diminished by the practice of *in situ* inspection and examination: each school gets more individual attention: the abolition of results grants and the introduction of school leaving certificate together with the age census are producing the effect of preventing the tendency of children to grow younger in proportion to their number of failures in the examination. More attention can now be paid to methods of teaching, to the

building, accommodation and other points upon which recognition is based. It is to be hoped that the efforts of the inspecting staff in instruction to the teachers in model lessons and central classes will bear fruit before long.

Rural Schools.—A number of model school buildings were erected throughout the circle either in villages that possessed no school already or in villages where there was no good building. Reports on these buildings have been separately submitted. On the whole the best work seems to have been done in those villages where it was possible to enlist the interest of the villagers. In these cases it is reported much more than the worth of money allotted was spent. One Sub-Assistant reports that in his range buildings put up for Rs. 400 were really worth when completed nearly Rs. 1,000. In one village the village munsiff, a wealthy man, lived almost night and day upon the building, personally superintending the construction. The interest of the villagers in many places seems to have been genuinely aroused. They have been led to believe that a practical type of education will be imparted.

A number of teachers were sent to be given special training for these schools. Their pay is under consideration. In the Ganjam and Vizagapatam districts proposals have been made for the pay of the teachers, but the proposals are held in abeyance pending the orders of Government. In many of the schools a well and a compound wall are needed. The latter might be provided gradually by the effort of the pupils and the villagers when their interest was awakened. The well, it is said, it will be difficult to so provide. For the type of instruction proposed a well will be a necessity.

Staff.—Generally speaking the teachers in Primary schools are very ill-equipped for the work they have to perform. The percentage of qualified teachers in no range rises above 50 per cent.: in most it is far below that. Of these qualified teachers a very large number possess only an approved service certificate. Of those who have been trained many are out-of-date and others forget all their training. The general educational qualifications, though perhaps inevitably low, are too low for much advance in professional proficiency to be anticipated. Continual pressure is put upon the teachers to qualify themselves, but they are unwilling and unable to do so for two main reasons. From all quarters the complaint comes of the total insufficiency of the numbers admitted into the Training schools. On the other hand, in view of his financial prospects, the teacher does not feel it to be worth his while to forego his petty salary and get trained. Thus the low pay of Primary teachers, as it is the low pay of Lower Secondary teachers, it is that is responsible for the poor quality of the teachers and of the work turned out. The average pay of the Primary teacher is between Rs. 5 and 7. As long as the Municipalities and Local Boards set the standard, so long will the mission and other private schools that pay masters follow suit. In the latter little or nothing by way of fees can be expected. Most of the aided Primary schoolmasters and managers depend almost entirely upon grant-in-aid for their existence, and it is probable that in them no great increase in the way of salary can be expected. But if in the Board schools a better class of teachers were entertained at any rate a higher standard would be set and the better class of private non-mis-

sion schools as well as the mission schools might be expected to follow suit. Better pay would attract better men and would enable them to devote their attention to teaching. At present schoolmasters become petition writers or leave schoolmastering to become canvassing agents for Provident Funds or in some places supplement their salary by giving private tuition to such of their pupils as can afford to pay, to the detriment of honest promotion and of thorough work in the school.

For these reasons, insufficient opportunity for training and deficiency of pay there is generally a great shortage in the supply of teachers duly qualified to teach the IV standard. Recommendations, after careful enquiry, are made to allow experienced teachers to teach a higher grade than that for which by the rules they are qualified. But even with these exemptions the supply is short of the demand. As a result many children leave off education before they otherwise would. Their parents cannot afford to let them leave their own village to read in another village, whose school is provided with a IV standard. Thus, to a considerable extent, the education of the children is stunted earlier than it otherwise would be.

Accommodation, furniture and apparatus.—During the year a number of rural school houses were erected which may be said to serve as model structures. But the work done is very little in proportion to the needs. Besides these buildings, the structures in use for Primary schools are, with a few exceptions of buildings under Local Boards, mission agencies and here and there non-mission private managership, bad in the extreme. Occasionally in a town a good rented house is found in use. But the majority of rented houses are the dingiest of mud and palmyrah structures. Many schools are held in specially constructed sheds which at any rate have space and light and air but are at the disadvantage of being open to the gaze and intrusion of passers-by. In one range the Sub-Assistant Inspector reports that out of 144 schools 58 are held in the village chavadis, which are thronged at all hours of the day with village gossips. There is, however, noticeable, under the pressure of the officers of the department, a slow but continuous improvement. At Anakapalle, for instance, the Municipal Council has put up a good pillared structure for Panclamas. The best Municipal Primary school in all ways that I personally have seen is that for Panchamas at Rajahmundry. Some of the Board Primary schools have good buildings, but these are mostly due to the fact that they were once Government schools handed over to the Local Boards. The tendency is for both Boards and Municipalities to cut down expenditure on buildings. The majority of the schools managed by these public bodies are in rented houses. One Board Panchama school, I visited, was in a low building with no light but that of the doorway and nothing was visible inside but the whites of the children's eyes. Often the rented buildings are very bad, the only condition that they satisfy is that of cubic space and that barely. The atmosphere is fetid, the walls are dirty and the locality is bad. Sheds and chavadis and even pials are better than such buildings. But in hardly a school that I have seen can the space be called sufficient for the purpose of teaching. The children are cramped and if play is the feature of early instruction, it is almost impossible under the conditions. Very few schools have good surrounding space. The best of the schools I have seen

in this respect is the Board Upper Primary school at Kasimkota which has a compound enclosed with a good wall and has a well which the teacher makes use of in his teaching. Most schools that teach only the three R's are provided with a ball-frame and a black-board and that is all in the way of apparatus. Some have benches—generally too high—for the children. But there are still schools that possess nothing in the way of either apparatus or furniture. The inspecting staff are gradually effecting improvement in these respects. In the better schools arithmetic is taught throughout the circle in the earlier stages with tamarind seeds tied in bags of 10 or of 100. In Vizagapatam many of the better schools—and there is one very good private school—have models of fruits, animals made in clay and coloured at Pondicherry. The apparatus that is the worst is that for geography: the maps of the districts, the taluks and of the Presidency, India and the world are irredeemably bad. They are very inaccurate and make no difference that is perceptible between hill and plain. But they are the only Telugu maps available. In some schools there is an attempt to have a school-garden; but the attempt is generally very crude. Still the attempt must be taken as a mark of progress. In teaching hygiene no apparatus is used. Object lessons are taught mainly from cards, the objects delineated often being such as the children will never see in their lives. Attempts are being made to get masters to keep collections of object. Where kindergarten is taught, the apparatus is usually a set of copies for paper-plaiting and folding and for stick-laying.

Teaching.—The all-pervading fault of teaching in primary schools is that memory before intelligence is demanded of the children. From the very beginning words not understood are hammered into them. The notion of interest with very few exceptions in the case of a master here and there who rises above the level is not grasped by the teachers. The discipline though not generally violent is hard; little infants who should be playing and learning as they play are when not being forced to remember made to sit idle and quiet in rows against the wall.

Kindergarten instead of being the fundamental principle of their teaching is treated as a formal uninteresting matter of paper-plaiting and stick laying. There are exceptions to this rule: in three schools that I have seen, the Edward Primary school, Rajahmundry, the Kasimkota Upper Primary school and the Mosalagantivari Primary school in Vizagapatam, a genuine attempt is made by the managers and headmasters to apply the principle.

In school after school one finds a slavish adherence to the letter of the Educational Rules. For the first standard in vernaculars, for instance, reading and recitation are prescribed: consequently the meaning of what is taught is not considered a requisite in the teaching of the children. Even in higher standards the meaning of the verses recited is not understood. This is, however, partly due to the difficulty and abstract nature of the stanzas in the readers in use. Reading is taught from the beginning in the syllabic plan: words as a whole are not grasped. Practice in dictation is given on much the same principle; words are chosen—not because the children can understand them, but because they conform to a scheme of syllabic rhyming. The children in the infant stan-

dards are kept for hours at the dull process of writing and rewriting the elaborate Telugu alphabet. In few schools are they told stories and talked to and encouraged to talk. The method of holding their slates is hygienically about as bad as it can be: they are made to stand and hold their slates almost perpendicularly at the distance of four or five inches from their eyes. It can be imagined that their writing does not usually conform to good models. In all these points efforts are being made by the inspecting staff to bring about small but wholesome reform slowly. In the past year the use of tamarind seeds in teaching notation in addition to the use of the ball-frame has been widely introduced and in teaching the simple rules by concrete methods designed to develop reasoning power some advance has been made. Still there are many ways of introducing variety and pleasure into the teaching that yet remain to be attempted.

If memory, and not intelligence, be the mark of the teaching obligatory subjects, it may be imagined that the optional subjects will usually fare worse. Object lessons are not taught with objects: a teacher will use a too popular card with such pictures as a cow (English), a dog (Newfoundland) a plantain tree and a cocoanut tree and will ask the children a very limited number of set questions upon the pictures, when outside, visible from the place where the children are, all these "objects" exist. Gold is another popular "object" but very few village schoolmasters have any gold to show. Hygiene is taught from a text book in schools whose very surroundings would make admirable lessons in what is unhygienic. The practical hygiene of making children wash at school both themselves and their clothes has been suggested and attempts are being made to provide water for the purpose in one or two schools. Agriculture again is a mere name; school-gardens there are, but the plants in it are usually not for the children to pluck and observe for themselves; but to be looked at admiringly—often the plants are such as they will never come across outside in their own surroundings (e.g., crotons). The teaching even with school-gardens is confined to matters of form and size and colour as a rule. The Sub-Assistant of Párvatipuram reports that in his range the children sow and plant and observe the processes for themselves. Geography is a mere matter of naming—not too accurately—the places marked on the map. Scale drawing is attempted here and there but practical work and observation goes there. Estimation of heights and comparisons of heights when there are hills in the neighbourhood is not attempted. In one school in Vizagapatam the master was of opinion that the Himalayas (which he was teaching) were perhaps 8,000 feet; his boys could not tell the height of the room nor the surrounding hills. In these districts the country affords admirable object lessons in Geography; but the boys are seldom taken out to observe; nor are simple experiments shown them, nor are they taught to make elementary comparative diagrams. The reasons of things, however simple, are neglected. English again in such schools as it is taught is unpractical in all respects and exceedingly dull. The teacher often knows little more than those he teaches and devotes his time to verbal translation; to make the children talk and to teach them through actions and objects, which is thoroughly possible is not attempted. (these remarks apply also to the teaching of the subject in the primary classes of lower secondary and high schools). Drawing is a matter of straight lines and geometrical designs.

Drawing in the mass from simple objects, memory drawing, a gradual training in the use of the curves and circles, though the latter would help the writing of Telugu which is based upon the circle, are not attempted. On these lines I am making suggestions for improvement. My assistants have done much during the past year and I am convinced, will do much more.

Apart from the instructions given by the inspecting staff in their rounds, associations of Primary teachers are being encouraged, reports speak variously of their working: the associations in the larger centres are doing good work, but those in the districts are, perhaps mainly from the difficulties of distance, at present rather apathetic in their working. The main difficulty in getting these teachers to acquire new ideas is that they do not read. There are apparently no good books in Telugu that will help them in their work, at least as suggesting better methods of instruction. Books on method there are none; consequently they get no further, if they have been trained, than the point they reached in the training school. The Telugu educational paper that once was in existence is now defunct. The difficulty of keeping such a paper alive is the lack of financial support. The pay of the teachers is generally too low for them to afford to purchase it; yet, if managers, at any rate, other than schoolmasters-managers could be induced to support such a paper there is no doubt of its usefulness. The sessional schools which provide teachers with the opportunity of further study or getting the necessary general educational qualifications to admit them to the training schools are, as at present worked, I submit, valueless. They are ill-supplied with apparatus; and what they have is poor. At Anakapalle a map of Europe had been in use for a long time, in which without the teachers' perceiving it, England and Ireland were one. The method of teaching the sessional students is, I gather from reports, and my own observations, behind that of the better schools for children. The work done ought, it seems to me, to combine the purpose of instruction in school subjects and the purpose of good methods; at any rate indirectly.

Physical education.—During the year a scheme was drafted for holding competitions in gymnastics and athletic sports between the High schools in each district in connection with the Grigg Memorial medals. The scheme which was drawn up by my predecessor will, I anticipate, work well. Generally there is insufficient accommodation in the schools for good physical education; for drill in particular more space is needed. Attempts are being made to encourage physical exercises in the Primary schools, when possible; teachers are being induced to encourage native gymnastics and native games. In the Narasapur range competitions were held, the prizes being provided by the Taluk Boards of Rajahmundry and Narasapur. Drill has been encouraged and in the same range, drill classes have been started with the view of effecting uniform teaching in drill. More persistent effort is uniformly needed to encourage physical education.

Mr. Mosely's Recent Visit in the United States.

Having lately returned from the United States and Canada, where I had been on a visit to prepare for the arrival of the British teachers who are now investigating the public school systems there, I think a letter from myself may be of interest to those who follow what is being done in this direction and the progress of these countries.

First, it is only courteous and right to again express, on my own behalf and that of the teachers who are receiving its benefits, our indebtedness to Mr. Bruce Ismay, of Liverpool, through whose patriotism and generosity practically free passages were granted to the teachers. Through his influence all the other steamship companies running to the United States of America desired to join in the scheme, whilst the Canadian Pacific Company and the Allan Line informed me that they were prepared to do all that was done by the other companies in order that our teachers might get a glimpse of that valuable part of our Empire—the Dominion of Canada. Only a nominal fee of £5 is asked for the return passage to cover the cost of food (which the steamship companies rightly thought they could not make a charge upon their shareholders) so that, whilst an enormous benefit is being conferred upon the teachers and the nation at large, no one is the poorer.

President Butler, the head of Columbia University, originally interested Mr. Bruce Ismay in this scheme, and I believe is now craving similar advantages during the slack season of American travel for American teachers who desire to exchange views of this side of the water. Dr. Butler, however, did not allow his good offices to rest here, but generously undertook, together with Dr. Maxwell, the superintendent of the Education Department in New York, to arrange the entire details for the reception of the British teachers.

The New York Board of Education heartily welcomed this scheme, which would bring the teachers of the two countries in close touch, and their interest did not end with empty words, inasmuch as Dr. Maxwell received a mandate from his Board to render me every assistance in his power; an office at the Board of Education was placed at my disposal, together with a shorthand typist, the use of the staff of the Board, and they even went so far as to insist upon franking the whole of my correspondence. Such broad-minded courtesy and generosity is deserving of the warmest thanks. Dr. Maxwell enlisted the assistance of Mr. J. H. Pitts and Mr. Gustav Saraubenmuller, other officials of the Board. These gentlemen again formed a sub-committee to assist them in their labours, and the reception of our teachers in New York is in the hands of this committee, who have done their work so thoroughly that a principal of a school meets the steamers on arrival to welcome the visitors, see to the clearing of their baggage at the docks, and conduct them to their quarters, and then at the earliest opportunity, introduce them to Dr. Maxwell, Mr. Pitts, and other officials of the Board of Education.

At the Board's offices printed syllabuses as to what should be seen are drawn out, with instructions for viewing every class of education that the teachers are interested in investigating. Guides are provided for the teachers. If

necessary, a guide-book with plan of the city is supplied, and every information placed at their disposal.

The travellers (again through the generosity of President Butler) are made the guests of Columbia University, where they are accommodated in the dormitories of the University free of charge, and by this means are enabled to see the inside workings of one of the great Universities of the United States.

For those teachers who wish to be brought into contact with their fellow-teachers in the same class of work, arrangements are made whereby the principals of the schools of New York receive such as their guests, charging—in order that the teachers may not feel themselves placed under too great an obligation—the nominal sum of one dollar a day; and this system has been carried out throughout all the great cities and educational centres in the United States—some 50 in number. In each of these cities the committees meet the teachers at the railway station, and conduct them to their temporary residence; and the good people from one end of the country to the other vie with each other in showing kindness and courtesy to these strangers from the old country who desire to investigate their educational system. Teachers are readily made honorary members of clubs (in some of which rooms are especially fitted up to provide them with sleeping accommodation), homes are thrown open to them, and kindness is showered upon them in such a way as to be an object lesson to those who partake of it.

In Canada exactly the same is being done; in the eastern part of the country, Dr. Paterson, Principal of McGill University, Dean Bovey and Mr. Silver, of the High School, Montreal, together with a large committee, are doing exactly the same as our friends in the United States; whilst at Toronto, Superintendent Hughes, together with a committee is caring for those in his district and further west, and upon all sides one hears expression of the greatest admiration for Mr. Hughes's indefatigable services and attentions. But Canada (to use an Americanism) has "gone one better" even than the States and, through the generosity of Sir Thomas Shaughnessy, of the Canadian Pacific Railway Company, and the management and the Grand Trunk Railway, facilities have been arranged whereby our teachers travel in Canada at half the ordinary fares; and this rule applies to every railway running in the Dominion of Canada including the Government lines.

The interchange of views between two great English-speaking peoples must be of enormous benefit to those who are trying to work out practical lines for the education of future generations; but as all the teachers are themselves preparing reports for their authorities and many are writing articles for the newspapers, I will say little more than that I believe they have been enormously impressed with the great belief in the value of education shown by Americans, first, as a means of enabling every child to earn an honest livelihood; and, this done, to pass on to the second important object (which cannot be accomplished without the means of the first)—viz., of raising the ethical standard of the pupil and teaching him his duty as a citizen. This belief in education finds a ready echo amongst all classes of society, who are prepared to pour out their money to further these ends, both through taxation and by princely gifts to education in

every direction; and the material advantage of the American system of education is manifesting itself by the great prosperity of the country and by the ceaseless flow of inquiries at the doors of every University and higher academy of education for the services of the students as they graduate. In fact there are many applications for every pupil available, and the stream is ever a growing one. But, whilst the Universities are prescribing a highly technical course for their students, they are wisely realizing that theoretical education is useless without the practical, and students therefore often break their course and take a year or two in the workshops before finishing; taking care at some time during their course of education to be thoroughly versed in the practical side of the vocation that they intend to adopt.

One of the most noticeable features in the United States is the desire of the pupil, ably backed by the parent, to take full advantage of the magnificent system afforded by the country of practically free education from the Kindergarten to the University. A moment's consideration must bring home to one that a nation must be growing stronger and richer to the full utilization of all the gifts of nature which she bestows upon her children irrespective of position. Those responsible for the Government of the United States are realising how great an asset this is to the nation, how it is making them and will build up and support them in the future, and feel that they cannot afford to lose the services of a single bright citizen, whether he have been born rich or poor. Compare this with our system of higher education only for the children of the rich, or (through scholarship) for occasional prodigies who often fail to realize the promise of their early intelligence, and it does not require a very wise man to see that the nation which is utilizing all its best material irrespective of class or position must win in the long run.

Whilst in New York I attended a public meeting at the Cooper Union, called for the purpose of discussing trade schools, and a great demonstration of public opinion on this point it was. Some 3,000 mostly of the working classes, attended to listen to the address and to words of advice from prominent educationists and business men.

The truth is, all sections of the community in America are becoming alive to the altered conditions of life and industry, with its high specialization. This new phase destroys the individuality of the workmen that was fostered for generations through the apprenticeship system, which latter is fast becoming a thing of the past in consequence of this sub-division and specialization. If the methods at present in vogue be continued, it must tend to weaken the industrial efficiency of the nation, but American workmen and thinkers are in good time determined to grapple with this problem by the establishment of trade schools to fill the place of the old apprenticeship system, and to train the rising generation in handicraft and the general principles underlying fitness for mechanical and industrial processes.

Before the United States are many years older we shall see such trade schools multiplying all over the country, backed by the united voice of the masses, who are determined that their children shall lose no opportunity of becoming helpful members of the community; and in their efforts the masses

are being ably assisted by their trade unions, which are alive to the danger of the present system.

One of the best speeches of the evening was delivered by Mr. S. B. Donelly Secretary of the Typographical Union. His remarks were received with loud applause from both platform and the body of the hall, showing the unanimity of opinion of the determination of the people not to lag behind.

Again, I believe our travellers have been impressed with the close touch between pupil and teacher and the way in which the parents are invited, and even urged, to attend evening conferences in the schools, so that they may know some thing of the teacher who has charge of their children, whilst the parents themselves are able to speak of their hopes and fears as to the future of their offspring, of the direction in which they wish their child educated, and can take counsel with the teacher as to what are the children's strong points, and for what calling in life they should be most suitable. This can only lead to efficiency, and we need, in this country also, greater sympathy in co-operation between the teacher and pupil and the parents.

I think also that the system adopted in the United States, of trying to stimulate the child's imagination and individuality, together with the invaluable rule of compelling them to express their thoughts before the whole class and give the why and wherefore for arriving at certain conclusions, is excellent.

On the other hand, I do not believe that our teachers consider everything they see on the other side is either good or applicable to this country, nor would it be natural that it should be so; but they have gone across for the purpose of noting the good points, whilst seeing the weaknesses and learning how to wisely avoid them.

The leaders in many other countries are as convinced as I am that much may be learned by a study of the United States system of education, and one finds a large number of visitors continually in the American schools. Amongst others whom I saw was one from India, eager to learn all that they had to teach, and fully alive to the impossibility that India should be left lagging behind educationally; but the most striking man whom I have met in late years was, I think, Mr. Masujiro Honda, of the Higher National School, Tokio, who had been sent by the Japanese Government to study American methods. Should any doubt linger in the mind of any one in England as to the earnestness and intelligence of the Japanese people, a few minutes' conversation with this gentleman would dispel the illusion. Perhaps the most interesting piece of information he gave me was his firm conviction that China is awakening fast, and that she will have to be reckoned with in the near future when she has adopted Western methods; and upon this point he was most emphatic.

A large number of our teachers are travelling from the States to Canada, and although the Dominion cannot as yet boast of the palatial school buildings and equipment of the United States, still Canadians are keenly alive to all that education will do for them and to give our teachers if only a birds-eye view of this promising part of the British Empire must be of enormous educational advantage to themselves and, through them, to the pupils. Whilst on the subject

of Canada, may I be allowed to again emphasize the great opportunity that this magnificent territory offers to our fellow-countrymen who are willing to work either on the soil or in the cities? Skilled labour of every description is wanted, highly paid and liberally treated, whilst children have educational advantages that are unknown in this country.

When will the public wake up to the opportunities that await every class of enterprise in the Dominion? At present others more enterprising, more alert than ourselves, are largely reaping its benefits, and I suppose, as usual, we shall wake up to the possibilities of this great Empire when all the land is gone and we can only get either the scraps that others have left, or what we can then purchase at high prices!

One final word now as to what I observed in the United States from time to time. What must impress any visitor at present is the enormous prosperity of the country, which shows itself in every direction. The cities are full to overflowing, building is going on with feverish activity, the railway companies cannot cope with either the passenger or the freight traffics, and must double track their lines and extend in every direction. The flow of immigration is endless and ever increasing in volume.

The cry is on all sides, "We cannot get raw material enough," "We cannot execute our orders," "Railways cannot carry our goods," "We are short of labour of all descriptions," and so on. Wages have increased enormously, and rents are rising, but I do not think, in spite of what may be said to the contrary, that the cost of living has outstripped the increase of wages or the advantages of regular employment, nor can the working men expect, with great prosperity and ample employment, to reap all these advantages of without having to part with some of their earnings in extra expense; but perhaps the greatest danger and charge noticeable in this connection is the high standard of living, if not ruthless extravagance, of all classes in America. What were luxuries yesterday are considered necessities to-day, and where this is to end it is difficult to foresee; and herein lies hidden trouble for the future. At the present moment everything is keyed up to so high a pitch that a reaction would probably spell disaster, and yet things cannot go on indefinitely on the present lines. I am bound to say, however, that I see no sign of reaction so far; but, if for no other reason, a halt would probably have to be called from the sheer want of money. The developments in the States are so great now and on so huge a scale that she can practically use the spare capital of the world, and yet cry for more, and the enormous demand for money in the United States is causing a serious high rate of interest in Europe, and we here are not in a position, with our close-cut profits, to pay for legitimate trading purposes at the present ruling rates of money. I wish to record that I see signs of serious danger in the future if the ruthless extravagance of the people of the United States is to continue unchecked, and her prosperity is leading to an even worse feature than her extravagance—viz., inefficiency and corruption. In bygone years one was impressed with the thorough way in which everything was done and every detail thought out in the States; but the same is not true to-day. On the contrary, there are signs of everything becoming slipshod, work inefficiently performed and badly finished,

everything overdone and overcrowded; and, above all, everybody appears in too great a hurry, so that in the race for success and wealth many of the former good characteristics of the country are disappearing.

Again, finance in the United States of America is showing signs of unsoundness by the enormous height to which prices of all property and securities are being pushed, and, above all, by the late exposures of dishonesty (and that at points where we should have looked for a high standard of honour), but, whilst this is bad, there is the redeeming feature of a strong public opinion trying to correct these evils and expose the guilty parties (although the late exposures have created so profound an impression amongst the masses that the hasty remedies proposed may be even worse than the existing evil), and the Press and public alike are merciless in their condemnation of the dishonest practice of certain financiers. Would that it were so in our own country! Unfortunately, as bad or worse is going on here in the City of London in connection with bubble companies, and the method in which a certain class of company-mongers conduct their business, backed up by a certain section of unscrupulous directors and their following, lawyers and accountants. When this system of unsavoury finance is fully exposed—as exposed it will be in the long run—the people here will stand aghast at what has been going on unchecked under their very eyes, and at the vast sums which have been lost, bringing ruin to countless thousands, to say nothing of the check it must give to confidence amongst the investing public, and its retarding influence upon genuine enterprise and development.

The nations of the world may be growing richer but unless honesty and realization of the responsibilities of wealth are to accompany this material progress, we are better without it.—*The Times*.

The "Times" on Mr. Mosely's Views.

Mr. Mosely, who has done so much and in a munificent manner for education and for diffusing a knowledge of methods in use abroad, gives, in a letter which we publish, an account of a recent visit to the United States. He went out to make preparations for a large number of teachers from this country visiting America and seeing with their own eyes American educational systems and methods at work. It is a record of enterprise and public spirit honourable to Mr. Mosely. It is also suggestive and instructive to those who cannot have the opportunities given to so many teachers of studying American education on the spot. Possibly the picture painted in somewhat too bright colours. The kindness shown to the visitors from the old country may have unconsciously biased Mr. Mosely's judgment. Certainly we find no distinct mention of defects in American education which have been pointed out by none more frankly than by American critics. There can be no question that the exchange of views between the teachers of the two countries and the larger horizon which they get from seeing other systems must be beneficial to both, and must help to put life in old methods and destroy the worst enemy of true education—the dry lot of routine. Two things seem to have most impressed him—the higher value put by Americans than by us on education and the desire of children as well as

parents to make full use of the system of free education which practically exists from the Kindergarten to the University. As to this last point, Mr. Mosely writes with something like enthusiasm. That the community should be able to avail itself of all the best intellects, in whatever social station they may be; that the capable lad born of poor parents should have his foot on the first round of a ladder by which he may climb to the highest place in the community; that poverty should not be permitted to nip budding merit, is important. It is one of the virtues of the American educational system, with its rich endowments, that this promotion is facilitated. Perhaps Mr. Mosely slightly overrates the novelty of these advantages so deserving of ambitious youth. Long before it was the fashion for millionaires to spend large sums in founding or equipping schools, laboratories, and Universities, men forced their way from the ranks to high places in the State. A society which permitted a Lincoln or a Garfield to become president was not wholly unfavourable to that development which Mr. Mosely prizes. Nor have our Universities, with all their faults, which many now gloat over, wholly failed, even in days of torpor, to encourage "the full utilization of all the gifts of nature which she bestows upon her children irrespective of position." Perhaps, too, the removal of material difficulties from the path of the student has not been all clear gain. There may be a slight set-off. In the struggle with outward circumstances, in the practice of self-denial in order to get books and instruments of learning, his fibre was strengthened. The weak were discouraged. The strong were made stronger, and individuality did not suffer. Some with excellent brains remained handicraftsmen; but at least those meant to use their hands were not tempted to make themselves doctors, lawyers, teachers, men of science.

Mr. Mosely is on safer ground when, in words which should be pondered over here, he points out that all classes in America are becoming alive to the evils incident to the new conditions of industry, with its excessive specializations. "This new phase destroys the individuality of the workmen, that was fostered for generations through the apprenticeship system", rapidly becoming a thing of the past. In the long run this must be mischievous. To prevent the evils flowing from excessive sub-division of functions, an attempt is being made to find in trade schools, where handicrafts are taught, a substitute for the old apprenticeship system. The more experiments we have as to making the trade schools do duty for the workshop with its realities, the better. Here as well as in America, there has been as to this a measure of success, which justifies and encourages further efforts of the kind. But as to this point we have to take care, as was pointed out the other day by Sir William Mather in his remarks at the Mansion house, at this stage, that, in the pursuit of theoretical knowledge, the practical side of industry is not neglected. Mr. Mosely's remarks as to one aspect of American education will be noted with satisfaction, and may suggest imitation here. He is impressed by the prevalence of the desire to raise the ethical standard of the pupil and to teach him his duty as a citizen. Efforts in this direction will be watched with the closest attention.

The letter of our correspondent is emphatic as to the prosperity—"the enormous prosperity"—of the United States; and he writes much the same as to the economical condition of Canada. But there are dark spots in the pic-

ture of the former. He tells of "ruthless extravagance" and of symptoms of "inefficiency and corruption." To this testimony as to signs of abounding prosperity is added the statement that "there are signs of everything becoming slipshod, work inefficiently performed and badly finished, everything overdone and overcrowded, and, above all, everybody in too great a hurry"—evils not to be stayed by trade schools; but to be combated by moral agencies, as to which the United States have as much to learn as to teach. We trust that English teachers, while studying the equipment and methods of instruction in American schools, will not fail to reflect upon this part, not the least important, of Mr. Mosely's report.—*The Times*.

Occasional Notes.

INDIAN.

The following gentlemen of the Indian Educational Service have been granted leave:—Mr. A. A. Hall, six months' furlough in continuation of the summer vacation of the Teachers' College; Mr. E. W. Middlemast, privilege leave for two months from 2nd April, 1907; Mr. P. F. Fyson, furlough for four months and thirteen days from 24th December, 1906; Mr. R. Ll. Jones, furlough for fourteen months in continuation of the ensuing summer vacation of the Presidency College.

We offer our hearty congratulations to Mr. C. A. Paterson on his re-appointment as Registrar of the University of Madras. There was some opposition to his appointment, and notice had been given of a resolution to invite applications for the post. But the Syndicate's appointment was confirmed by a large majority. It is open to doubt whether it is a sound principle that fresh applications should not be invited on the occurrence of a vacancy as some members of the Senate seemed to think.

The members of the Madras Victoria Hostel, Chepak Gardens, are agitating for reform in the system of management and complain of high rates, due, as they allege, to extravagance and mismanagement. Recently they wished to hold a public meeting to voice their grievances and to take them to the notice of the proper authorities, but they have been forbidden to hold a meeting. At Cambridge the undergraduates are reported to have recently behaved like lawless rowdies and thwarted the organisers of a certain meeting in their attempts to do some business. The most remarkable part of the whole thing is that no notice, judging at any rate from the accounts to hand, seems to have been taken of the conduct of the undergraduates.

The Honourable Mr. Gokhale addressing some time since the students of the Punjab University declared that there is undoubtedly a place in politics for young men at the Indian Universities; that their vigour and enthusiasm were as essential in public life as the mature judgment of their elders; and that it was

not merely permissible but obligatory for students to take a part in the political activities of their country. But he warns them against interference with practical questions of current politics. This is very wholesome advice coming from a man of very wide influence.

A VERNACULAR SCHOOL MUSEUM FOR BANGALORE.

By the liberal grant of funds from the Government of India to meet the cost of English education in Bangalore a sum of Rs. 2,000 per annum from municipal funds has been set free. It is proposed by some to utilise this amount in the formation of a school museum. That is, an educational art gallery and library shall be established for the benefit of the Primary school teachers. As there is some opposition to this scheme, an alternative scheme has been proposed whereby more teachers are to be trained, and increased help may be given to thoroughly efficient Primary schools. No serious objection need, we think, be taken to the latter proposal.

FREE PRIMARY EDUCATION.

"We devoutly wish and pray that something may come out of the present enquiry into the desirability of providing free Primary education, which, the Government of India have, it is understood, already set on foot and regarding which the Local Governments have invited the opinions of representative bodies and leading men. We venture to think that there can be no two opinions as to the desirability of a system of free Primary education. It will indeed be the greatest boon and blessing to that real Indian nation which dwells in cottages. Need we say that the whole country will watch the result of this enquiry with the greatest interest?" *The Bengalee*.

THE BEGUM ON EDUCATION.

If the Jagirdars of Bhopal do not quickly respond to the appeal of H. H. the Begum on behalf of education, they must be a peculiarly impervious lot. An appeal of that kind, so well meant and so easy to act up to ought to be effective, if it emanates even from an ordinary citizen. Coming from a ruler, and of sex generally steeped in ignorance in this ancient land, it must sink deep into every heart and must bear early and abundant fruit. Curiously enough, while in many parts of India the Mahomedans have recently been echoing with one voice the call to Education, the Jagirdars in Bhopal, according to Her Highness, have been very slow to take advantage of the blessing given to the people for the first time, it seems, by her grandmother. The English school, where she distributed the prizes in person the other day, has been affiliated to the Allahabad University. The highest class, however, does not reach even the Matriculation standard. If the pupils in that class make steady progress, it will be another two years before they pass the Matriculation examination. Such being the state of education in Bhopal, it is no wonder that the

administration is carried on with the help of officers imported from outside. Her Highness sends her own son to the new English school as an example to the nobility of the State. Some Jagirdars have already been sending their sons to the school, but they seem to form honourable exceptions, rather than the rule. What is said to be still more deplorable is that the noblemen do not exhibit any particular fondness even for sports and physical education. Men who have inherited a contempt for the pen sometimes boast that they can wield the sword with skill and daring. The sword is not needed now in Bhopal. The service of the State requires a respectable endowment of brains, trained to the arts of peace. If the world outside hears so much of Bhopal nowadays, it is more because of the Begum, who has thrown her whole heart into the government of her people, and whose loyalty to the Paramount Power has ripened into a divine passion, than because of the progress made by her people."—*The Indian Spectator*.

* *

* *

* *

The Report of the Committee appointed by the Senate last November to consider in what ways the special grant for University education made by the Government of India might best be utilised was laid before the Senate for information. The proposals of the Report are (1) that from the Government Grant a sum of Rs. 1,00,000 be added to the Griffith's Bequest of Rs. 28,000 to found a University Library; (2) that the interest on another sum of Rs. 1,00,000 from the Government Grant be added to the annual grant of Rs. 6,000 made by the Syndicate for the upkeep of the Library; (3) that Rs. 80,000 of the Government Grant be allotted towards improving the Second Grade Colleges; and (4) that Rs. 60,000 of the Government Grant be added to the funds of the University and the interest therefrom, together with such sums as may be spared from the yearly income of the University, be devoted to University Lectureships and Research Scholarships. The Syndicate, in reply to a Government Order, has sent a letter to Government adopting as its own these recommendations but submitting "as an alternative proposal that in lieu of sending Rs. 1 lakh on the upkeep of the Library, this sum may be devoted to making grants to First and Second-Grade Colleges in addition to the sum of Rs. 80,000 reserved by Government for First-Grade Colleges, and the sum of Rs. 80,000 proposed by the Committee to be devoted to Second-Grade Colleges—the grants to be made conditional upon the Colleges that receive them satisfying the Syndicate that with the assistance rendered they will be able to provide in a thoroughly efficient manner for the courses of instruction which they undertake." The objects on which the Committee proposes to spend the special grant are in themselves excellent, but it cannot be said that the sum which the alternative scheme suggests should be devoted to the Colleges is at all excessive when regard is had to the expenditure which these Colleges must incur in connection with the improvements they must make in order to bring themselves up to the standard required by the new regulations. The Vice-Chancellor intimated that a Special Meeting of the Senate would be called to consider the Report of the Committee.

* *

* *

* *

This is the season of prize distributions, University convocations and other functions. During the past few weeks eminent men like Sir Arthur Lawley, Governor of Madras, Sir Charles Rivaz, Lieutenant Governor of the Punjab, Sir John Hewett, Lieutenant Governor of the United Provinces, Mr. R. C. C. Carr, Resident of Travancore and Cochin and others have delivered presidential addresses on these occasions. We give below summaries of a few of them.

SIR ARTHUR LAWLEY AT THE MADRAS CIVIL ORPHAN ASYLUMS.

"This day marks a turning point in the history of this institution, as it is about to complete its hundredth year. Year after year, the children who have been brought into this institution—who would otherwise have experienced the misery of destitution and want, whose lives would have been sordid and mean—have been saved from that and more; they have been made capable and efficient boys and girls able to take their part in the battle of life. They have learnt the true secret of success in life, which can only come with the knowledge of religion which they are taught here. I congratulate the institution on having turned its hundredth year. I congratulate those who are associated with it in the terms of the Report which we have heard read this afternoon; and when I think of how that has been achieved, I feel that, on behalf of the Government, I should take this opportunity of saying how highly we appreciate what has been done, in the first place, by those who are responsible for the direction of this institution. Boys and girls, there are men and women living in this town, giving up their time and money, their energy and their love, for you, to help you in your life. Surely that is something to be thankful for.

In particular, I should like to say how wise, I think, has been the policy adopted here. You, my young friends over there, you have got to go out into the world very soon; you have got to take your part in life. It is not easy, it is not simple. Here you are being made capable of taking that part successfully. In the hymn which you have sung this afternoon, the words allude to the work which lies before you, that it may be hard and dry. Yes, work lies before all of you; and there will be times when you find it dry and weary. It is an experience that, I think, we all have had, that we all are having, and that we all must look forward to in the end. I am a believer in work; I believe *the man who works hardest is always the happiest*. I believe in the Latin proverb *Laborare est orare* to work is to pray. So, I say boys, *learn here to work, learn how to work*. I do not believe it matters so much *what you learn* as *how you learn it*, what your methods are, if they are methods of patient investigation, careful thought, diligence, and, above all, thoroughness. Here you are being taught not to go out as weaklings, but with your sinews and muscles strongly developed. Yes, the day may come, when you, my young friends, will have to depend upon the very strength of your arm and the stoutness of your heart to battle with life. So, I say to you, train your muscles, because it is not a thing that you can pick up in a day, a week, or a month; to be strong, whether morally or physically, means long training and steady devotion to that training. Give up self-indulgence and stick to your work; whether it be physical or whether it be mental, stick to your game. Over and over again I say to boys whom I address, *be earnest; be earnest in your*

play, be earnest in your work. That is the word which I ask you to take from me this afternoon; be thorough and be earnest. I was pleased as I came through the room—for this is one small thing I should like to mention—to see the cleanliness and the smartness of the table there set out, and I believe that that result has been brought about by an old soldier, for which I compliment him. He has my sympathy in that respect, because I believe that without cleanliness, without smartness there is no self-respect. So, my boys, I say to you this afternoon, be clean, be thorough, and be earnest. Now I will end by congratulating, if I may, those boys and girls to whom it has been my pleasure to present prizes this afternoon; and though it may seem somewhat egotistical, I should like, if I may, to congratulate in particular the boy and girl who received the good conduct prizes; not because the prizes came from me, but because here, in this institution, the general conduct of the pupils has been so exceptionally good that for one to carry off a good conduct prize shows exceptional merit. I will only say, keep up the character of this institution, and when you leave its walls, I hope that the lessons which you have been taught here will be of avail and of help to you, one and all."

* * * * *

H. E. Sir Arthur Lawley again played the role of Chairman at a Prize Distribution function,—on this occasion, at Bishop Corrie's High School. He congratulated the school authorities on the good work that was being done and urged the students to follow in the footsteps of their predecessors many of whom had risen to eminence and to keep up the fair fame and the honourable traditions of the school. "You boys and girls," said His Excellency, "I want you to realise that a great responsibility thereby rests upon you. In school more than anywhere else a little leaven leavens the whole lump, and an influence for good has greater influence perhaps in school than elsewhere and equally an influence for evil. As I said just now you have committed to your care great and noble traditions. Be true to the trust which has been committed to you. Strive each and every one of you to add fresh lustre to the name of your school and to maintain nobly its good traditions, and even if you add a little only, repay to a small degree the debt of gratitude to the school to which, believe me, you owe much." The Lord Bishop of Madras in proposing a vote of thanks to His Excellency sounded a vote of warning that all was not well, and that the education of Europeans and Eurasians left much to be desired. He drew a comparison between "barbarous" (?) Nandyal where 7 pupils passed the Matriculation examination out of 13 sent up and Bishop Corrie's at which out of 11 that appeared only two passed. One noteworthy feature of the proceedings was an exhortation by the Bishop to the students to make the most of their stay at school, an advice which may seem superfluous after His Excellency's address.

SIR CHARLES RIVAZ AT THE LAHORE GOVERNMENT COLLEGE.

"It is most desirable that this College should lead the way in every form of advance intellectual, moral and social. The post graduate course and facilities for original research provided by this College are likely to exercise direct influence on the industrial and commercial conditions of the Province. I am

glad to learn that the inter-Collegiate lectures in English and Mathematics have been kept up, for there can be no doubt as to the good results of co-operation amongst Colleges not only on the play-ground but also in the class rooms. Mr. Robson has alluded to a growth of *esprit de corps*, and it is certainly a good thing that this spirit should exist between the College and the College students, forming a brotherhood rather than a set of rival parties. In this connection I notice with pleasure the success of the Graduates' Union which helps to keep old students in touch with their old school. I am glad to learn that so many of the old students of this College are doing excellent work. I am glad also to acknowledge the progress made within the last few years as stated in the Report we have just heard. There is now a largely increased Staff; better play grounds; larger boarding houses; a finer library, and improved equipment generally; and further improvements are in hand. When the swimming bath, and the Biological Laboratory are enlarged; and the Chemical Laboratory, the new Physical Laboratory, and increased accommodation are provided—this College may justly be regarded as one of the best in India. I am sorry that this is the last prize giving function that I shall attend here, and I cordially wish the Lahore Government College a long future career of prosperity and success."

SIR JOHN HEWETT AT THE LA MARTINIÈRE COLLEGE, LUCKNOW.

"I am glad to think that I was able to give some assistance in furthering the interests of your institution. I have always been anxious to help you, and I will do all that lies in my power to assist you. You note that you have a large number of Martiniere boys at the Roorkee College. The education given there equips them for a practical career in their after life, and some of your students who have passed to the college have had very distinguished careers. We are in hopes, by the extension of the curriculum there, to open out other avenues of employment than those which are at present available. Your success at the Government School Final Examination is very encouraging. I regard it as of great importance that schools, such as this should make success at this examination their main object. I am glad to hear that the Martiniere Girls' School was also in its own sphere as successful as the Boys' School. What you tell me about the importance that is attached to physical training, to games and to Volunteering, shows that you pay proper attention to the development of manliness of character among your students. Colonel Pope was an enthusiastic Volunteer, and gave great encouragement to your Corps. I knew him well enough to understand what a loss his departure from Lucknow must have been to you, not only in this matter, but also in others. I hope that his successor will give the same encouragement to you in volunteering as he did. I am glad to hear your favourable opinion of the teaching staff. My friend Sir Herbert Risley on the occasion of a somewhat recent prize-giving, compared the Martiniere to the old school at Winchester, at which both he and I had the honour to be educated. As you know, the motto of Winchester is "Manners maketh Man", and I can well remember a very instructive lecture that the late Lord Selborne gave to us boys on this text, emphasizing the principle that *mores* not *honores* are what the average schoolboy should aim at.

We cannot all get prizes. I regret to say that I passed a number of years at Winchester without getting one, but we can all strive towards the three attributes on which Sir James LaTuche, quoting from Tennyson, laid so much stress at your annual prize-giving five years ago. I mean self-reverence, self-knowledge, self-control. Nothing tends so much to develop these characteristics as the *esprit de corps* that exists in a good school, and I feel sure that it exists largely in the famous foundation in which we are now present, and helps you, Mr. Sykes and your fellow tutors, more than anything else to keep up the high moral tone for which the Martiniere has earned its well deserved reputation, and to turn out sturdy specimens of the domiciled European and Eurasian community, fit to take their part with anyone in the battle of life. The best that I can wish for the Martiniere is that it shall maintain in the future the high reputation that it has in the present in this respect."

His Honour Sir John Hewett, in reply to an address presented to him on the occasion of laying the foundation stones of a Hindu Boarding House and of the Nanak Chand Anglo-Sanskrit School at Meerut, spoke as follows:—

"I am glad to learn of the generous manner in which the College has recently been helped by many donors, and am particularly gratified to hear that a Mahomedan Boarding House is to be erected in memory of my old friend, the late Hafiz Sheikh Abdul Karim, Khan Bahadur, C.I.E. There is no better object on which those interested in higher education can spend money than in the erection of boarding houses such as that of which you have invited me to lay the foundation-stone to-day. It is satisfactory that you have been able to improve the library and laboratory and to put up a gas installation.

The Nanak Chand Anglo-Sanskrit School owes its existence to the generosity of a deceased citizen of your town whose name it will worthily perpetuate. I am glad to see that though the ceremony of laying the foundation-stone takes place to-day the walls of the building are now high above the ground. I can promise countenance and support both to the College and the School. But I am bound to say that the arrangements now existing for higher education at Meerut seem to be capable of some improvement. As a member of the University Commission I joined in the condemnation of the plan—which for financial reasons now prevails at your College—of having school classes in a College affiliated to the University. In my judgment the Government ought to undertake more direct responsibility than it does in providing for Secondary education here, and the College should confine itself to the education of students going through a University career. The question of how this should be done will now be taken up. The loss that the College would suffer from the removal of the School classes now attached to it could, it seems to me, be fully compensated by an increased contribution from the Municipal and District Boards of the District, and by help from the other District Boards of the Division. It should be a point of honour with the wealthy residents of this District to assist the Government and local bodies to improve the state and financial position of the College. I specially commend to them the good work of giving help towards the cost of the new building, such as are required for the laboratory, with the object of raising the practical side of the teaching given at it to a high standard, and thus affording

full opportunity to young men of this part of the country to fit themselves for employment in the various fields of work that are sure to open out as the industrial development of the country proceeds".

SIR ANDREW FRASER ON DISCIPLINE IN SCHOOLS.

Sir Andrew Fraser, Lieutenant-Governor of Bengal, presiding at the Patna Collegiate School, made the following remarks in the course of his speech on the absolute need for discipline in the training of youths:—

"I am glad to see also that in this brief Report a considerable portion of space is given to the important matter of discipline. With all that the Headmaster says on the subject I entirely agree. It is not an easy matter to enforce discipline wisely; it is most injurious to the boys when discipline is in any sense slack; and it is sad and uncomfortable when it is wanting in fact. I cannot help relating to you in this connection a fable from the American *Aesop*, which enforces an excellent educational moral. The fable is as follows:—An elephant was walking over the prairie, when she placed her foot upon a partridge and crushed the unfortunate bird to death. This untoward accident occurred very near the nest where the bird was rearing her callow brood. A great wave of pity swept over the breast of the mighty mammoth; and as a tear of sympathy ran down her pachydermatous cheek she said, "Never mind, my dears, I have been a mother myself, and will take care of you," and she sat down upon them. This proves that it is not every one, however kindly intentioned, who is fit to be placed in charge of an orphan asylum. It is equally true that it is not every one, however well intentioned he may be, that is fit for the office of schoolmaster.

The schoolmaster has to be to the boys in the place of a father. Most fathers are unable fully or even in part to perform their duty to their children in regard to their education and training; because they are occupied elsewhere than by their children's side, in securing for them the means of livelihood, in respect of the acquisition of which there is so much difficulty in our complicated civilisation. The schoolmasters, therefore, take their place, and the true schoolmaster is the man who can occupy, morally as well as legally, the place of the parent. To enable him to do that, he has to be a man in respect of his experience and qualifications, and, to a large extent, a boy in respect of his tastes and manner. He is above his pupils in respect of his position and his learning; but he must get alongside of them in respect of his sympathy and a certain youthful playfulness which the companion of boys requires. He must not forget the responsibilities of his position as a man; but neither must he forget that he was once a boy himself, and that one of the most important duties of a man is to remain young. To the schoolmaster the old saying which I have already quoted "Whatsoever thy hand findeth to do, do it with thy might" is especially applicable. When he is teaching, he has to do it with all his might to get at the boys somehow or other, and to hold them to their lessons as well as he can. When he is supervising their play, he has to do that with his might also; not only to see that they attend during the play hour but that they take full advantage of their games; and for this purpose he must himself both have and mani-

fest intense interest in the games, and even sometimes take an enthusiastic part in them."

From the boy's point of view discipline is often very uncomfortable. The necessity for punctuality, regularity, preparation, attention and obedience is sometimes not easily recognised and accepted by the boy's mind. But it is a necessity; and there is perhaps no more terrible offence against the rising generation than to relax discipline, or to do anything that interferes with the proper exercise of discipline. We have had fathers who have chastened us and the chastening was sometimes very far from pleasant; and we have had schoolmasters who have chastened us on our father's behalf and the experience has sometimes been grievous, but when boys grow up to manhood they will recognise that the wise father or schoolmaster did not chasten for his own pleasure and that the advantage of that unpleasant and sometimes grievous chastisement and of the discipline which it enforced remains as a most valuable possession. For the sound exercise of discipline, however, it must be borne in mind that *tact* and *Sympathy* are absolutely essential; and this part of his duty will cause the earnest schoolmaster the greatest anxiety and the most devoted effort to do the right. He must not crush out life like the motherly elephant; but he must educate and develop it. Schoolmasters have not always by any means an easy or pleasant task, but there is no office more honourable than theirs; and, if a good master does not get always all the love and reverence from the boys which he deserves, his reward lies in the future, in the later gratitude and esteem of what is now the rising generation. From what I have heard and from what Mr. Russel has just said I judge that the discipline of this school is well above the average. But I know that those who understand best the value of discipline are most inclined to give the thought to the subject and most ready to hear about it.

MR. R. C. C. CARR AT THE CASTE GIRLS' SCHOOL, ERNAKULAM.

"Miss Cruickshank and her assistants have learned the secret of enforcing discipline amongst the pupils by increasing their love and respect for their teachers. The happy faces before us show that "school" is by these girls regarded in its old sense of "rest and recreation," which was the actual meaning of the old Greek word from which the term "school" is derived. Certainly the exercises we have seen afforded recreation to us and to the pupils.

Turning to the Report which Miss Cruickshank has just read to us, the first thing I notice is, that the genus man has been almost eliminated from the teaching staff. Under ideal conditions all girls should be taught by women, and the school has already made a great advance towards this ideal. Man is undoubtedly inferior to woman in many respects, but until recently man has held an almost entire monopoly of the teaching profession. Woman is, however, awaking to the injustice of this position, and I am glad to say that the number of women teachers is steadily increasing. But the teaching profession, like all others, requires training, and a trained man is perhaps better than an untrained woman. I see that out of eight teachers in the school five are untrained. The Durbar has already realised the need for more trained women teachers, and is sending women for training to Calicut and Madras. I would merely suggest a further

advance in the same direction. There are three Sirkar Girls' Schools in the State, and this year two teachers have been sent for training. The demand is greater than the supply, and I think that more teachers may be sent to the Normal Schools.

Another point for congratulation is the increase in strength, and I note with pleasure that this increase is obtained although moderate fees are levied. I am strongly of opinion that, if a thing is worth having, it is worth paying for. The very high percentage of Nair girls is also noticeable. But all parents know that as their children grow they tend to outgrow their clothes, and I understand that this school is outgrowing its habitation. This is a serious matter, and will doubtless receive due consideration. Want of space is a great drawback, and as a result little or no Kindergarten work is attempted. I am convinced that, with the introduction of Kindergarten work, the school would become more popular and more efficient. It might even be possible with more space to introduce a piano, and I am sure that pupils and parents alike would welcome this.

I note further that there is a small library provided by the Sirkar. This is a great boon, for books are friends, and, as Macaulay once said in a letter to a little girl, "You will find them better than all the tarts and cakes, toys and plays and sights in the world. If any one," he added, "would make me the greatest king that ever lived, with palaces and gardens and coaches and beautiful clothes and hundreds of servants on condition that I should not read books, I would not be a king; I would rather be a poor man in a garret with plenty of books than a king who did not love reading." So, I say, books are friends, but like living friends they require careful choosing, and I hope that the choice of books for each pupil's reading is guided by the advice of the school-mistress.

I congratulate all the prize-winners on their success, and to those who have not succeeded this term I say 'persevere.' Somebody once said the secret of success was audacity, but I prefer to think that it is perseverance. To you children I say, remember in all you do, to do it thoroughly, and do not imagine that because you are not called upon to do great things, your work can be scamped. Your daily work is your duty and everyone must try to do his or her duty.

We cannot all be heroes,
And thrill a hemisphere
With some great daring venture,
Some deed that mocks at fear;
But we can fill a life-time
With kindly acts and true,
There's always noble service
For noble souls to do."

MR. R. C. C. CARR AT THE MAR IGNATIUS HIGH SCHOOL, ERNAKULAM.

"This High School, as the Report tells us, was started chiefly for the benefit of the Jacobite Syrian Christians, but like other schools its doors were, and are, open to boys of other religions. During the past year 22 per cent. of the total strength were Brahmins, Nairs and other Hindus. The total strength has, I am

sorry to see, fallen by 26, and I am still more sorry to see that of those 26, 20 were Roman Catholic students, who were withdrawn from the school in accordance with a circular from their Bishop, prohibiting them from studying in any denominational school other than their own. I had not before this heard of the Bishop's circular, and I must confess that I am astonished at it. There are in this State two Roman Catholic High schools, besides other schools of the same persuasion, and so far as I know Christians of all denominations and Hindus have been, and are still being, sent freely to these schools. The withdrawal of Roman Catholics from schools of other denominations would justify the withdrawal from Roman Catholic schools of all students who do not profess the Roman Catholic religion. I am sure that the Bishop would not desire such a consummation. Moreover, the Cochin State is the very last place in which narrow sectarian views should take root. For centuries the rulers of this State have stood before the whole civilized world as noble examples of religious toleration. The history of the Syrian Church, of the Roman Catholic Churches, of the Protestant Missions and of the Jews shows that to one and all the successive Rajahs of Cochin have, in their broad-minded generosity, extended not only protection but princely assistance and encouragement. It is, therefore, astonishing that a move should have been made to exclude all Roman Catholics from the benefits opened to their brothers of other religions, and I do not think I shall be wrong if I characterize the order as unjust both to the schools of other denominations and to the local Catholics, who cannot but be injuriously affected by the barrier thrown in their way. I sincerely hope that the good Bishop will be prepared to reconsider his order, for I am certain that the sad results of his strict exclusiveness could not have been realized when the order was passed. I shall be very glad to discuss the matter with him in a friendly spirit if he will honour me with a visit.

And, now students, I propose to offer you a few words of friendly counsel and advice. Those of us who were privileged to hear the speech of H. E. Sir Arthur Lawley, Governor of Madras, at His Highness' College in Ernakulam, can never forget the telling manner in which he counselled thoroughness, and following in the lines laid down by His Excellency I say to you, boys, be thorough in work and in play. Put your heart into it. Cultivate all your faculties; you must either use them or lose them. We are told of Hezekiah that every work that he began he did with all his heart and prospered. "Resolve", says Franklin, "to perform what you ought and perform without fail what you resolve." Remember too that in school habits are being formed for you that will stand you in good stead in after life; habits of thought, habits of work, habits of play, and habits of intercourse with your fellows. From these habits will spring your character and in the formation of your character you are the principal agent. Some one has said "Sow an act and you reap a habit; sow a habit and you reap a character; sow a character and you reap a destiny." Now we may take this as three crops of the same land. The first crop is sown by your masters, for they regulate your acts and you reap the habits. You are now sowing a second crop of habits and from it will spring your character. Your character is sown in your life and will be reaped for you by One above. This time at school, then, is the most important period of your life. See that you regard it seriously and plant in yourselves that character which is the

seed of a good destiny. Work well, play well, pray well and the reward is certain. The Master will surely say, "Well done, thou good and faithful servant."

Remember also that your education is not finished when you leave school; it has only been begun, and if you have learnt well you will begin to realize how little you know and will long to know more. Be thorough after you leave school and keep bright the knowledge you have acquired. Disuse means rust and decay. Polish the lamp of learning with which your school has provided you and fill and refill it with the oil of your own honest endeavour.

I congratulate the prize winners on their success and to those who have not won prizes I say, do not be discouraged. Genius has been defined as the power of making efforts, and some one else has said the man who never makes mistakes will never make anything, and if you persevere you will succeed."

* *

* *

* *

MRS. J. N. ATKINSON AT THE DOVETON GIRLS' HIGH SCHOOL.

"The school has now started under the new régime so promisingly that, I hope, there will be no more changes, and that the work of the school will go on smoothly. The frequent changes that were made must have caused great difficulties. The results are, however, extraordinarily good. The chief thing in a school is its tone and in this school the tone is excellent. Regarding the school library I may say that good fiction is wholesome reading for the young and the old alike, while works of biography and travel are just as interesting as fiction itself. What children read will help to form their character, and therefore what they read at an impressionable age should be carefully selected. There is such a flood of cheap trashy literature that it is very necessary to select carefully what books children should read, and if they are given good, wholesome books they will turn against trash. Games are very important to girls, but they are not properly understood in this country. English girls think a great deal of games, and it is a known fact that the physique of English girls has very much improved as compared with that of their brothers, and hence, I fear they will become the better men of the two. Games teach the subordination of the individual to the many, as they involve a great deal of self-denial, and a girl will learn lessons which will do her good all through her life. When girls are preparing their lessons, there must be quiet in the house, as a great deal more work can be done when the house is quiet than when their attention is perpetually distracted. Prizes are after all only a hall-mark of success. The best work in this world has no hall-mark at all. Nothing is required of any one but to do her best."

CALCUTTA UNIVERSITY CONVOCATION.

At the Convocation of the Calcutta University held recently, the Hon'ble Mr. Justice Ashutosh Mookerjee, Vice-Chancellor, delivered the Address, from which we make the following extract regarding the scope of the new Regulations:—

The aim of the Regulations throughout has been to simplify the Examinations, to distinguish between the essential and the non-essential, to allow all students a wide choice and free scope as regards the latter, but to demand thoroughness of knowledge from every candidate in the subjects of his choice. At the Matriculation stage, the courses must be so framed, as to include subjects that would train and develop some power of expression, some power of reasoning, and some power of observation. To give the student some power of expression, unquestionably the best medium is his own language in the first place, with the structure and literature of which he ought to have a tolerable familiarity. The Regulations consequently insist upon a knowledge of a student's own vernacular and a power to practise composition as essential at all stages of his career from Matriculation to Graduation. This recognition of the claims of the Indian vernaculars will, I believe, have far-reaching consequences of the healthiest character.

But in addition to a knowledge of the vernacular, a student must, in order that he may have an adequate literary training, cultivate the power to write clear, simple and correct English and to form intelligent comprehension of plain modern English on familiar subjects. He must in addition acquire some knowledge, accurate so far as it goes, of one classical language. If these languages are intelligently taught, if the student is made to appreciate the contrast of the languages in idiom, diction, method and manner, he ought to derive considerable intellectual discipline, and his power of expression ought to be developed on the right lines. To give him some power of reasoning, he must learn the elements of Mathematics, which include a training in Geometry beginning with experimental work and gradually introduce him to the processes of Geometrical reasoning. To ensure that he cultivates his power of observation, it would be desirable to give him the rudiments of experimental physics or mechanics or inorganic Chemistry. This however, has not been found to be practicable, as by far the largest majority of our schools, have no adequate equipment for the teaching of experimental subjects. The student is, therefore, allowed a choice of subjects which includes a general knowledge of the history of his country, and a general knowledge of the geography of the world. It is obvious that a course of training of this description, if it is rightly pursued, and if unintelligent memory work is discarded, is bound to develop the intelligence and to qualify the student for admission to a course of University studies. No exceptional ability is needed in a student to complete such a course at the age of sixteen.

As regards examinations other than Matriculation, thoroughness was demanded as the dominating quality, and the changes introduced were calculated to promote it. Referring to the obligation of a University to encourage original research, the Vice-Chancellor said they were entitled to claim that ample funds should be placed at their disposal.

"You cannot estimate intellectual work by numerical standards alone. It is absolutely wrong to apply statistics to the case of institutions like Universities where the highest form of knowledge has to be cultivated. It is not the number but the quality of students, it is not the *quantum* of knowledge but the character of the training which is received, that determines the position of the University. This is pre-eminently a matter in which it may fittingly be said,

that although it is important to count, it is much better to weigh. It is the paramount duty of the University to discover and develop unusual talent. No University is worthy of its reputation which does not enrol among its Professors men best fitted to advance the bounds of knowledge, which does not relieve them of administrative and tutorial work and thus place them in a position consistent with the most effective discharge of their legitimate duties. No University can rightly be regarded as fulfilling the purpose of its existence, unless it affords to the best of its students, adequate encouragement to carry on research, and unless it enables intellectual power whenever detected, to exercise its highest functions."

DR. TRAVERS ON INDIAN UNIVERSITIES.

A REPLY TO PROFESSOR SELBY.

Dr. Morris W. Travers, Principal of the Indian Institute of Science, writes to the *Times of India*:—Since my arrival in India I have had the opportunity of discussing the University question with many members of the Bombay University, and I cannot but think that in his address of the 19th instant Vice-Chancellor Selby does not give voice to the general opinion of the academic world in this city. Certainly he is at variance with all recognised authority outside India; and though it must be recognised that the methods and ideals of the West are not always directly applicable to the East as the Vice-Chancellor himself allows, the points at issue are such as should involve neither questions of race nor of religion. I have yet but a slight acquaintance with the East, but as I claim to some knowledge of the history and present position of University education in the West, I venture to suggest that an accurate study of the European and American Universities does not lead to conclusions at which the Vice-Chancellor has arrived.

It will be allowed that the study of social, economic, and political problems calls for a knowledge of comparative history, and it is surprising to find that when an attempt is made to reorganise higher education in India no enquiry is made outside the limits of the Indian Empire. Such is the conclusion arrived at on reading the Report of the Indian Universities Commission of 1902; but when one turns to the Report of the Royal Commission on the University of Melbourne one finds that this body, consisting almost entirely of business men, obtained information, either directly or by letter, from the leading authorities throughout the world,—and arrived at a very practical solution of the problem before them.

The function of a University is not easily set down in a few words, but is set forth in the works of some of the deepest thinkers that the world has known. Bacon gave expression to it in the "New Atlantis," in describing an institution of which—"the foundation is the knowledge of the causes and secret motion of things and the enlarging of the bounds of human empire to the effecting of all things possible." Almost simultaneously Gresham College was founded as a practical realisation of this idea; and in the Netherlands William the Silent founded as a memorial of victory in the cause of liberty of thought the relief of Leiden, the University in that city. A century later we find similar expressions in the writings of those who may be considered as the founders of the

Royal Society, among whom some, who though undoubted specialists were members of the Universities of Oxford and Cambridge. Again those like Mirabeau, who attempted to regenerate the French Universities, and Napoleon who founded the University of France, were believers in the specialists, as were those who founded the London University in 1826. Of later authorities we may mention Huxley in England, Liard in France, and Gillman in America, all of whose writings should be accessible; and among laymen none have spoken with greater knowledge or with a more certain voice than Mr. R. B. Haldane.

As to whether the University should, or should not, be productive of the new and necessary knowledge, knowledge which can only be acquired at the hands of specialists, is the point at issue between the Vice-Chancellor and those whose names I have mentioned. It is probable that the Vice-Chancellor's views will find support in the writings of men as illustrious in their own fields of work as some of those I have mentioned, but at the moment I can only remember one such. In his "idea of a University" the late Cardinal Newman lays it down that the function of a University is to teach established knowledge, and that it has no concern with research. Few of the Cardinal's co-religionists agree with him; and any student of his writings will recognise the fact that to him theology was the greatest of all studies and that he held the facts of theology to be established beyond the possibility of further discovery.

The Vice-Chancellor calls upon the University to turn its attention to culture, and one may well ask what he means by the expression. The culture of the Greeks and Romans did not save those nations from destruction, it rather hastened their doom; and recent articles which have appeared in the Indian Press have led to the conclusion that culture may flourish and serve as a gloss for social corruption in a highly civilised modern community. I take it that the truest apostle of culture, the late Mr. Ruskin, who was himself a highly trained, though perhaps a self-trained specialist, would have been the last to advocate the exclusion of the specialist from the University, and to attempt to make the student a specialist—one with a deep knowledge of some subject, and a sufficient knowledge of allied subjects, trained to think accurately, and to work strenuously.

It is the Vice-Chancellor's opinion that the future work of the Bombay University consists merely in "amending its regulations." Were the University to acquire the services of an Anson or of a Clerk Maxwell it would be its regulations prevent him from founding a school, or of raising his students above the level of those of his mediocre Fellows.

I would ask the members of the Bombay University to remember the instructions which one of the greatest statesman of all time left for the education of his son:—"Let my son read often and reflect upon history. It is the only true philosophy." The value of this advice is enhanced by the knowledge that where in founding the University of France he opposed himself to the experience of history his work had to be undone in after years, but not until the restrictions he imposed had worked much harm."

Occasional Notes.

FOREIGN.

Sir Alfred Lyall, the well-known biographer of Warren Hastings has been elected Ford Lecturer in English History at Oxford University. He is an old Etonian.

* * * * *

Mr. Arthur Keith, who gained the Boden Scholarship at Oxford and stood first in open competition in the Home and Indian Civil Services, has been appointed Lecturer in Ancient History at Edinburgh University.

* * * * *

It is with deep regret that we have to record the death of Professor Pelham, the popular Regius Professor of History in the Oxford University.

* * * * *

Lord Curzon has been elected Chancellor of Oxford University in succession to the late Viscount Goschen.

CARNEGIE'S UNIVERSITY.

Andrew Carnegie is to make another large gift to education. He is to have a university of his own. Chicago is to be the seat of the new institution which, it is understood, will bear the name of the donour. The object is to establish and conduct a university for the teaching of medicine, dentistry, pharmacy, science and arts, law, theology and all kindred branches of learning.

* * * * *

UNIVERSITY EDUCATION IN IRELAND.

Mr. Bryce's scheme of University Education seems to have reached the height of unpopularity. An emphatic protest has been made against it by eleven out of the thirteen bishoprics of the Church of Ireland, who are also graduates of the University of Dublin. The perils to liberal University education in Ireland were discussed by men like Dr. Traill, the Provost, Mr. J. H. Campbell, K.C., M.P., Professor Dowden and others. Professor Dowden moved "that the Senate appeals to all graduates of Dublin and other Universities, and to all those, without distinction of party, who value freedom in research, teaching, and publication, to assist in maintaining unimpaired, the constitution and position of Trinity College, Dublin, which, in the unanimous opinion of the Commissioners, as it stands to-day is a noble institution for the maintenance of sound learning, not unworthy of its great traditions and of the affection and veneration with which it is regarded by its children." Mr. Arthur W. Samuels, K.C., proposed: "That we protest against Mr. Bryce's scheme, because it provides and can provide no adequate safeguards against the introduction of sectarian divisions into the administration of the University." The Resolution was adopted unanimously.

* * * * *

The problem of "elective system" has not been satisfactorily solved in America. Election entails much waste of time and energy, if left to the pupils. Teachers should no doubt be given a certain amount of discretion in encouraging pupils to devote greater or less effort to one or the other study. The course of study, after all, is a generalisation of what is considered best for the pupils to have. Its rational application demands proper individualization by the teacher to the peculiar needs of his pupils.

As a general rule, it may be maintained that there should be no electives below the high school, though the choice of extra subjects outside of the regular school course may be permitted. But even in the choice of these extra subjects the sanction of the teacher and the endorsement of the principal of the school should be obtained.

The chief danger of election in the high schools is that the teachers of the schools are by training, experience, and predilection inclined to scholarship, rather than to all-round culture. Being usually specialists, it is natural that they should see in their own individual specialities the great avenues to human welfare, thereby strengthening the pupil in the wisdom of his immature choice, rather than impressing him with the danger of premature specialization.

In the high school no pupil should be excused from any of the studies considered necessary for his proper educational development. If the pupil desires to specialize he should find his chosen speciality to be surrounded with obligatory studies establishing the proper balance. Looseness of election is a crime. It is like letting babes play with matches and guns that are not loaded.

There are fundamentals concerning which there can be no difference of opinion. They should not be left open to the choice of an immature and inexperienced mind. If there may be a choice between two subjects of practically equal educational value, it is still advisable that a trained educator acquainted with the individual needs of his pupils should influence, if not determine, that choice.

* *

* *

* *

SECULAR SOLUTION OF NATIONAL EDUCATION.

FOUNDING OF A NATIONAL ORGANISATION.

A well-attended meeting was held at the *Tribune* Rendezvous, Bouverie Street, on the 4th instant, for the purpose of founding a national organisation to urge the secular solution of national education upon the country and the Government. Letters were read from several Members of Parliament and a number of ministers of religion expressing regret at inability to attend, and sympathy with the objects of the meeting. Dr. Clifford wrote:—

I have stood for secular education since 1870, but for secular education with my own interpretation of the word "secular," and that has meant giving the child the advantage of becoming acquainted with the ethics and history and literature of suitably selected portion of the Bible, as from other books. Hence, I am deeply interested in your movement, but I must frankly say that I could not join a society that stood for the express exclusion of what seems to me the

best literature in the world from the children of England though I might be content with its grammatical and lexical exposition, and may have to endure its total exclusion. Mr. George Greenwood, M.P., who presided, said they would never see finality in this matter until they had succeeded in basing the system of national education upon some sound and reasonable principle—a principle which would secure impartial justice for all men, and which should secure that no majority in this country should have the power to tyrannise over any minority, however numerically small that minority might be. They did not ask that the State should bring up the children as agnostics; they merely said that the State ought to be neutral in this matter. Secular education did not mean secularist education. Mr. Allanson Picton moved the first resolution as follows:—"That this meeting, recognising that the sole responsibility for religious education rests with parents and Churches, expresses its conviction that there can be no final solution of the religious difficulty in national education until the Education Act is amended, so as to secure that there shall be no teaching of religion in State-supported elementary schools in school hours or at the public expense." Mr. Byles, M.P., seconded the motion. The Rev. Stewart Headlam said he was in favour of the Resolution, because he would no longer stand the impertinence of the State presuming to manipulate in any kind of way the Catholic faith or the Christian religion. He was a cordial supporter of the secular solution because he was a really zealous Catholic. To say that they wanted to banish God from the schools was blasphemous. The Rev. Rowland Evans, a Non-conformist minister, of Leicester, also supported the Resolution, and claimed that in doing so he represented scores, if not hundreds, of his brethren in the ministry. Mr. G. W. Foote and others also supported the motion, which was unanimously adopted. Mr. H. Snell moved and Mr. Stanley Udale seconded the following Resolution:—"That this meeting hereby resolves to form a national organisation to be called the Secular Education League, for the purpose of urging the secular solution upon the country and upon His Majesty's Government." An amendment to substitute the word "civic" for the word "secular" was defeated by a large majority, and the Resolution was carried. It was further resolved that membership of the organisation be open to every person who is in favour of secular education, without reference to his or her religious, political, or social convictions. An Executive Committee was elected to prepare and carry out a scheme of work.

The present position of the Education Question was discussed at a meeting of the English Church Union recently. Viscount Halifax sent a letter in which he said that they wanted no favour and no privilege; they asked nothing for themselves which they were not ready to give to others, but they could accept no national system of education which ignored the Christian religion. A Resolution was passed claiming equal treatment by the State of religions in all schools.

V. Kalyanaram Iyer & Co.,
Booksellers, Madras.

Indispensable to all who wish to speak
 and write English correctly.

**CHAMBERS'S
 TWENTIETH CENTURY
 DICTIONARY**

Of the English Language.

Pronouncing, Explanatory, Etymo-
 logical, with Compound Phrases,
 Technical Terms in use in the
 Arts and Sciences, Colloquialisms,
 full Appendices, and copiously
 illustrated, Edited by Rev. Tho-
 mas Davidson, 1200 pages, each. 2 0

**CHAMBERS'S
 ETYMOLOGICAL
 DICTIONARY**

Of the English Language.

Edited by A. Findlater, M.A.,
 L.L.D. Pronouncing—Explanatory—Etymological 608 pages ... 0 12

Annandale's Concise English Dictionary, Literary, Scientific and Technical, with Pronouncing List of Proper Names; Foreign Words and Phrases; Key to Names in Mythology and Fiction; and other valuable appendices. New and Enlarged Edition with Supplement of Additional Words ... 2 0

Dictionary of Contemporary Quotations, by H. Swan ... 5 10

Famous sayings and their Authors; a collection of Historical sayings in English, French, German, Greek, Italian and Latin by E. Latham ... 2 10

Dictionary of Battles; from the earliest date to the present time by T. B. Harbottle ... 2 10

Hayden's Dictionary, of Dates and Universal Information Relating to all ages and Nations by the Late Benjamin Vincent ... 18 12

**THE GRAPHIC
 ENGLISH DICTIONARY,**

*Etymological,
 Explanatory,
 Pronouncing,
 and Copious
 Appendices.*

Including Literary and Historical Names; Words and Phrases from the Greek, Latin and Modern Languages; of Glossary of Scots Words and Phrases, etc., Edited by A. M. Williams M. A., illustrated with numerous Engravings and 16 full page Coloured Plates. 2 10

Dixon's Dictionary, of Idiomatic English Phrases ... 2 10

Nearly 4000 English Phrases and Idioms which are in very common use are collected and explained with illustrative examples from standard authors.

The Phrases are classified under a four-fold category.

1. **Prose**, such phrases as are used in serious composition by such writers as Macaulay, Mathew Arnold etc.,

2. **Conversational**, those which may be used in social intercourse, at gatherings where strangers are present and where we are expected to weigh our words.

3. **Familiar**, those which can be used only when we are speaking unservedly among intimates.

4. **Slang**, which are general-
 Technical

Works by B. Suryanarain Row, B.A., M.R.A.S., F.R.H.S.

For all purchasers of the following books to the value of Rs. 10, and upwards, a cash discount of 10 p. c., will be allowed. Those who buy all the works including past volumes of the Astrological Magazine, at one time will be allowed cash discount of 15 p. c.

1. Astrological Self-Instructor, in English, with Zodiacal Map and an elaborate scientific Introduction, 4th Edition, thoroughly recast, with large additions and exhaustive glossorial index. This contains 23 chapters while the 3rd Edition contained only 16 chapters ... 1 8 0
 2. Astrological Primer, in English with Zodiacal Map and an elaborate scientific Introduction, 2nd Edition thoroughly recast, with large additions and exhaustive glossorial index ... 1 0 0
 3. English Translation of Jataka Chandrika with Original Sanskrit Text in Devanagari, copious notes and illustrations, improved, 2nd Edition ... 1 0 0
 4. English Translation of Sarwarthachintamani, with the Original Sanskrit Text in Devanagari, or Telugu character, exhaustive notes and numerous illustrations. The most splendid work on Phalabhaga Predictive Astrology or Horoscopy ... 12 8 0
 Every possible combination is given here for man to know his own history past, present and the most desirable future ...
 5. An Introduction to the Study of astrology in the light of modern and ancient physical sciences, 4th Edition, an excellent reading ... 0 8 0
 "Never despise to hold a lamp in the darkness of fatality."...
 6. The History of Vijayanagar, the grandest Hindu Empire of modern times—a most useful, instructive and interesting book Part I ... 3 0 0
 7. The History of Vijayanagar, Part II. In the Press ... 3 0 0
 8. Introduction to the same ... 0 8 0
 9. Swayam Jotirbodhini (Astrological Self-Instructor), in Telugu, 1st Edition ... 1 0 0
 10. Illustrative Horoscopes containing about 120 Horoscopes of all descriptions—most useful for readers of Astrological sciences. These contain valuable practical notes, by which the student of Astrology will be immensely benefitted in his studies ... 1 0 0
 11. A short History of Vijayanagar, an abstract of the big book, the best in the field ... 1 0 0
 12. The Astrological Mirror for good work, an indispensable guide for all men ... 1 0 0
 13. Revival of Astrology 2nd Edition. An excellent reading ... 0 8 0
 14. The Astrological magazine, published during the first week of every month replete with information of the most useful kind and containing valuable scientific information on Astrology and other kindred subjects has many worthy contributors. Annual Subscription ... 4 0 0
- Foreign 7 shillings, American 2 dollars order sent by V. P. P.
 Postage extra.

Apply Sharp to—

THE MANAGER,

OFFICE OF THE ASTROLOGICAL MAGAZINE,

Madras.

JUST PUBLISHED.
ORDER TO-DAY..

Fallon's
New

English-Hindustani Dictionary,
703 pages. Price Rs. 1-4.

An entirely New and up-to-date Edition of THE
ENGLISH-HINDUSTANI DICTIONARY. Produced
under the most Competent Editorship.

FULLY ILLUSTRATED.

" Neatly bound in Cloth, Good Print, Readable Type,
Good Paper, Handy, Useful, and Reliable. A Marvel of
Cheapness.

THE

" PUNJAB EDUCATIONAL JOURNAL,

EDITED BY

THE REV. A. H. HILDESLEY, M. A., F. P. U.

This Monthly Publication is devoted to the interests of all connected with
education in its many phases: commercial and technical, secondary and univer-
sity. It contains notions, notes, and news from everywhere on all topics of
importance to teachers and students. Its leading articles deal with educational
matters of passing or permanent interest, and its readers are kept abreast of all
matters connected in any way with the educational professions.

This journal circulates in all parts of India, Burma and Ceylon.

Subscription (including postage), Rs. 4-8 per annum. First Number sent
V. P. P. for amount of the year's subscription.

CONTENTS FOR SEPTEMBER 1903.

News and Notes.	Our London Letter.	Notes:—
The Punjab University —	Geographical Notes.	British and Foreign.
A Suggestion.	Punjab News.	Our Bookshelf.
Some Accessory Articles	Eastern Bengal and	The Study and the
of Diet.	Assam News.	classroom.
The Times and Places of	Madras News..	Notice.
Earthquakes.		Correspondence.

PUBLISHERS:

RAI SAHIB M. GULAB SINGH & SONS, LAHORE.

V. Kalyanaram Iyer & Co., Booksellers, Madras.



THE INDIAN

Journal of Education.

Vol. XLVII. }
Old Series. }

APRIL 1907.

{ Vol. XV.
New Series. }

Some Remarks on Method.

In considering the means employed in the teaching of a subject, we are
concerned with the question of method. Unfortunately the word 'method'
is popularly used in the sense of 'rule of thumb' and the methodical person
is often distrusted as one who adheres to merely mechanical devices. 'Man
makes methods, heaven makes the teacher' it is said. Hence arises a dis-
taste for methods. Yet all will admit the necessity of method. Hence some
methods have to be found which are not mechanical. To the objection that
each man has his own way of presenting a subject and each boy his own pro-
cess of assimilating what is presented, it may be replied in general that each
calling does train its students, and that this training is found to enhance,
not prejudice, the student's value. A doctor, for example, does not lose his
individuality by studying the principles of medicine. He has to search for
general principles springing out of and again reflecting on his daily prac-
tice. Allowing fully for the personal equation, there still remains in educa-
tion, as in medicine, a body of general principles which have to be followed.
Further, a partial surrender of liberty is a necessary condition of corporate
association.

It follows from this that some method in teaching is necessary. It is,
however, true that, if the teacher who is preparing notes for his lessons turns
himself into a plodding automaton working up from a text-book, his divisions
and subdivisions, he will become dull and his lessons will be wanting in
variety and liveliness. Again, such steps as the Herbartian Five Formal
Steps may be used and yet more easily abused. A teacher who relies on them
as a substitute for his own investigation of the needs of his class will soon
find himself in a quagmire. He can only safely prepare notes by making
acquaintance with the class he is to teach, and writing down fully what he
thinks will take place, and by working up in his mind his materials with a
sequence of thought which must be logical. If this is done, the lesson will
be delivered without effort and deadening pauses. So far from making his
teaching stereotyped and lifeless, his knowledge of exactly what to say and
how much to do will be an economy of time and labour, which will allow of

enlivenments and varied interest being introduced. In fact, instead of being fatal to good teaching, carefully prepared lessons are an essential condition of efficiency.

We are here using the word method to include particular ways of drawing up individual lessons. And we emphasize here the necessity of reading round a subject. It is not enough merely to read the text-book read by the boys. It is the business of the teacher to supplement and interpret the matter of the text-book. He must not be the mere echo of the individual book. His knowledge of the subject must therefore be wide in range and full, and he must have many mental notes ready to hand to meet and encourage sensible questions. Further, though a clear and lucid scheme is necessary for a single lesson, yet the skilful teacher will be ready to abandon it if he finds it unsuitable or if the development of the subject takes, as it easily may do in an intelligent class, an unexpected turn. Once more, for a series of lessons, it is not enough to prepare separate lessons for each period as it comes. The subject must be viewed as a whole, and a general scheme made out, taking into consideration the time allowed and the amount to be got through. If this is not done, there is a danger either of hurrying on and leaving too little subject matter towards the close of the course, or of spending too much time over the initial stages and so finding oneself in the hopeless dilemma of having to compress subject-matter for four or five lessons into one. Moreover from another point of view it is important for the teacher to have a general idea of the subject as a whole. Only by having such a general idea can he avoid dealing with the subject in a fragmentary manner; and he is able by keeping this general idea in view to connect the various portions of the subject so that the whole series forms an harmonious whole,—a chain in which each lesson is a necessary link.

If this is so, it is clearly worth while considering whether there are any general principles which may with advantage be followed, and what is their origin if such exist. In the first instance we have to distinguish general laws applicable to all branches of instruction, and the special laws that relate to a particular subject. We can only treat together subjects which are cognate in so far as the mode of acquirement is concerned.

It is now an admitted law in all educational spheres that the nature of the child must be studied. Further we have to consider his processes of mind when attacking the material and the nature of the material itself. Finally, for practical purposes, we have to remember that it is a class not an individual that has to be taught. From these considerations, ever since the Herbartian writings have been studied, general laws of method are derived. Not that they started Method. The writings of Descartes may lay claim to be the first systematic exposition of Method. Briefly, Descartes

main principles are these. 'Never accept anything as true which you do not know to be so.' 'Separate the difficulties under examination into different parts.' 'Construct thoughts connecting them with what is already well known'; and 'omit no point.' That is to say, in his first principle Descartes protests against precipitancy and prejudice; in his second he emphasizes the need of analysis and scrutinizing; in his third he adumbrates the method of apperceptive teaching and anticipates the maxim of advancing from the simple to the complex and from the known to the unknown; and in his fourth he deals with what is now known as formulation and shows the necessity for making enumeration complete. But to return—in the Herbartian writings we have the following principles enunciated. First of all we have preparation, which is concerned with the content of instruction and relates the new with the old. In its intellectual aspect it is concerned with association, in its emotional aspect with interest. This double aspect runs through all teaching. There is the antithesis of the subject treated logically and the subject viewed psychologically from the standpoint of the class. Too much insistence on the logical aspect may make the lesson dull and unintelligible, whilst it may become confused owing to an extreme emphasis on the psychological aspect. Both extremes are bad. The psychological element is predominant in the preparation, though a good teacher will keep such an interest going all through the Herbartian Formal Steps which are in some ways logical as being inductive in character. After preparation comes correlation, in connection with which it is rightly stated that all correlated topics are to be welcomed which aid the class in gaining a better hold of the subject in hand. Thirdly, we have application—the practice, for example, of an art. Above all, we have the principle of growth which considers the child's mental nature and the nature of the subject.

In connection with particular subjects, laws of apperception are adduced in regard to sciences and deal with cognition, and laws of performance which deal with will as regards arts. Again, from the subjective point of view, feeling is predominant in such a subject as Music, and the method accordingly must secure pleasure. But any classification of such principles is exceedingly difficult, and herein lies the weakness of the Herbartians; for their five steps cannot be a complete exposition of what transpires in the pupil's mind during the process of instruction. Their classification has the advantage of simplicity, but is obviously open to the charge of narrowness and pedantry. Thus though principles undoubtedly exist care must be taken in their use. It will be better to turn rather to the origin of the principles than to consider any further their exact scope and application. This origin will be found by considering the difference

between Psychology and Logic. Psychology considers the emotions, Logic does not. Hence the principles underlying the methods of art-teaching are derived from Psychology, where "our search must be for the psychological processes involved in the performance of these arts, as a basis for our methods." Again, the nature of the child as growing, and the processes of his mind as events in time fall within the sphere of psychology. Further, imitation, interest, memory, volition and correlation are within the scope of psychology and are at the same time necessarily considered, when the foundations of method are determined. On the other hand, Logic is rather concerned with ideas as having a content and meaning apart from the order in which they occur in the mind. It is, therefore, a determining factor in questions relating to the nature of the subject as opposed to the nature of the child. Again, in History and Mathematics there is a certain logical sequence which must be observed. Certain geometrical propositions must precede certain others, if correct thinking—that is, logical thinking—is possible at all. Again, the principle of proceeding from the particular to the universal, from the concrete to the abstract is a logical and scientific one. Again, in Science exact logical definitions are essential. Finally, as regards the logical sequence, a qualification must be made which may be explained by an illustration. In Mathematics parallel lines are easier to understand than the equality of triangles: and the same would apply to History. Thus the demands of psychology, in earlier life at least, may override the claims of Logic.

Experimental Science and The Aim of Education.

The methods of all sciences are to some extent similar. Even in the inductive sciences, there is an element of deduction and verification; similarly observation and experiment enter into what are commonly called the deductive sciences. In any case the experimental spirit is common to all sciences. It is not the monopoly of physics or chemistry. Classical subjects even may be said to participate in it, whilst haphazard methods of teaching science are its antithesis. Indeed the opposition of the spirit of experimental science to that of philosophy is in its nature unreal. For philosophy is the unification of the scientific elements which enter into all subjects, physics and chemistry as much as the rest. The spirit of experience and experiment is the same as that of philosophy rather than its counterpart, inasmuch as philosophy stands for the unifying ideal of education—an ideal which has both an intellectual and a moral side, which combines, according to Huxley, wisdom and uprightness, and which, according to Arnold, constitutes a true criticism of life. Thus experimental science by its very nature is only part of a whole, and deals with the ponderable and measurable. On

that account alone it cannot constitute the sound aim of a science such as education—a science whose outlook on life is synoptic and all-embracing.

If, however, this question is to be profitably discussed, we must enter the lists of controversy, and examine the claims of experimental science to constitute the essential elements in a liberal education. Here we find pitched the tents of the humanists, who agree in aim though they differ at times as to means. Opposed to these are the scientists with Huxley and Herbert Spencer as their champions.

Huxley wrote in a time of reaction,—hence he exaggerates. Yet of the two he is the more moderate. As regards the moral aim in education, he contends that science gives the ideas of the beautiful, and of law and order in the universe. On the intellectual side, such sciences as Biology and physics give accuracy and common sense. And Huxley asserts that science is nothing more than trained common sense. Further, the power of observation and comparison is developed by such sciences. Again, on the practical side, scientific problems can be faced after the general character of the science has been grasped and its methods understood. He deprecates the emphasis laid on the merely utilitarian aspect of sciences and asserts rightly that so taught they will be inadequate to secure the aim in view. As regards the Greek inheritance, he says; "we falsely claim to be the inheritors of their culture, unless we are penetrated, as the best minds amongst them were, with an unhesitating faith that the free employment of reason, in accordance with scientific method, is the sole method of reaching truth." Accordingly he insists on science and at the same time modern literature, English and translations from the classics. He would also have modern languages if time permits. For, he says, "one of the safest ways of delivering yourself from the bondage of words is to know how ideas look in words to which you are not accustomed."

Thus while Huxley rightly emphasizes the importance of science he admits its insufficiency to supply a sound aim in education. He would admit that chemistry for example can only give a chemical aim. Where the experimental scientists produce other results than a knowledge of the world as related to chemistry, their aim is to produce these further results as citizens or moralists. Pasteur, for example, made scientific investigations to get rid of diseases in plants for the good of France. His being a chemist helped his philosophical aim of doing good to France. Huxley in part recognized this, and further realized, as we have indicated already, that science alone cannot supply suitable means for attaining the aim of education any more than it can give the aim itself.

Herbert Spencer, however, is not so satisfactory. His case is as one-sided as possible. He begins with unwarrantable assumptions. He discusses the relative value of different kinds of knowledge for purposes of discipline. He then proceeds to state that this shows science to be of most value. On

its intellectual side, science, he says, is better for the memory and trains a better kind of memory, inasmuch as the student has to remember necessary relations as opposed to what he is pleased to call the fortuitous relations of words. Again, "science alone cultivates the judgment". On the moral side, science is better—so it is stated—as it cultivates independence of judgment and reasoning, and perseverance, while lexicons are bowed down to as infallible authorities. Further, scientific study recognizes the worth of things, engenders respect for uniformity and law, and a true humbleness in recognizing the wonderfulness of the universal Power.

Indeed, it is true that few of Herbert Spencer's propositions as regards education will hold good. He never distinguishes adult and school education; and in school education itself he never differentiates between a general education up to about the age of sixteen and the more special work that begins after that age. Yet the standpoint of the educationalist must change with the pupil's age. Again Spencer takes it for granted that all sciences must be known in order to live. He fails to take account of the division of labour, and shuts his eyes to the fact that in application a little science is a dangerous thing. The ordinary man uses little or none, and the small amount that is picked up at school is very unlikely to be of any use. And yet it is the utilitarian aim that Spencer emphasizes. Further his order of aim is curious—for example, his treatment of parenthood. All the first grades of training from the evolutionary point of view are unnecessary, because ex hypothesi families have persisted inasmuch as they were able to bring up families: and he himself admits that nature has largely taken the matter out of our own hands. This analysis of Spencer's view leaves us at the last with only his "leisure pursuits", which with him come last. We have not made this analysis in order to condemn the teaching of science, but rather to show that the chief advocates of science either expound unsound theories or are fruitful and suggestive only in so far as they speak from a broad and philosophic standpoint. We believe in the necessity of scientific teaching, but deprecate, as the best scientists of to-day themselves do, the regarding of science as the panacea of all the ills to which education is heir.

Nor do we mean to suggest that there is no truth in what Spencer urges. But his views are exasperatingly onesided. When he asserts that the experimental sciences are themselves poetic, he becomes almost ludicrous. Imagine Herbert Spencer's *Sociology* as a guide to Florence, or his definition of evolution as the motto of artistic development. Finally, as regards Spencer, in one passage he gives his whole case away. He says "Knowledge of the lowest kind is un-unified knowledge, science is partially unified knowledge, philosophy is completely unified knowledge."

The truth is both Huxley and Spencer underestimate the value of words and books. To cut oneself off from the past would be to commit literary suicide. For man is the legitimate heir of all the ages, and there are certain moulds in which human nature is forever recasting itself. To take one form of these moulds alone is to develop one part to the detriment of the whole. The experimental sciences are inadequate as constituting the aim of education and they therefore a fortiori are inadequate as means to its realization. Plato recognized this clearly. His really educated man is the synoptic man, the philosopher who sees "the one in the many." The experimental sciences are included in "the many", and have no claim to be 'the one,' much less 'the one' that includes 'the many'. It is no argument to urge that the experimental sciences can produce qualities of reasoning—so do other subjects. It is true that they present certain aspects of life not given in the humanities. But that alone is insufficient. On the practical side, however, we can realize the value of science and give it the four hours in the week that Huxley demands—and even more. But the point of view of science is fragmentary and must be made to fit in with other aspects of life. Science, without the scientific spirit, is the vilest form of specialization. Let us treat science with the respect due to it but not put it before philosophy. And, once more, on the theoretical side, whilst not regarding science as a panacea, let us acknowledge the great debt which the science of education owes to it. Modern science can supply us with much. It can give us methods and modes of attack. The logical methods of induction and deduction are of great value and the introduction of scientific methods does help teaching. Further, science has shown the necessity of observation. Science too has driven home the value and meaning of such formulae as 'proceed from the concrete to the abstract.' Similarly the immense help which the teacher can obtain from the use of apparatus of all kinds has been impressed by science. Science, moreover, teaches rigid reasoning, but not probable reasoning, which is far harder; and Sir William Hamilton points out that in ordinary life probable reasoning is all-important. Thus the debt which Education owes to science is great, though it does not supply a sound aim in education or suitable means for obtaining it. Such an aim has to be given by philosophy, which alone keeps the unity of knowledge in view and includes both the intellectual and moral ends of education. But as regards the means of attaining this aim, philosophy is no more suitable than a too great emphasis on science. Philosophy is only fit for mature minds. All that can be done is to try to teach philosophically—that is to say, the tendency in teaching both science and literary subjects should be towards unity.

The Psychological basis of Handwriting.

BY MR. P. SITARAMA AIYAR, B.A., L.T.

The history of writing exhibits a constant process of decay and regeneration. Careful back-hands degenerate into illegible cursive scripts and then new back-hands are gradually developed which again degenerate. But it is noticeable that throughout this history of writing there is a constant struggle between two principles—the principle of least effort which tends to render writing illegible and the need of being legible which tends to regeneration. Such a struggle is always attended with the efforts of the disciplined pedagogues who aim at the formation of a good current hand in their boys and girls. There is no mistake more gross than that of imagining that undisciplined and untrained teachers are fit to deal with ignorance and mental rudeness. “To force the rays of thought intelligibly through so opaque a medium” says Foster “demands peculiarly and emphatically a great clearness and prominence of thinking and an exact feeling of the effect of works to be chosen, combined and varied.” These remarks are true with regard to the teaching of every subject of instruction.

The traditional habit of forcing young children to write copy-books without giving them any clear idea of the shape and size of the letters, during the earlier years when there is a great lack of muscular co-ordination, the neglect of the teachers in overlooking the defects of the copy written by the boys and such other errors are too well-known to need mention here. Currie says that every writing method should aim at the intelligence of form—an aim which has been lost sight of by many great educators *e. g.* Jacotot. To achieve this aim therefore it is as important for the teacher to learn the psychological basis of writing as it is necessary for him to be able to set a good copy for his pupils. Every teacher knows that handwriting is acquired by imitation but many are ignorant of the several psychical phenomena that are involved in one stroke of the pen.

Professor Baldwin in his treatise on the ontogenic development of the mind points out that the basis of handwriting is *tracery imitation*. By the idea of tracery imitation is meant the sense of connection between what was visually in one's own consciousness and the movements of one's hand or pencil. Children are generally known to make very crude drawings in the beginning of the third year. During this period all the curves made by children are due to movements from left to right when going upward and from right to left downward like the hands of a clock.

Children generally look more intently upon the figure drawn than upon the movements made in drawing the figure. Keeping this figure clearly in his consciousness the child strives to imitate the figure with certain movements

of his own. Here, therefore is the rise of tracery imitation of the child's own mental picture. But it is noticeable in this connection that the child cannot generalise the idea away from particular figures for it is found out from numerous psychical experiments made upon the infant mind that a child who can draw right lines with a fair amount of accuracy and neatness is unable to trace an altogether new figure entirely made up of right lines. The further development of this tracery imitation is to be noticed in the freedom with which children draw complicated figures after some practice. “Another curious phenomenon in the drawings of much older children,” says Passey, “is the tendency to neglect the new object or copy and substitute for it in whole or in part some drawing which the child had already learned to make.” A child, who had learnt to draw well the picture of a man, when asked to draw a bird, gave it all the features of a man with some slight changes.

We see therefore that there are two distinct steps in the acquisition of handwriting—the first being the tracery imitation of an external copy, the second being the similar imitation of a memory picture or form. The preliminary question therefore is how the child gets his visual perception of form. There are two theories which attempt to solve this problem. One of them asserts that “the visual perception of form resembles the apprehension of form by the tactile sense in so far as it arises from the grouping of a number of experiences passive and active. A child combines the experience gained in moving the eye about the boundary lines with the composite impression obtained with the eye at rest by means of the local discrimination of the several parts of the retina. Hence a nice and accurate appreciation of the form of an object implies in the early years at least movements of the eye along the boundary lines of the object.” (Sully) “The other doctrine asserts that the actual form or arrangement of the retinal elements stimulated by the rays of light from the object seen is conveyed to consciousness by a series of local signs—distinct quality of some kind which serves to distinguish each visual or anatomical point from every other.” (Baldwin.)

Whether one or both of these causes operate cannot be definitely stated, for the psychologists themselves have not come to any conclusion about this subject. Still it cannot be denied that in the analysis of handwriting there is a constant series of sensations from the eyes about the external objects which is marked off by Baldwin as the *visual form series*. “The proper inclination, dimensions, and distances of the letters,” says Prof. Bain, “are attained through a delicate sense of visible form which is very various in individuals and it is best cultivated by drawing exercises.”

No less an important part is played by the muscles of the hand as it moves from place to place while writing. Certain particular forms of

letters are traced by certain muscular movements appropriate to them and the strength of the child's imitative impulse partly depends on the vigour of his muscular system. Imitation is also involved in the motor part of the process of hand-writing. In learning to write the child has at each step to represent the next movement before carrying it out. Apart from the sensations of the hand and the arm the child learns from the movements of other people and of his own. By this series of sensations otherwise known as the *optical movement series* the child is able to appropriate each set of movements to a regular visual form.

All the three elements mentioned above are present even in our most rapid and careless writing. The fact that we write letters on ruled sheets of paper rather than on unruled ones shows the dependence on the visual form series of sensations. The dependence on muscular form series of sensations is shown by the fact that the letters are not well formed when we write with a benumbed hand. Further if we write with our eyes shut the letters are badly made although the general form of the letters is preserved.

* The child generally recognizes and names pictures and figures long before he draws them or sees them drawn. This proves that there is a continual growth and upbuilding of different visual form sensation series. Hence a right method of teaching writing should begin with a description of the letters. Models of letters should be shown on the black-board and their forms should be thoroughly discussed. The right method of teaching writing as contained in Perry's Reports on German elementary schools is as follows:—"The teacher first writes the single letters as well as their parts separately on the black-board. They are next thoroughly discussed and described as a whole. Practice then commences in copy-books and on the black-board and is partly carried out by counting. Corrections are principally made in class and are to help pupils to recognize clearly the mistakes they have made. As at the commencement, chief stress should be laid on clearness, accuracy and precision, so in the further practice importance is to be attached chiefly to the firmness and fluency of the writings."

The teacher should also take particular care in his choice of writing materials for the general appearance of scripts has been greatly influenced by the nature of the materials employed whether stone, clay, metal, wood, parchment or paper and also by the implement whether chisel, brush, reed, style or quill and the quality of the ink. Scripts of wholly different origin if written with the same materials require a general external resemblance. If a brush he employed writing becomes thick and upright *e.g.* Chinese writing. Quill or steel pen writing slopes to the right and the upstrokes are very fine.

Geography in High Schools.

We have received the following article, which advocates a system of Geography teaching based on map-drawing. The method is interesting as showing how the various elements of geographical teaching may be connected together on an intelligent basis. But those who study the method may feel doubtful whether the method would be a success in many cases. It would require the greatest possible skill and resource on the part of the teacher and we are afraid that the average man would fail to make the subject clear. Further, the teacher would require to be a very capable draughtsman; great care would be needed in the arrangement of the series of maps; and much difficulty would be experienced in seeing that the sense of proportion as regards size was not lost sight of. Again, the average teacher has to deal with large classes, so that it would be hard to give the necessary attention to each individual map. Indian boys, moreover, are as a rule poor at map-drawing and very untidy, which would be fatal. It is not unlikely too that a poor teacher would omit much that is of importance—for example, he might fail to indicate the reasons for the importance of towns, or to correlate the physical Geography with the general Geography, as we believe should be done. Nevertheless the article will repay careful study; and we believe the method could be used if the teacher is skilful and the class small. In any case, we welcome the article as a proof of the interest taken in a subject of the highest importance—*E.T.*

Inspired by the series of articles on the teaching of Geography that have appeared in the Indian Journal of Education, I have ventured in this article to expound a method which has not received due recognition at the hands of the public. I shall make myself better understood if I outline the method with a reference to what I actually do in connection with the subject of Geography in one of the Forms I am in charge of—*e.g.* Asia for Form V. at His Highness The Maharaja's High School, Trivandrum. The pupils and the teacher are ready, the former with no books but with a few blank sheets of paper, a pencil, and a piece of rubber, and the latter with a piece of chalk in his hand near the black-board. The teacher begins by drawing an irregular V on the black-board which the students copy on their paper. He turns to the class and tells them that it represents the peninsula of Sinai with Mount Sinai just in the middle, which he and the class mark on their maps. He will probably add that Jews and Christians consider the mountain sacred, as their *puranas* say that *Isidura* once descended to the place and gave ten commandments for the guidance of the world. He will point out that the western arm of the sea—the gulf of Suez which the class make a note of—projects more to the north than the eastern—the gulf of Akaba, which is likewise written down on the map. The teacher proceeds: he traces the eastern and western coasts of the Red Sea—two irregular straight lines which are almost parallel to each other. The pupils copy so far. The teacher tells them its name is the Red Sea which the boys write down. An account of the sea follows when, among other things, the teacher mentions that it has a very high surface temperature and that the southern part of the sea has a higher temperature than that of any other

ocean surface in the world. The teacher proceeds, while the boys observe, to trace the southern coast which—it will be noted—is not a straight line and which, the teacher will point out, is equal in length to the western coast of Arabia from the foot of the gulf of Akaba to its southernmost extremity. The students measure the distance indicated with their pencil and trace the coast. The teacher draws attention to the narrow strait of Babel-Mandeb and tells them that the name means 'the door of tears' and why the strait is so called. The island of Perim and the town of Aden are marked on the black-board. The students copy the same and hear how they are valuable possessions of the British Empire standing, as they do, on the highway between Europe and Asia. The teacher names the most south-easterly point—Ras-al-had—which the boys note down. The teacher continues to trace the coast line: and the pupils are asked to note the small peninsular projection opposite the strait of Ormuz (which need not be named at this stage). From the point thus reached, the coast continues to slope to the north-east till it reaches a point opposite to a fourth of the western coast of Arabia from the foot of the gulf of Akaba. The boys copy so far. The peninsula of Arabia is now complete and the teacher says that it is the largest peninsula in the world equalling about 150 Travancores in area. The teacher may now ask the class to make, from the Gulf of Sinai to so far as they have learned, a fresh map and mark on it all that has been marked on the black-board map. They may be permitted to ask questions of, or to give information to, their neighbours. While the pupils are so engaged, the teacher goes round the class from end to end preferably behind the little draughtsmen. He examines every performance making a correction here and there, finding as few faults as possible, and dropping a word of encouragement whenever he finds that his pupils have done well. This over and the pupils being ready with a fresh map, the teacher is once more ready at his post near the black-board. He rubs his piece of chalk over almost the whole surface of Arabia taking care to leave a narrow strip of land on the western, southern, and eastern shores untouched and to have the central regions marked a bit thicker. He tells the boys that the build of Arabia is very simple—the centre a high table-land, the coasts lowlands and the vast territory intervening a table-land with an average height of 3000 feet almost equalling the Sahjadie of Travancore. The students note these facts and shade the diagrams accordingly.

The teacher proceeds with the eastern coast of the Persian Gulf. Beginning with the northernmost head of the Persian Gulf he stops with the point opposite the strait of Ormuz. The students copy the same (on the second map). The teacher and class mark the mouth of the Shatel-Arab.

The former explains that the Shatel-Arab is the combined mouth of the

Euphrates (the western and longer) and the Tigris (which means 'arrow' and, being the most rapid river in all Asia, is appropriately named). He may also add that the streams pass through the plain of Mesopotamia celebrated as the seat of an ancient civilization as is testified to by Nineveh and Babylon (marked). The teacher begins again at the strait of Ormuz (named and marked) and proceeds to a point opposite to Ras-al-had, the fact being noted that the gulf of Oman opens out to the south-east. The distance between the strait of Ormuz and the point opposite Ras-al-had traced once again eastward, brings the teacher and pupils to Karachi. At this stage the class may again be asked to make a fresh map from the gulf of Sinai to Karachi. The teacher will, as before, walk round to see how far each pupil has been benefited by his personal supervision and to give encouraging guidance. He comes back to the black-board and rubs with chalk the whole surface of Irania, leaving an extensive depression covering more than a third of Persia untouched. The teacher tells the class that the whole of Irania is a table-land a little higher than the average ranges of the Sahjadie and that it has an extensive depression which borders on Afghanistan and Baluchistan. The teacher's diagram will also show that this table-land is bounded on the north by the Hindukush and the Elburz (with its highest peak Damavend rivalling three Agasthyakudoms placed one over another) on the east by the Sulaimian and the Hala ranges, and on the south by several parallel ranges higher than the table-land sloping to the north. The students thus see the build of Irania, a table-land with an extensive depression in the middle. It is now time for them to shade their maps accordingly.

I have thus far referred to the several steps in some detail as I mean to cut short my remarks on the remaining portion of the outline of Asia. The details and measurements may not be agreeable to those that have not attempted the method: but the portion above detailed can be successfully attempted, in at the most two hours, if the teacher has control over his class, knows what he is about and has a steady hand on the black-board. An outline map of Asia will be complete in about seven hours—in about a month's time as the time-table is at present generally arranged in the High schools of the Presidency. The next one or two lessons are to be given with a view to giving the students a definite notion of the relief, which in its turn becomes the foundation of the lesson on the rivers, the lakes and the climate of the continent. As before, the teacher and pupils mark the Pamir table-land and the several off-shoots to the east, the south and the west. The fact is impressed that Siberia, Eastern China, and the two South-Eastern peninsulas are countries sloping to the north, east, and south respectively, and support-

* Agasthyakudom is the highest peak of the Sahjadie.

ing the mountain-bound extensive table-land enclosing Tibet and Mongolia. The direction of the Siberian, the Chinese, and the southern rivers following, as they do, the slope of the land in their respective quarters becomes intelligible, and the necessity for a system of inland drainage in the mountain-bound portion of Asia—illustrated by the Tarim—is grasped. The class now turns to western Asia. Irania, Asia Minor, Syria and Arabia form one table-land (with depressions here and there that are specially noted as fit places for rivers to flow through or lakes to be formed such as the desert of Khorassan with the Helmand and the Hamun, Mesopotamia, with the Euphrates and Tigris, Elghor with the Jordan and the Dead Sea.) The whole tract is an extensive high bed sloping to the north. Eastern Europe slopes to the east (the direction of the Volga being an instance in point) and the region of the Ural Mountains slopes to the south (a reference to the direction of the Ural river being made to carry conviction). The southern table-lands, the region of the Ural mountains, Eastern Europe, and the Pamir plateau sloping respectively to the north, south, east and west, it is clear that in that quarter we get an extensive depression: this explains the position of the lakes such as the Caspian, the Aral, etc., and of the rivers like the Amu that never reach any ocean. From this stage to climate, the distribution of plants, animals and man, it is an easy descent. The minerals alone defy treatment according to this evolutionary method and demand isolated attention.

A relief map—if the school possesses one—may be shown at this stage to the class. The teacher will have to be prepared for a regular cannonade of interpellations on the correctness of the impression he has created, about the relief of the land in the minds of his pupils. Those that desire to understand more, those that desire to show that they have understood all, those that find that they did not properly grasp the relief, those that feel confounded at the exuberance of the painted contour—all will assail the teacher and if he once falters or appears to be at his wit's end for a reply, much of the value of his teaching is in serious peril. The relief map being dispensed with, in Form V in about half an hour, the wall-map is hung in class—for the first time—and the teacher and pupil open the text-book—also for the first time after the commencement of the lesson in class. The teacher or some boy under the direction of the teacher reads through the important sections, questions, however, being often put to elicit answers showing that the class understands whether conclusions drawn in the course of the previous lessons agree with, or differ from, the statements now read. This makes it clear that when the preliminary lessons on the basis of map-drawing were given, the teacher should have taken special care to emphasize such names and facts as are given of prominence to in the text-book and to emphasize them in a manner con-

lated to make the young minds view them from the standpoint of the author whose words the boys have to rely upon. This is highly necessary: for if the teacher views the subject in a manner different from that of the author of the text-book,—though both the views will appear, as they duly are, to be two aspects of the same fact to a generalized mind,—there is the certain evil of the pupils' noting the discordance between the class-lesson and the class-book and feeling disappointed at the comparative insignificance of the information that the teacher laid so much stress on. It is highly necessary for several reasons that the teacher masters the *text-book* as well as the subject itself before he commences instruction to a class, and that he bears in mind that his preliminary instruction bearing on drawing is intended to lead the class to the better understanding of the subject *through the text-book* which alone will be in their possession for future reference. Where the arrangement in the text-book is decidedly faulty or inadequate to give a scientific grasp of the subject or to awaken thought, the teacher may deviate from the line chosen in the text-book: but such deviations are—they will be remembered—exceptions; and every deviation from the line of thought followed in the book must be a purposeful act deliberately chosen. This reading of the text-book over, the class can now pass on from the general Geography to the special consideration of the several kingdoms of the continent.

The teaching of the general Geography of Asia in the manner above indicated will take two months at the most, at the rate of two periods or hours a week. Even if it be so, we have to remember that the class gets a scientific grasp of the subject which, making, as it does, the study of the several kingdoms following very light and pleasant, is of utilitarian, as it undoubtedly is of educative, value. I began Asia to Form V about the 20th of January and have now—8th March—finished the general Geography and hope to do the several kingdoms—excepting India—in about a month's time.

A question may here arise whether or not it is desirable to begin with a relief map—the pupils pointing out the outstanding features and the teacher naming and describing them. Much may be said in favour of such a beginning. But relief maps are costly: an exhibition of the relief map does not lead to the display of constructive skill on the part of the pupils: the mass of technical detail in such maps strike the young beginner with a consciousness of his own littleness in comparison with what he has to execute—these reasons make me cling to the method of instruction on the basis of map-drawing. The student seeing nothing terrible in the unpretentious beginning—an irregular V in the case of Asia—feels flattered that what is demanded of him is within his power and feels satisfied that his construc-

tive skill is much more successful and useful than he thought it was. Every boy has work enough to engage him and work which in most cases his heart delights to do.

It is not suggested that the teacher should have a printed map by him for reference while the coast-line is traced on the black-board. Such occasional draughts of wisdom make the boys suspect that, in the matter of the subject of Geography, the extremest limit of the teacher's knowledge and capacity is reached and that after all the seemingly all-wise teacher is no better than a big boy. What is probably worse, such references blast the hopeful enthusiasm of the little aspirants: for they argue not without reason, that the directions that the teacher gives are inadequate to enable them to construct a map as the teacher himself finds them inadequate, and that the work, for the execution of which the all-knowing teacher requires side-glances at a printed map, will probably be too hard a nut for them to crack. That the work is simple, that the average boy has superior skill—these are the facts that give zest to the children and they should never be forgotten. It is highly necessary that the teacher should know what he is about and that his execution on the black-board should be passably telling. No teacher need despair; for he will remember that there are only six continents in this world which, if he will only try, he will not find it impossible to master, and that—as things at present are—in most cases no single teacher is asked to teach them all.

One fact that the teacher will take care to note while the lessons based on map-drawing are in progress, is to see that the several proper nouns he introduces are written on the black-board, so that they will attract the notice of the pupils. The teacher need not necessarily write the names at the proper points on the diagram on the black-board: but the important thing is that he does write down these names and any other new word which he believes will often recur and be of use to the class, in bold print characters so as to be seen and read by his pupils. New names are generally hurried over, mispronounced and misspelt and every university examiner will testify to the chagrin which the wide-spread evil of misspelt proper nouns has caused him. First impressions are deep and lasting: and if proper nouns, when first introduced are seen in their parts and appropriated by the mind with a consciousness of what the several parts are, the chances are that the pupils will be in a position to pay due regard to the spelling of the words which, on future occasions, they will be called on to give.

It is of course clear that the pupils will have to copy on their map such names as are written down on the black-board. But besides these names of places, there is a deal of information about places which in the course of the construction of his map, the teacher has detailed to his class. Most pupils who feel flattered at the success of their constructive skill, will jot down in

some space on the sheet they are drawing on noteworthy facts—e.g. that the southern portion of the Red Sea has the warmest ocean surface, that Arabia and Irania are table-lands, the former being a little lower and the latter a little higher than the average height of the Sahjadie—either with a view to impress them upon their own mind or to satisfy the teacher who, their ingenuity will tell them, will be glad to see that the information he gives is valued. Whatever be the motive, it is necessary that such facts should be noted down on the sheets they have: for these are the only documents which they have to rely on in preparing their lessons at home for the next geography lesson. Such students as do not spontaneously take the initiative in the matter should be induced—but not directly asked—either by a significant look or constant questioning on the subject-matter to choose for themselves, and to take note of, such facts, as in their opinion will be of use to them for their own future guidance. When the text-book has been taken in hand and in it the facts and inferences mentioned in connection with the map have been recognised—and not till then—the papers, with maps drawn and notes entered, may be dispensed with.

I am sanguine that the method referred to, though taxing the powers of the teacher, is more than proportionately interesting to students and educative in results. Treatises on the subject of Geography are available from the pen of authors of first rate ability: but the method sketched out above is one which any teacher—if he is only active—may practise without any costly apparatus. I hope that those interested in the matter will invite it as one deserving a fair trial.

The Madras University Convocation.

THE VERY REV. FATHER SEWELL'S ADDRESS.

MR. CHANCELLOR, MR. VICE-CHANCELLOR, FELLOWS OF THE UNIVERSITY,
LADIES AND GENTLEMEN.

Before entering upon the task that I have undertaken, I desire to discharge a duty which I owe to the Chancellor of the University. I desire, Sir, with your permission, to thank you for the honour you have done me in asking me to deliver this, the first Convocation address under the new Regulations. I am very sensible of the responsibility which your selection has imposed on me, and though I could not but remember, when answering your invitation, how many of the gentlemen now on this platform would do more justice to the occasion than myself, I felt it would be less than gracious on my part to hesitate to accede to a request so kindly expressed, so courteously urged. Graduates of the year! The change through which the University system is passing will form an epoch in its history, and also in the social, the economic and the philosophic life of the country, for these are necessarily more or less

dependent on its educational system. This change must be of deep interest to India's sons and may suitably, therefore, engage our reflections this afternoon.

Changes are inevitable. They belong to the nature of things created. A change of system, however, does not necessarily imply that the old method, which it is sought to improve, was bad, or not the best that human foresight might have devised for the circumstances that brought it into being; but only that our requirements have moved on with the progress of time and that a new order has become desirable to meet them. The adoption of the new educational system, then, on which we are entering must not by any means be regarded as a tacit condemnation of the old, save in so far as the latter is no longer adapted to our times. I say this for your consolation who have received your education under that system. Nor need you ever blush to own that you have been trained under it. There can be nothing to be ashamed of in a system which has endured for half a century and still finds many who have regretted the change as precipitous. There is nothing to be ashamed of in a system which has produced such men as the late Sir T. Muthuswami Aiyar, whose statue adorns the High Court of Justice in this city, Dewan Bahadur S. Srinivasa Raghava Aiyangar, the author and statesman who ended his days in this city a short time ago, or Mr. Ranganatha Mudaliar, an English Scholar and Mathematician of considerable attainments. I might mention many others who were the lights of their day, who rose to high positions of responsibility in the State and in their professions, whose memories are held in respect and honour. But I need not go back to the honoured dead. Are there not living sons of this University, ornaments of their *Alma Mater* and of the land that has given them birth, able to express themselves in English with a lucidity of language and oratorical skill that many an Englishman may well envy, men who have risen to distinction in the learned professions, in the service of Government and in the world of commerce and literature, men who have received the stamp of their illustrious Sovereign's approval for their learning, their probity, their administrative proficiency and their singular ability? The fact that the old system could and did produce such men is the best evidence we could desire of its excellence and utility in its day.

You will now expect me to tell you something of the reasons that have led to its supersession. To do this, I must needs go back to the history of Indian education.

That India was a cradle of learning even in the earliest times, admits of no question. It was in the year B. C. 300, that Megasthenes, a Greek Ambassador to the Court of King Chandra Gupta, found there "a grave and polished society in which philosophy and the sciences were successfully cultivated and held in honour." Later on, the Muhammadan rulers of India was not less forward in founding and maintaining seats of learning. In the early days of British occupation, the country was too unquiet for much attention to education. Still, Warren Hastings established the Calcutta Madrasa and a Hindu College at Benares towards the close of the eighteenth century, and in 1813 a lakh of rupees was set apart by the Government of India "for the revival and improvement of literature and for the encouragement of the learned natives of India."

As the country began to quiet down, education once more occupied the mind of the Government, and but for a controversy as to whether Western or Oriental learning should receive the patronage of the State—which was practically decided by Lord Macaulay's minute of 1835, and finally settled by the resolution of Lord Auckland's Government in 1839—would have taken definite shape earlier. As it was, Boards of Education were appointed and Zillah and Missionary Schools called into existence, which did good work in their day. Meanwhile, the inevitable changes of circumstances, to which I have alluded, were preparing the way for a further advance. The need for educated indigenous assistance in the administration of the country, and, thanks to the untiring efforts of the various Missionary bodies, the diffusion of Western knowledge in the schools wherein English was the medium of instruction, called aloud for some organised system of education,—a call that found its response in the famous despatch of 1854.

The policy set forth in that despatch is so well known that I need not describe it. I will merely note that the despatch, after admitting the duty of Government to provide for the intellectual enlightenment of the country, went on to recommend the establishment of Departments of Education in the several provinces and of Universities in the Presidency towns; the improvement of existing Government establishments and of Training Schools for Teachers; attention to Primary education and a system of Grants-in-Aid intended to elicit and encourage the development of indigenous enterprise in education, and to provide for the eventual transference to local bodies of many of the Government institutions. The despatch further invited the co-operation of all who were willing to assist in the good work, with promises of monetary assistance. The result was, as all the world knows, a most phenomenal stimulus to education and an increase in the number both of educational establishments and of pupils such as the world has rarely, if ever, witnessed. These numbers—to confine ourselves to University education in this Presidency—have risen from 1 college with 302 students in 1855, to 40 colleges with 6,539 students in 1905. In 50 years, degrees have been conferred on over 8,000 Graduates in Arts, and nearly 1,700 Graduates in Law, 300 Graduates in Medicine, 100 Graduates in Engineering, and 500 Graduates in Teaching; a record that may surely be regarded with legitimate satisfaction.

Nevertheless, complaints were now and again heard that the learning imparted by the University was unsatisfactory, that the moral tone of students was not all that could be desired, and that for want of proper control in the regulation of their hours of study and exercise, the general health of students was being injuriously affected.

It must be admitted that these complaints were not without foundation. Some of these evils are doubtless attributable to the constitution of the University as a purely examining body with no other relation between it and those on whom it conferred degrees than that of examiners and examinees. So far back as the days of the Education Commission, they had been noted, and continuous efforts have since been made to remedy them. Philanthropy, both public and private, has done much for the health of the student by

the establishment of a system of Hostels. Affiliated colleges, as they grew in number, have gradually been brought into closer touch with the governing body, and Government and the University have both done their part in arranging for the better supervision of students attending colleges, and have further insisted on due attention being paid to athletics and field games. On the other hand, as regards the complaint of defective teaching, I fear it cannot be denied. The University has produced men distinguished in their professions, but no experts in learning properly so called. The Graduates of the University who have been, or could be, employed in University teaching, have not been all that could be wished for. Now, I should regret if I were understood to imply that the fault lies in the material. No one has ever dreamed of imputing lack of ability to the Indian student. Certainly not I. The conclusion followed that the fault must lie in the system that has trained him, and hence the change.

I am aware that in entering upon the period of Lord Curzon's administration, which I must now do, I am treading on debated ground. I speak, therefore, for those who agree with me when I say that happily at this juncture the reins of Government passed into the masterful hands of that high-minded, far-seeing, capable and fearless statesman. His memory, whatever may be thought or said of him now, will, I am satisfied, yet be blessed by the sons of India as that of a great and wise ruler whose measures for the welfare of the land will prove to have been as sound and judicious as his love for it is sincere.

Lord Curzon at once saw that there was something very defective in the educational system of India. In 1902 he appointed a Commission, which in due course reported that the complaints referred to were well-founded and widespread. Its recommendations resulted in the Indian Universities' Act of 1904. This Act has provided, together with certain reforms in the constitution of the Universities, for University teaching, for the testing of teaching in the colleges not merely by public examinations but by occasional systematic inspection, and for the residence and supervision of students. At the same time the educational standard was to be raised and as far as possible, what had been pointed out as certain characteristic defects of the Indian student remedied.

The carrying out of these reforms in this Presidency has been effected, I take it, with fewer changes than in any other University in India. The fact is, the defects which the Act seeks to redress had been foreseen and remedied from time to time by ourselves before the Act was formulated.

The new By-laws are now in force, with the exception of such as relate to courses of studies and examinations, and you, Graduates of the Year, are, therefore the first representatives of the transition stage between the old system and the new. You have passed through a more or less extended time of hard work and anxious care, and find yourselves at length in possession of the goal you have so long striven to reach. You have deserved your reward, and it is my agreeable duty to offer you in the name of the University our very hearty congratulations on your success, which I now cordially do. In doing so, however, I would have you bear in mind that you belong to the old system that has given so many men of mark to India, for ere long you will find yourselves competing

in the race of life with the first representatives of the—may I call it—"new learning." It will be between you and the next generation that comparisons will be made, and then conclusions will be drawn as to how far the changes now being inaugurated were necessary. The honour of the old course in which you have been reared, lies, then, in your hands. See to it that its honour remains untarnished in your keeping when the comparison will be made,

I am glad of the opportunity of saying this, for I am directed by the By-laws to exhort you to conduct yourselves "suitably unto the position to which you have attained;" and I should wish that what I have said and what I have still to say may impress on your minds so lively a sense of the obligations you have taken upon yourselves this day, that you may ever continue to prove yourselves worthy of the honours you have received. This you have promised you will do "in your daily lives and conversation." You have promised "to support and promote the cause of morality and sound learning" and "uphold and advance, as far as in you lies, social order and the well-being of your fellow-men." Suffer me, then, to remind you that these are solemn promises, not lightly to be made. I trust in making them you have felt that not mere words, but lives illustrative of these academic and civic virtues, are what is demanded of you, and will alone be accepted as the test of your sincerity and of the solidity of the foundation on which your education rests.

It is true you are, as I have said, in possession of the goal you have so long striven to reach, but, I pray you, let none of you make the pitiful mistake of regarding your degree as the goal of your life, of imagining that the time has at length arrived when your education is complete and you may fling away your books, when you are at last free from the thrall of supervision and may follow the unrestrained bent of your fancies. Alas! if it were to be so, you might well be pointed to as evidence that there was something very faulty in the system of education that reared you. There may be some few who stand in need of such advice, but I cannot see before me this large body of young men and women just entering upon their career in life, and not be animated by a strong hope that higher and nobler thoughts and aspirations are filling their minds. I cannot but trust you are all actuated, not by any narrow, selfish wish for your own immediate good alone, but that you are looking forward to establishing a sounder guarantee of your own future happiness, the guarantee that lies in a healthy altruism, in zeal to confer advantages on your neighbour to work for the good of your fellow-men, the good of society, the good of your country and the glory of the common Creator and Lord before whom we all bow.

There is one important duty that will devolve upon you all as educated men and women, to which I cannot omit a short allusion. My interest in the subject makes me regret that time does not permit of my doing more. I speak of Female Education, and I would earnestly entreat of you to do all in your power to improve its condition. For many years I have heard exhortations given from this place and the graduates of each successive year urged to impress upon their unlettered countrymen the incalculable advantages, nay, I would rather say, the imperative necessity of educating their girls. Notwithstanding all that has been said, female education is still in a woefully backward state. I pray you

bear in mind that to insist on it, is a duty you owe to your country. Until the mothers in the land are educated, the training of the sons must ever be hampered and imperfect. It is, or should be, the mother who develops the first germs of thought in a child, and it is the mothers of a country that make the men of the country what they are. There is to me nothing more touching than the tender care with which a mother watches the first dawning of her child's mind the winning perseverance with which she encourages it to notice things around it, or the genuine pride with which she boasts of its first feats of observation. Indian children are often accused of defective powers of observation. Can this be a matter for surprise, so long as the vast majority of Indian mothers are incapable of training their children in the use of these powers? If a mother is unable to plant the first seeds of knowledge in the child's mind, the want will assuredly be felt through life. I beg you, then, not to lose sight of the subject, nor to be satisfied till there are as many girls under instruction as there are boys.

From my interest in the subject of female Education you will readily believe, ladies, who have received your diplomas to-day, how very sincere are the felicitations I offer you, on your attainments. Very special difficulties still lie in the way of the higher education of women in India. These difficulties you have courageously met and triumphed over. You have, then, doubly deserved the honors to which you have been admitted. I trust your success will be for your Indian sisters a guarantee of the advantages of education and a spur to imitate your praiseworthy example.

I turn now to you, young men, who are Graduates in Arts. You are looking forward to entering upon one of the many paths that life opens before you. You may enter the Government service in one of its various branches and rise to be Magistrates or to take an active share in the public administration. You will then be entrusted with grave and responsible powers. See that you use them for the public good, for the furtherance of the public interests, the interests of the people whose welfare and convenience will in a large measure be in your hands. You may enter the world of letters. Again serious responsibilities will meet you in guiding the public opinion of your country. Let not your criticisms be motivated by any petty party spirit, but always endeavour to take a large and just view of public affairs. Important responsibilities also await those of you who will be landed proprietors: in all things be just, be equitable, be considerate to your tenants, have a care for their education, be gentle with the unfortunate, thoughtful of all, for so will you prove yourselves worthy of your degrees.

Graduates in Teaching! You have adopted the arduous profession of instructing the mind and heart; the former without the latter would be a danger rather than a good to the commonwealth. It is to the teaching profession that the world looks for knowledge and skill in imparting it. Its exercise postulates much self-denial, thought, study and erudition. The Aristotles, the Platos, the St. Augustines of old, the Arnolds and others of modern times, will stimulate you to imitation. In all ages, and, above all, in India, it has been a profession that has earned the gratitude and respect of mankind. You may not grow rich;

riches you do not seek. But you will have the honor of being the teachers and moulders of men, of training the intellects and hearts of your students in the paths of wisdom. This must be your reward and believe me, you will find it an ample one.

Graduates in Law, Medicine and Engineering! You have further promised that you will maintain "the purity and reputation of your professions, and that you will never deviate from the straight path of their honourable exercise by making your knowledge subservient to unworthy ends. The Law and Medicine are learned professions, justly held in high esteem by all civilized nations; but remember it was not the mere title of learning and skill, but the men, by the diligent study of their profession, the loftiness of their aims and the rectitude of their conduct, that won for these professions, the respect and admiration of mankind. This is heritage that has devolved upon you to-day. It will be to you to maintain unsullied that high esteem; and you will do so only in proportion as you emulate the noble examples of the high-principled men who have gone before you. On your efforts, Graduates in Engineering, will in great measure depend the development of the resources and wealth of your country. Specialization in your profession grows more varied every day as the discoveries of science increase. You will require constant application to study and frequent renunciation of your ease and comfort in the discharge of your laborious duties, so full of anxiety, demanding so much thought and skill, if you desire to make that progress and attain that success in your profession which I earnestly wish you.

And now I will conclude with one last reflection that sums up much of what I have said. You claimed to have earned by your degree the title of gentlemen. The University has tested by examination your claim to learning and has exacted from you to-day a declaration of certain principles of conduct in the use you will make of that learning. It is the union of these principles with learning that gives a claim to the title of gentleman which you rightly profess to hold in such high esteem. But if you would be gentlemen in deed, you must ever behave as such. And what is a gentleman? It is something more easily recognized than defined, but if I may venture on a definition, I would say that a gentleman is the embodiment of every manly virtue, one whose conduct is guided by the dictates of truth and honour, who would scorn to do a mean or sordid action, and is at all times disposed to side with the weak against the strong and to uphold the cause of justice against oppression and wrongdoing, who subordinates private interests to public duty, is modest in speech and polite to all, because he knows his rights and can defend them, and is equally ready to concede to others theirs. Be gentlemen, then, in all you think and say and do, and so will you be acting up to the standard I have endeavoured to delineate for you as becoming the several professions to which you have this day been called, or are declared qualified to enter upon.

Once more I congratulate you all, young ladies and young gentlemen, on the attainment of the degrees that have been conferred upon you this day, and wishing you all success in your respective careers, I bid you heartily Godspeed.

Public Instruction in Burma in the Year 1905-06.

Mr. Covernton assumed charge of the office of Director of Public Instruction in Burma in April 1906. His report is a summary of the educational work of the Province during the year which had just expired, and affords an interesting review of the educational system of the Province as it appears to an officer whose previous experience has been gained elsewhere. Any proposals which the Director may desire to make for the reform of the grant-in-aid rules or in respect of any other matter, as soon as he has become well acquainted with the local conditions, will be welcomed and will receive the Lieutenant-Governor's careful consideration.

2. The record of the year's educational administration is on the whole one of continued progress. The numbers of scholastic institutions and of their pupils both increased, and the expenditure on education increased in even greater proportion. Measured by the increasing rate of expenditure alone, it is clear that there has been in this Province during recent years a steady and even a rapid advance in the provision of educational facilities for all classes of the people. The expenditure on education from Provincial funds increased from Rs. 11,48,473 in 1904-05 to Rs. 14,15,227 in 1905-06. In 1901-02 the expenditure was only Rs. 8,24,288. If Provincial and Local funds are combined, the total expenditure on education in 1901-02 was Rs. 12,00,556. In 1905-06 it amounted to Rs. 20,17,108. This large increase has been rendered possible by the two recurring grants of four and two lakhs respectively, which were made by the Government of India from Imperial revenues in 1902-03 and 1905-06 to promote the advance of education in the Province in accordance with the policy based on the recommendations of the Simla Conference of 1901. As was explained in last year's Resolution, there was some delay at first in this Province in carrying into effect the reforms and improvements which were recognized as desirable and which were rendered possible by the additional funds placed at the disposal of the Education Department. A recent examination has in fact shown that, after allowing for the normal expansion of Provincial expenditure on education, there is a balance remaining unexpended from the two Imperial grants amounting approximately to eight lakhs of rupees. It is intended to set apart, as funds permit, an equal sum for future expenditure on educational objects. In the meantime, the Lieutenant-Governor has no doubt that by the increased expenditure incurred a substantial improvement has been effected in regard to schools of all classes throughout the Province. The more important of the measures adopted are described in detail in the first two chapters of the report. Briefly, they are an improvement of the qualifications and the status of teachers of all grades, the strengthening of the controlling and inspecting staff, the extension of more liberal assistance in the form of grants to aided institutions of all classes, and the establishment of a number of Government schools, both primary and secondary, under direct departmental management. Some of these latter were already existing as Municipal schools, and were merely transferred by the Municipal Committees concerned to Government control, but for the majority new buildings are required. The cost of constructing these will be a suitable charge against the unexpended balance of the Imperial grants. The progress of

the School for Shan Chiefs at Taunggyi has been very satisfactory. It promises to be a most useful institution. The scheme for the establishment of a Medical School has taken shape and the School has been opened since the close of the year under review. Progress has also been made in the improvement of the Engineering School at Insein. The Lieutenant-Governor concurs with the Director in thinking desirable a rearrangement of the present distribution of Inspectors in order to enable them to keep more closely in touch with local officers and local conditions.

3. Collegiate education in Burma is in a backward condition, and the report shows no improvement in the year under review. The number of students in attendance at the one first-grade College of the Province showed a slight increase, but the number who passed the B.A. and F.A. examinations was even smaller than usual. The Lieutenant-Governor has no doubt that to ensure better results the staff of the Rangoon College requires to be strengthened, and proposals to that end will shortly be submitted to the Government of India. The American Baptist Mission Union are, it is understood, still engaged in the preparation of the scheme, to which reference was made in the Lieutenant-Governor's Resolution on the Report for 1904-05, for the conversion of the Baptist College in Rangoon into a first-grade institution. The Director of Public Instruction suggests a doubt whether the Province is in a position to afford adequate support to two first-class Colleges, and it must be admitted that the statistics of attendance at the Rangoon College do not in themselves afford much encouragement. The desire of the Mission, however, to raise the status of their College meets with the Lieutenant-Governor's full sympathy, and he hopes that the project, when submitted, will be found to merit financial support. His Honour is aware that the Baptist College, being supported by a religious body, might attract a certain class of students who would not be anxious to attend a secular institution.

4. Secondary education generally made fair progress during the year under review, but in the higher classes of secondary schools the results attained were not altogether satisfactory. In the High Department generally there was a considerable decrease in the number of scholars in attendance, and the number of pupils who passed the matriculation examination of the Calcutta University was less than one-half of that of the previous year. For one section of the community the most important event of the year was the establishment at Maymyo of a Government High School for Europeans and Eurasians. This fills a much-needed want, as there has hitherto been no European school in the Province where European or Eurasian boys could obtain their education in a temperate climate. With the appointment of a Principal in the Indian Educational Service and a sufficient and well-qualified teaching staff, the Lieutenant-Governor hopes that the school will in time attain the level of best hill schools in India. The number of primary schools in the Province which received aid from Government during the year, and the number of scholars attending them, showed a considerable increase over the figures of the previous year, and the report is generally satisfactory with regard to this important branch of educational administration. The Lieutenant-Governor fully recognizes the importance of the correct study of the

vernacular, especially in primary schools. If the Director of Public Instruction can suggest any practical measures to counteract the tendency, to which reference is made in the Report and which no doubt exists in Burma as elsewhere, to neglect the vernacular in response to the general demand for early instruction in English, his proposals will receive careful consideration.

5. The Lieutenant-Governor's thanks are again due to the Educational Syndicate for their continued assistance in the conduct of public examinations and in advising the Local Government on educational questions.

Education, Elementary and Secondary.

BY THE LATE SIR MICHAEL FOSTER, K. C. B., F. R. S.

The term 'elementary education,' though used from time to time before the Education Act of 1870, was undoubtedly brought into general use and given a legal meaning by that Act, the object of which was to 'provide for public elementary education in England and Wales.' Though for many years previously grants from the national purse in aid of education had been given by the committee of the Privy Council which subsequently became the Board of Education, the proposal to pay for education directly out of the rates was a new thing running counter to many strong prejudices. To meet those prejudices the Act limited the instruction thus to be paid for to that which was absolutely necessary; the teaching offered by the Act to those who presumably could not well afford to pay for it was to be strictly elementary so as not to compete with the higher teaching paid for by the well-to-do out of their purses.

By the working of this Act of 1870 the term, 'secondary education' which had been gradually coming into use acquired a definite meaning; it came to denote all that education below university teaching which was not provided for in the public elementary schools established by the Act or in the voluntary schools which were offering the same elementary education as that given in those schools. Thus the two terms 'elementary education' and 'secondary education' came to bear meanings somewhat different from mere degrees of learning. 'Elementary education' came to mean that kind of education which it is lawful to pay for out of the rates and which therefore must be limited in character, and 'secondary education' all other kinds of education below university teaching, not paid for out of the rates. The distinction became a class distinction, not an educational one.

During the last quarter of the past century elementary education developed rapidly; while secondary education remained for the most part disorganised; it, under the direct influence of public control, became stringently organised. Continuing to be restricted in character by reason of its legislative conditions it became more and more differentiated as a special kind of education, special as to the subjects taught and still more as to the way in which and the extent to which these were taught. The teachers teaching this elementary education became sharply distinguished by their training, by their position, and by the limits of their careers from the teachers of secondary education, so much so that

when in course of time a Register of Teachers was established, the elementary teachers, the teachers in elementary schools, were at once and without difficulty placed in a category by themselves, wholly separate from the teachers in all other kinds of schools.

During this development, however, a feeling sprang up, and year by year grew stronger, that this elementary education, as defined by law, though intended for the industrial classes, and defrayed out of rates, because it was supposed to be for the benefit of the industrial classes, was seriously failing in adequately fitting the young of those classes for industrial careers; what was taught in the elementary schools seemed to have no connection with actual industrial life, to be of little or no use when it was brought into the workshop, and otherwise failed to make the learners ready to become skilled and capable workman and workwomen. Hence arose a demand for what is vaguely and uncertainly known as technical instruction. An effort to supply in the school itself something more than the ordinary school teaching was checked by the Cockerton Judgment; an attempt to provide what was needed by the Technical Instruction Act brought about variable but on the whole uncertain and inadequate results; and, though various subsidiary agencies have been employed as aids, the state of elementary education at the present day is such as to have led to the widespread conviction that the system is failing to effect satisfactorily that which it was intended to effect, namely, to equip the children of the lower classes for the occupations which they would probably have to follow.

The failings of the system are very clearly set forth in a report which the Consultation Committee of the Board of Education have made to the Board on 'Higher Elementary Schools.' The so-called 'Higher Elementary School' is an attempt to remedy the deficiencies on which we are dwelling, and in reporting on the features which a Higher Elementary School ought in their opinion to possess the Committee have been led to some general considerations worthy of most serious attention.

The question referred to the Committee, but in its narrowest terms, was somewhat as follows.

When a bright boy or girl has adequately profited by the instruction given in the elementary school up to about the age of twelve, what further teaching for two or three years will best equip him or her for one or other of the lower posts in industrial or commercial life? The Committee report somewhat as follows:

The teaching ought to be of such a character as to awaken the interest of the pupil and to make him or her feel that what he or she is learning will be of use in the occupation which he or she will probably follow.

The teaching ought to be carried out in such a way that the senses, the hand, eye and ear are trained, as well as what in a narrow sense is sometimes called the 'mind', the mind being trained as far as possible through and with the help of the body. In other words, what is sometimes called manual instruction ought to form an important part of the teaching, but ought to be made a help to and as far as possible a means of the more definitely intellectual teaching.

The teaching ought to be twofold in character: on the one hand humanistic and literary, and on the other scientific. Of the former English history and literature should supply the basis, with such extensions as may be found desirable; the latter should be furnished by elementary mathematics and some other sciences. Both kinds of teaching ought to be carried out with the view of building up character and producing a well furnished, active, alert mind rather than with the view of imparting special knowledge; but the teacher ought to strive so to teach as to make his pupils feel that what they are being taught will be of use to them in and will fit them for their after life. In order to enable him or her to do this effectively, the teacher must have considerable latitude as to exactly what he or she teaches, must not be too strictly bound by formal curricula, and must be allowed, should the circumstances of the district of the school suggest it, to make use of the industries and occupations with which the pupils necessarily are familiar as the subject-matter of the teaching, but in such a way as to lead the learner to general principles and not to premature routine acquaintance with the special practices of the industry selected for the lessons.

No one can doubt that such a kind of teaching, carried on from the age of twelve to about fifteen or even for a shorter period, by a skilful teacher, fully alive to the ideas which have led to such a programme and keen to secure the results which it promises, would in very short time raise to a marked degree the intellectual level and strengthen the characters of the pupils who had the good fortune to be so taught. But such an education is not elementary education in the sense of the Act of 1870; it is not the mere beginning of education so necessary as to justify its being paid for out of the rates; it is not an education exclusively or even specially intended or fitted for the working classes. The kind of teaching recommended for the higher elementary school by the Consultative Committee is essentially a secondary education based on the elementary education given up to about twelve years of age; and it is also emphatically and essentially such an education as with some extensions would prove the best possible education, not for the children of the working classes only, but for all those young people who have to leave school at about fifteen or sixteen years of age in order to enter upon active life; and these form the majority of the young of the kingdom.

No wonder that a very large part, if not the greater part, of the Report of the Consultative Committee is taken up directly or indirectly by the difficulties presented by the competition naturally arising between schools offering such a teaching, under the advantages of the system of elementary education, and many of the schools teaching to a large extent at least the same subjects which are conducted under the want of system pertaining to secondary education.

These difficulties, which are too great to be satisfactorily overcome by local adjustments, and other difficulties continually met with, suggest that the present legislative distinction between elementary and secondary education needs serious reconsideration. And indeed such a serious reconsideration seems all the more desirable seeing that the old fundamental distinction between elementary and secondary has been done away with. Upto 1902 elementary education was that which could be paid for, secondary education that which could not be paid

for, out of the rates, except in the special cases in which the Technical Instruction Act was used to promote higher technical training. The Act of 1902 introduced, in a limited way it is true, but still definitely introduced, the important principle that higher education, meaning secondary education, might be paid for out of the rates.

The removal of this clear distinction has left the differentiation between elementary and secondary education uncertain and obscure. Some have urged that elementary education is that best adapted for those who are obliged to leave school at an early age, at about 12 years or at 14 or 15 years at latest; while secondary education is that best adapted for those who can stay later up to 16 or even 18 years. But such a narrow age distinction cannot be considered satisfactory; and indeed it is in reality an indirect method of expressing what after all is the real distinction, namely, a social, a class distinction; elementary education being the education of the working classes, secondary education that of the well-to-do classes or at least of the classes of higher social rank than the working classes. This underlying distinction is perhaps better expressed by the statement that secondary education is that which leads up to University education, and elementary that which does not, but ends in itself. And this mode of expression does involve a very real distinction, through which one gets more or less to the heart of the whole matter. The universities being exacting in their demands, these have to be met, not near the close of school-life only, but throughout its whole course; the whole of the teaching in the secondary school from its very beginning onwards, from its lowest classes upwards, is arranged so as to meet university requirements, irrespective of whether that teaching is or is not good for the pupils who have to leave the school at a relatively early age and do not go on to the universities. In the elementary school, on the other hand, the teaching is at least theoretically arranged so as to help the pupil in after life at whatever age he or she leaves the school.

If this be so, and it seems to be so, there is surely something wrong here. A university career keeps the learner unproductive up to at least twenty years and in many cases much longer. But only the minority of the young of the country, the minority even of the young of the classes above the working classes, can afford to remain unproductive to so late an age. This difficulty, this very grave and serious difficulty, appears to have arisen because in education, as in other things the evolution through which we have gone has been in some respects imperfect; in passing on to a new stage we have remained encumbered with things belonging to the old stage.

In the old times the universities were the only means of education. And it must not be forgotten that they were at the beginning essentially technical institutions training men for the only careers in which learning was at that time of any use, the careers of the Church, Law, and medicine. Men of noble birth did not frequent them for the sake of culture; to merchants and men of business, the book learning, which was the only learning taught by them, was useless. At that early age the universities were almost the only means of education, and such schools for the young as were established, the forerunners of our grammar school were mere feeders to the universities. Hence the ways of the universities governed the whole of education.

Since those early days things have changed very much; education has become the first need of all classes, and the universities now form a part only, and indeed a small part, of the whole educational mechanism. Yet, in spite of the changes which have taken place, these autonomous and to a large extent irresponsible bodies continue to dominate over a large part of education; their ways have to be followed in the greater number of the schools for the young.

This is not as it should be, not as it would have been, had the evolution of education been complete. In a complete and natural evolution, as the need for giving to all classes and all ages a training as full as possible and as closely adapted as possible to their varied circumstances became increasingly recognized, there would have gradually grown up a progressive system, under which at each successive year of school life more and more was taught to each scholar, the character of the teaching and more particularly the nature of the subjects taught being all along, but increasingly so at each successive year, made manifold in order to meet the manifold demands of actual life. This would be the natural result of the conviction that education of an approximate kind is needed at all ages and in all stations of life. In such an evolution the university would be the means of the highest teaching in the case of each of the previous developments, its work being determined by what had gone before. Thus whatever kind of learning was taught in the schools, with increasing fulness as the scholars advanced in age would find its highest development in the university, and that whether the kind of learning was literary or scientific in character, including as scientific the kind which is sometimes spoken of as technical. The teaching in the schools and in the universities would both proceed along the same lines, being both directed by the desire to make the teaching fit the scholar, whether young or old, for actual life in the broadest and best way. And since the more numerous schools would be more closely in touch with actual life and more ready to recognize what kind of learning was wanted for the welfare of the nation, the ways of the schools would be the dominant ways, they would govern the ways of the universities.

Such a complete evolution, however, has not taken place, and the relations of the schools to the universities are not what has just been sketched out. The older universities, in spite of recent awakenings, are not fully in touch with the actual life, and the younger universities have been in their birth, and are still in their growth, largely influenced by the traditions of their elder sisters. The difficulties which at the present day beset the schools for the middle classes, and especially those for the real middle or lower middle classes, are largely due to the demands of the universities conflicting with the demands of actual life. The university asks for one thing, while the parent who intends that his boy should go direct from the school into practical life asks for another thing; and the schoolmaster, ambitious to keep in touch with the university and yet anxious to please the parent, tries to do both things and does neither well.

It is undoubtedly a great thing that the schools should supply a ladder by which bright boys or girls may mount from the very beginnings of learning right up to the university. But they who can climb such a ladder, even though in the years to come they increase in number, and it is to be hoped that they

will largely increase, must always remain the smaller number of scholars. The larger number of scholars in the schools of the country must always pass directly from the school at a variable but always early age into actual productive life. And surely to secure that these latter, these more numerous scholars should find in the school the teaching which best fits them for the struggles of actual life is a far greater thing than the provision of the 'ladder.'

Throughout our educational system at the present time may be seen a tendency to sacrifice the interests of the common place many, though these really need the most care, in order to secure benefits for the promising few; and this tendency is undoubtedly producing evil results, as indeed is seen in the effects of the present system of university and other scholarships. Such a tendency ought to be withstood, if nowhere else at least in our middle-class schools, seeing how important to the nation are the issues involved. One of the most pressing needs of the present day is to ensure that the many boys and girls who leave our middle-class schools at a relatively early age should do so fitted by their school life in the best possible way to perform the duties of the posts which they are about to fill. The work of these schools ought to be most carefully directed to secure this result, instead of being governed by the desire of making the schools feeders to the universities.

If now we ask the question what ought to be the character of the work, what the kind of teaching carried on in order to secure the above result? the answer is not far to seek. The ground plan of the teaching ought to be the same as that advocated by the Consultative Committee for the Higher Elementary Schools, namely a literary training with English as its backbone, and a scientific training, both literary and scientific subjects being taught in such a way as to awaken interest and compel thought, and both combined with a correlative development of the senses and bodily faculties. On this ground plan could be built up in the successive years of school life such successive extensions or specialisations as might seem to be called for; to English would be added foreign languages, and if need be, the ancient tongues; history would develop into social economy, the artistic faculties would be cared for, and the sciences taught would be multiplied, each, as occasion demanded, being carried on into its technical applications.

Such a kind of teaching, even imperfectly carried out, would, so far as it went fit the scholar for practical life; not only having equipped him or her with much needed technical knowledge and skill, but also having helped to build up the character, to enlarge the mind, and to impart that general culture without something of which no one can be a proper member of society, whatever be his or her station in life. Moreover, if the teaching were well carried out, if it were placed in the hands of capable teachers with the gift of making their scholars think, the work of such a school, though primarily directed towards fitting the scholar for practical life, making him or her a useful alert citizen, would in addition, though many would not expect it, prove the best preparation for at least the newer universities with their wide entrance gates and catholic teaching, and perhaps after some years might become an acknowledged pathway to even the older ones.

Hardly anything in matters of education is more urgently wanted at the present day than the frank acknowledgment that in the schools the majority of the scholars of which pass directly from the school to active life—and such schools are not only many but increasing in number—the main business of the school ought to be the equipment of the scholars for active life, and if the school does undertake to prepare for the universities this should be regarded as a wholly subsidiary object.

The schools which we have just been discussing are 'secondary' schools. In the eye of the law they stand in a position different from that of elementary schools; they and elementary schools are administered by different departments of the Board of Education. Yet the kind of teaching which even now does to a large extent obtain, and which ought everywhere to obtain in these schools, is, in its fundamental features, identical with the kind of teaching which the Consultative Committee advocate for Higher Elementary Schools. The basis of teaching in the two kinds of school is identical; the difference between the two lies simply in this, that in the secondary school the scholar may stay, in the school to a later age, and that consequently some of the teaching in the school may be more advanced and more specialised than any of the teaching in the Higher Elementary School.

Further, a large number, and indeed a rapidly increasing number of these secondary schools are governed and administered, as are the elementary schools, by the state, as represented by local authorities, municipalities, and the like, and it is now legal to support or aid these schools out of the rates.

In the course of development all real distinctions between the two kinds of school have disappeared; yet they continue to bear different names and are differently administered by the central authority, with confusion and trouble as the result. Surely there is need, and a pressing need, of some change in this respect.

One distinction of schools into kinds is fundamental, logical, and easily carried out in all its details—the distinction between the schools which are supported and governed by the State, either directly or through its representatives the various local authorities, and the schools which are not; the distinction, in other words, between public and private schools. The two kinds of school do exist, and will continue to exist, for class distinctions and social feelings will always be strong enough to afford adequate support to private schools. At the present moment a difference in the character of the teaching carried on in the two kinds of schools is more or less obvious; the teaching in the private schools in the above sense is on the whole more elaborate and higher than that in the public schools. But there is no reason in the nature of things why this should be so; there is no reason why the teaching should not be as varied and complete in the public as in the private school. If it is to the nation's benefit to pay for the beginnings of learning; it is no less to its benefit to take care that those foundations are properly built upon, that adequate use is made of the beginnings; otherwise much of the initial expenditure would be wasted; and indeed this is now admitted.

The only valid distinction between the two kinds of school lies in the one being public, the other private.

Within each kind of school, however, there can be, as regards the character of the teaching, no fundamental distinctions and certainly no binary divisions. But there can be, and indeed there must be, within each, a multitude of smaller distinctions so as to adapt the teaching given to the varied demands of life and the varied abilities of the scholars; and it is because the artificial distinction into elementary and secondary hampers so greatly the adjustments of these smaller distinctions that it acts so injuriously.

How much we lose, and how greatly the progress of education is hindered by this present distinction, will perhaps be clearly seen if we allow ourselves to imagine what could be done if the distinction were done away with, and all public schools, all schools governed by the State, were administered under the same system. It would then be possible for a local authority, according to the demands and the opportunities of the area under its command, to establish schools of a greater or less number of different grades. In an area in which the demands and opportunities were great there might be several grades distinguished from each other by the progressively advanced character of the teaching. In the lowest grade the teaching would be simple and elementary in the true sense of the term; in succeeding grades the teaching would become more varied and more advanced; and in the highest grade—in the case of some areas at least, if not in all—the teaching would be of such a kind that the scholar might pass from it to a university, the teaching in which was adequately Catholic, and included so-called technical as well as humanistic and culture studies. All the grades being under one administration, many of the present difficulties attendant on the transference of a scholar from one grade to another would disappear; the main condition of transference would be, not so much the mere age, as the progress, ability, and promise of the scholar. The schools of all grades would be of a general character; but in some areas it might be found of advantage to make in this or that grade this or that kind of teaching more or less dominant; and again in some areas schools of a distinctly special character might be established. Indeed, not the least merit of such a system would be that it permitted, what is so difficult under the present arrangement, as much elasticity and variety of teaching in each area as the circumstances of the area demanded and allowed. Such a system would bring us far nearer than can ever be possible under present arrangements to that ideal condition of things in which each scholar would be put within reach of the particular kind and amount of teaching suited to develop most fully his or her latent abilities. But the benefits to the teacher would be at least no less than those to the scholar. No one who ponders over the present condition of education can look without misgivings and forebodings on this position and prospects of what are now known as elementary teachers. The result of our educational legislation has been to create, under this term, a special caste of teachers, sharply isolated from all other teachers. Important as from every point of view their duties are, these have a very limited range and are so uniform in all the schools, and so simple as to encourage, and indeed to render up to a certain extent successful, a rigid mechanical handling of them on the part both of the authorities and of the teachers themselves.

Deeply as the individual teacher may feel the great responsibilities put upon him (and 'him' must be understood here to include 'her') in laying the foundations of knowledge, ability, and character in the small section of the great industrial class entrusted to his care, and great as may be his aspirations to contribute to the nation's welfare by yearly leading a group of children on the way to become intelligent, alert, and wholesome citizens, he is conscious that he cannot always do what he thinks best, but must work within the narrow limits of the rules prescribed for him; and should he unhappily have no such feelings or aspirations, his teaching becomes of the worst mechanical kind; the weight of routine and monotonous uniformity presses heavily on every elementary teacher, good or bad. And the training which he has had to qualify him for the post is a training by itself, a training carried out in most cases apart from other teachers, a training narrowly directed to fit him for his particular duties only, and, like those duties, stamped with the stamp of mechanical uniformity. Both the duties and the training tend to make him a something different from all others engaged in the great work of teaching and to write on his forehead the signs of a special caste.

Moreover the body which he has joined, the system of which he has become a part, is a closed system, within which there is little to excite his ambition; the most he can look for being a larger and a better school. Monotony and uniformity darken his whole career, as they do his training and his duties. The system itself leads to nowhere, the teacher's chief hope to better himself lies in leaving it.

All this is bad, bad in many ways. It tends to make the teacher of the industrial young a stereotyped mechanical mediocrity; whereas it may with great force be urged that he perhaps even more than other teachers ought to be elastic and versatile, since laying rightly the foundations of knowledge and character is a harder task, and especially a task demanding greater variety of aptitude and greater power than that of merely carrying onward a little further those who have already advanced some distance on the way. It further has an injurious effect in preventing the education of the industrial young from keeping in touch with other education and in hindering the flow of salutary influences backward, from the higher to the lower kinds of teaching.

Were the present artificial distinction done away with, were all the state-aided schools recognized as forming one system within which were many different grades and kinds of teaching, most of these evils would disappear. The bright young teacher beginning his career in the humblest of primary schools would be spurred by the hope of reaching in his maturer years a post of no small importance and emolument; and even if he were led to remain to the end in the more lowly post he would be sustained by the feeling that he was a fellow member of the same body as some of the most prominent schoolmasters of the day. In a system based on the transference of scholars, according to their fitness, from a lower to a higher school, all grades would influence each other; the higher grade would be led to take care that its teaching was such as to be of the most profit to the scholars coming to it from the lower grade, and the lower grade would be stimulated to make its teaching such that its scholar

would be ready to benefit by the teaching supplied by the higher grade. And possibly, from time to time, an authority impressed with the importance of laying a sound foundation might take such steps as would secure for the post of master in a primary school a teacher whose experience in the higher schools had taught him what such a foundation ought to be.

Is it possible to bring about some of the changes dwelt upon above?

The organisation of all public schools, that is to say of all schools supported by the State, into a homogeneous system of graded schools would of course involve taking steps to arrange the relations of such schools and of all belonging to them to schools not so supported by the state. Such steps would entail many and great difficulties, bringing in considerations different from any of the foregoing, but difficulties which do not seem insurmountable.

—*The Nineteenth Century and After*

The Needs of Cambridge.

The advance of education is a very expensive luxury. The even course which the older Universities were so long content to follow has ceased to serve the needs of the student. Fresh regions of knowledge are continually opening before him, and his conception of how to cultivate the regions of which he is already in possession grows in cost as it grows in magnitude. The studies which once represented the contributions of a University to the aggregate of learning are no longer enough for him. Year by year new subjects, new sub-divisions of subjects already taught, put in a claim to be provided for, and these late arrivals have to be housed and equipped on a different scale from that which gave the scholars of an older generation all that they needed. So long as theology, classics, mathematics and philosophy stood for the sum of human knowledge, little was required in the way of apparatus. The sum of their wants was a library to contain the records of former labour in the same field, and professors to show how this former labour bore upon the work actually being done. Even here however, expenditure has not remained stationary. New languages are knocking at the University gates, while those that have already gained an entry have to be taught to larger classes and with greater thoroughness. Thus at Cambridge, we learn from the Chancellor's appeal which appeared in last Saturday's papers, while "there is adequate provision for the teaching of some of the more important Oriental languages in their living forms"—Note the care with which even this admission is qualified so that it shall not be used hereafter against those who make it—there are many gaps to be filled. The Professorship of Chinese "is not permanent," and the Professor gets only £200 a year. As yet the University has taken no notice of the march of history in the Far East, for "there is no Professorship of Japanese." Where the wants of the moment are thus neglected we can hardly expect to find those which are less near us in point of date any better cared for. Where Japanese still calls for its Professor, we learn without surprise that "there is no provision for the study of Egyptology or Assyriology", and that the stipends of the Lecturers in Persian and Aramaic "are inadequate." We are almost tempted to feel that these

languages may think themselves fortunate that they have even Lecturers. It is more wonderful perhaps that languages nearer home should be in much the same plight. "The summary of the more pressing needs of the University" which is appended to the Duke of Devonshire's appeal notes the absence of Professorships in French and German, of Lectureships in Spanish and Italian, and of a permanent endowment of the existing Lectureship in Russia. History is also in need of more teachers. With one Reader and two Lecturers in addition to what it now has, the older idea of the subject would be satisfied. But even then Cambridge would be behind some other Universities, for there would be no regular instruction in palaeography or diplomatic history. In fact, every subject is crying out for more teachers. Three or four Lectureships are needed in Economics and Politics, and two more Professorships even in Mathematics, with which Cambridge has always been especially associated.

All this, however, is as nothing by the side of the demands which the newer studies make on some as yet undiscovered purse. In the way of a round sum, anthropology makes the biggest claim. The University is rich in ethnological collections, and there is a site waiting for a museum in which to arrange them. But the museum itself does not exist, and it will take £25,000 to build it. Medicine comes next with £20,000 to complete the Medical School, and even this will not provide the necessary attendants and instruments. Physics want £12,500 for buildings and laboratory, and besides this about £1,000 a year is needed to keep the laboratory equipped with the best and most modern apparatus, and for the services of an additional staff. Sums of £10,000 are called for in other departments,—in one case for additional laboratory accommodation for physiological study; in another for entomology in its relation to tropical medicine; in a third for the enlargement of the engineering workshops; in a fourth to complete the buildings in the School of Agriculture and Forestry. These are the chief heads of immediate capital expenditure, but they leave the expenditure out of income in the way of salaries wholly unprovided for. Even where there are teachers, they are inadequately paid, and the University is only able to set aside £200 a year towards a pension fund for its forty-four Professors,—a fund in which the other teachers have no share. It may be thought, possibly, that large salaries are not needed at Cambridge. The post of a teacher is made sufficiently attractive by the charm of the subject, the associations of the place, and the congenial society in which the Professor passes his life. Mr. Gladstone, if our memory serves us, once used a similar argument in defence of low salaries at the British Museum. But whether this reasoning be good or bad in itself, it becomes quite inapplicable in view of the recent increase in the number of Universities and University posts, both in this country and in the United States. "If Cambridge is to retain the services of its most distinguished men"—this is the conclusion of the summary from which we have been quoting—"it is imperative that the income assured to them, both during and after the period of active work, should bear comparison with what they may obtain in similar positions elsewhere." A young man who is enthusiastic about his subject might put up with a very much smaller income than he might reasonably hope to make in some other profession if Cambridge were the only place in which he could find employment as a teacher. It is a different

matter when he has only to make his election between poverty at Cambridge and a sufficient income at some other University, the pleasure of devotion to his own special study being the same. More and more this is the shape in which the choice is presented to him, and more and more, we may be sure, will the consequent decision be unfavourable to the sustained eminence of the Cambridge teaching staff.

How are these wants to be met? The Duke of Devonshire contents himself with enumerating them. "In all," he says, "a capital sum of nearly one million and a half, apart from any question of a pension fund for Professors, might without extravagance be immediately expended on the equipment of, and in the provision of a staff for, the University." During the last seven years about £115,000 has been contributed in answer to a similar appeal from the Duke. But to raise this sum in seven years gives but a poor promise that something like fourteen times that amount will be raised now, and raised at once. It is plain that this new appeal, if it is to be effectual, must reach a new public and arouse a new enthusiasm. Unfortunately, education in England is a subject of constant controversy, but of very little and very intermittent interest. We do not as a nation much believe in it, and when we do our faith is apt to show itself in not very well chosen works. We spend vast sums upon elementary schools without in many cases having any clear idea of what they are meant to do or how far they carry out their supposed intention. We found scholarships in order to make a ladder between the elementary school and the University, but we do not stop to inquire what is happening to the University to which the ladder is to lead up. We go out into the highways and hedges to compel scholars to come into our schools, we talk about the wonderful advantage that education gives a nation in the commercial race, but we do little or nothing to keep the springs from which education flows in full and constant activity. Indeed, in a great number of instances the help we give is little better than wasted. Instead of making parents understand that it is to the advantage of a child to be educated, and that in laying out money for that purpose they are consulting the child's best interest and giving him what he has a right to look for at their hands, we take the whole burden off their shoulders, and make education appear as something which would not be worth their while to pay for but which may be accepted, not always very graciously, when it costs nothing. And meanwhile we neglect the higher education,—the education which most needs help, because it must be provided at a cost which more and more tends to exceed any contribution that can be looked for, whether from students or private benefactors. We would not leave the private benefactor out of the account. On the contrary, it would be well to encourage donations for special objects in every possible way. But when these had been exhausted, the State might well come in and provide a portion, at any rate, of the money demanded by the dull and more commonplace wants which need meeting quite as much, though they are not interesting enough to excite the imagination. The sum that we threw away when we abolished elementary-school fees would have given Cambridge all that the Duke of Devonshire asks for, and rendered a similar service to every other English University.—*The London Spectator*.

The World's Greatest Library.

BY WILLIAM SIDEBOTHAM.

It has been said that the Seven Wonders of the World are the Pyramids of Egypt, the hanging gardens of Babylon, the mausoleum of Artemisia, the temple of Diana at Ephesus, the colossus of Rhodes, the statue of Zeus by Phidias, and the Pharos of Alexandria. This dictum at the time it was made was undoubtedly true; but during the last hundred and fifty years, on the spot formerly occupied by the famous Montague House at Bloomsbury, London, there have gradually been gathered together antiquarian, literary and scientific collections which, although they do not possess the massive grandeur of the Pyramids or the exquisite beauty of design shown in some of the triumphs of past ages, are still as wonderful as any of these, illustrating as they do the history of the world from its very infancy. The building which contains these collections is the British Museum; and it is somewhat remarkable that a structure erected to accommodate collections showing the gradual growth of civilisation should stand on the grounds where in 1780 were encamped the troops which were to quell the Gordon riots, one of the centres of which was in Bloomsbury.

In this great building can be seen sculpture illustrating the history of Egypt from the time of the early Pharaohs—400. B. C.—an immense number of household articles, jewellery, vases, tablets of the dead, tools, etc., typifying the oppression of the children of Israel under Rameses II., right through the captivity together with the coffins of ancient priestesses, with inscriptions of prayers to the protecting gods, and the embalmed remains of the leading members of the numerous dynasties. Here, too, can be seen antiquities of Babylonia, Assyria, and ancient Greece and Rome recovered from the tombs, many of them in a most extraordinary state of preservation despite the fact that they carry us back to the time of Abraham; and, last but not least, there are fifty thousand volumes of manuscripts, including Latin and Greek papyri, found in the tombs of the ancient kings, containing the handwriting and seals of thousand years; while close by the report of the latest speech delivered by one of our leading statesmen may be read!

On the death of Sir Hans Sloane, the great physician and scientist, it was found that by his will his executors were empowered to offer the Parliament his fine library and the whole of his vast collections of antiquities and works of art for twenty thousand pounds—thirty thousand pounds less than it had cost him. The offer was accepted, and an act was passed in 1753 for 'the purchase of the museum or collections of Sir Hans Sloane, Bart., and of the Harleian collection of manuscripts, and procuring one general repository for the better reception and more convenient use of the said collections and of the Cottonian Library and additions thereto'. The money was raised by means of a public lottery, the amount being three hundred thousand pounds. This sum also included the cost of Montague House. There were one hundred thousand tickets issued of three pounds each. It was hoped that the funds thus obtained would be sufficient not only to meet the cost of extensions and repairs, but also to provide for the salaries of the officials. The collections, however, grew with such marvellous

rapidity that eventually additional land had to be obtained close to the museum at a cost of two hundred thousand pounds, and a separate museum for the natural history collection had to be erected at south Kensington.

When George IV. gave what is known as the King's Library to the nation—a library which cost one hundred and thirty thousand pounds, and which contain some of the greatest rarities in literature—it was decided to alter the whole character of the building. A separate library was erected to accommodate the sixty-three thousand volumes given by His Majesty; and in 1849 it was found necessary to erect the present magnificent reading-room. This reading-room contains one million two hundred and fifty thousand cubic feet of space; and at the time it was erected the surrounding libraries had an additional seven hundred and fifty thousand cubic feet. The building is constructed mainly of iron, with brick arches between the main ribs.

The library, which now contains between three million and four million volumes, is without exception the largest in the world, the only one, which approaches it in size being the *Bibliothèque Nationale*, Paris; and it is interesting to note that for the accommodation of this immense number of books upwards of forty-three miles of shelves are required!

For beauty of design, elegance of construction, and symmetry of form, there is no building in London which will bear comparison with the reading-room at the British Museum. In the centre is a platform, slightly raised, occupied by the Superintendent and his assistants. Round this platform, a few feet apart, are two rows of desks arranged in the form of a circle. The desks—the outer one has a circumference of nearly two hundred feet—are filled with large catalogues, and radiating from the desks like the spokes of a great wheel are the long tables provided for the readers. By an ingenious method, the tables are divided in the centre by a sort of partition which prevents students from being disturbed by the readers on the other side. On the top of the partition a number of electric incandescent lamps are fixed at intervals, and just underneath these are shelves and book-rests, which, when not in use, fit flush with the partition. Each seat along the tables has a letter and number, and the reader, (who is provided with pen, ink, blotting paper, and chair), on filling up a form when making the application for a book, notifies the place where he is sitting, and the book is in due course brought to him by an attendant.

The whole of the wall-space right round the room to the bottom of the dome is filled with the lore of many centuries. Within the reach of the readers on the ground-floor there are twenty thousand works of reference, classified in their various subjects, and in regard to these no application to the Superintendent is necessary; while in the two galleries above there are fifty thousand additional volumes. The dome has a singularly dignified appearance. At the bottom there is a massive cornice and the inner surface of the dome is divided into two compartments, and these again are subdivided by beautiful ornamental panels. The light is admitted through large windows which rise perpendicularly from the cornice, and by this arrangement ample opportunity is afforded owing to the curvature of the dome, for a magnificent scheme of decoration.

The interior of the reading room is one of the sights of London. Here for-gather great historians, prominent politicians, and savants—men whose works have obtained a world-wide popularity. Among the 'readers' in the past have been Guizot, Thiers, Louis Napoleon, Louis-Philippe, Cavour, Garibaldi, Macaulay Blackstone, Dr. Johnson, the father of Disraeli, David Hume, the poet Gray, Carlyle, Thackeray, Dickens, Lytton, Huxley, and, coming to later times, Gladstone, Lecky, Gardiner; Wolseley, Goschen, Dilke, Morley, Lubbock (now Lord Avebury) and a host of others. From midday up to about five P.M., which is the busiest time of the day, the room is generally well filled; and as there is accommodation for upwards of four hundred and fifty persons, the scene is a very animated one. So many applications are made for books during the afternoon that boys are specially 'told off' to bring the volumes on barrows, which in appearance resemble those used by porters for luggage at railway stations.

In order to obtain a book the reader has to fill up a form giving the name of the author and title of the work, the press-mark (indicating the locality where the volume is to be found), and the date and place of publication. These particulars are obtained from the huge catalogues, and the reader is responsible for all the books that he borrows so long as the form he has filled up and handed in to the attendants remains uncanceled. There is no limit as to the number of books a reader may borrow; but in order to facilitate the work it is usual to fill up a fresh form for every volume he wishes to obtain. Special rooms are set apart for those wishing to see rare books or priceless manuscripts.

By the courtesy of Mr. G. K. Fortescue, who is the head of the important department of printed books, I was recently granted the privilege of inspecting the series of galleries behind the reading-room where the major portion of the vast collection is kept. What a perfect maze it is! The reading-room as before stated, is in the centre of a large quadrangle, and in the four corners of the parallelogram unoccupied by the circle of the room a remarkable and ingenious series of galleries is built, affording accommodation for millions of books. To avoid risk of fire, these galleries have skylights, no artificial illumination being allowed. They resemble huge cages, for the floors are of open iron work, which admit the light through several stories. The only drawback to this arrangement—a drawback which cannot be avoided—is that during the fogs which are so prevalent in London during the winter months no books from these galleries can be obtained. Despite the extensive accommodation which was provided, owing to the Copyright Act—under which a copy of every book and paper published in the United Kingdom has to be sent to the British Museum—the number of volumes increased to such gigantic proportions that a special contrivance has to be resorted to in order to provide room for them. This takes the form of sliding-presses, consisting of a frame work fitted with shelves open back and front so as to receive volumes on each side. These shelves are suspended on girders, and, running smoothly on wheels, can be easily moved backwards and forwards. They supplement the standard presses and by this means the books in many places are six deep! All these presses are made of iron plates the shelves being covered with leather.

Many of the choicest books, which the library contains are bequeathed to the nation by private donors; others have from time to time been purchased by the trustees out of the grants made annually to the British Museum by Parliament. It is impossible to form an accurate estimate as to the value of some of the choicest books, for many in the library are the only known copies; but several have previously been sold at prices approaching five thousand pounds each. Probably the gem of the collection is the Mazarin Bible, which was printed in Latin at Mentz about the year 1455. This is the earliest complete printed book known. *The Dictes or Sayings of the Philosophers*, which was translated from the French by Anthony Wyderville, Earl Rivers, and printed by William Caxton at Westminster in 1477, is the first volume known with certainty to have been printed in England. Other specimens of the earliest productions of the printing-press in England include *The game and playe of the cheese*, *The book of Tales of cauntyrburye* and the English version of *Æsop's Fables*. Among the numerous old copies of the Scriptures and religious works are Martin Luther's translation of the Bible, and Myles Coverdale's Bible dated 1530; the New Testament which belonged to Anne Boleyn which procured for Henry VIII, from Pope Leo X, the title of, 'Defender of the Faith,' ever since borne by the British sovereigns; the *lives of the Archbishops of Canterbury*, which was presented to Queen Elizabeth by its author, Archbishop Parker, the *boden Alexandrinus*, an ancient Greek copy of the scriptures suppose to have been executed by Zheela, a lady of Alexandria, in the fourth or fifth century, and presented by Cyril Lucar, the Patriarch of Constantinople to Charles I. The last named is one of the two most ancient copies of the Scriptures in existence.

The manuscripts in the British Museum form the finest collection in the world. Among the most interesting are 'the Recognitions' of Clement of Rome in Syriae, dated about 411; the English version of Wycliffe's Bible written towards the close of the fourteenth century; the orations of Xyperides, Homer, Aristotle, etc., and the 'Bull of Pope Innocent III, whereby he receives in fee the Kingdom of England, given to the Roman Church by virtue of a Charter confirmed by the Golden Seal of King John, and takes it into his Apostolic protection: given at St. Peter's, II Kalends of May A. D. 1214, and of the Pontificate of Pope Innocent the seventeenth.

It would be impossible, owing to the exigencies of space, to mention even a small proportion of the historical deeds which are to be seen in the library; suffice it to say that they include an ancient copy of the famous Magna Charta—the original copy is no longer in existence—granted by King John, and the charter granted by William the Conqueror for the foundation of Battle Abbey in Sussex after the battle of Hastings in 1066.

Reference has already been made to the Copyright Act of 1842, under which the museum is entitled to a gratuitous copy of every printed book, newspaper, or document published in the United Kingdom; and it is this provision which has contributed largely to the tremendous growth of the library—a growth which has for a considerable time occupied the serious attention of the trustees, for it soon became apparent that unless further accommodation could be provided, especially for the newspapers, all the available

space would be filled. We have seen the ingenious method of hanging-presses, by which a vast collection of additional books can be stored; and, as showing the stupendous growth in the number of volumes, it may be pointed out that in 1753 the library started with about fifty thousand books, in 1821 the number had only reached one hundred and sixteen thousand; in 1838 it was two hundred and thirty-five thousand; twenty years later it had reached five hundred and fifty thousand; while in 1896 there were one million seven hundred and fifty thousand volumes, not counting a single sheet or parts of works accumulating. Since then the growth has been much more rapid, and it is estimated that there are now about three million five hundred thousand volumes in the library. The work of arranging this collection is a stupendous undertaking; for each book has to be classified, and the press-mark indicating its locality has to be affixed on the back. According to the latest parliamentary return the total number of these press-marks have been altered in consequence of changes and re-arrangements, nearly thirty-one thousand labels have been fixed to books and volumes of newspapers, and one hundred and fifteen thousand four hundred and ninety seven obliterated labels have been renewed. There is a corresponding amount of work to be done in cataloguing. A large staff is engaged in the binding and repairing of books at the museum. The number of volumes and sets of pamphlets sent to be bound in the course of last year was eleven thousand nine hundred and eight-five including three thousand three hundred and twenty-eight volumes of newspapers; while over twenty-five thousand books have been repaired.

The number of newspapers published in the United Kingdom received under the provisions of the Copyright Act during the year was three thousand two hundred and sixty-one, comprising two hundred and twenty one thousand two hundred and sixty-nine single numbers; in addition to which large numbers of colonial and foreign newspapers, together with broadsides, parliamentary papers, etc., have either been presented or purchased.

With regard to the newspapers, it was calculated in 1882 that the space available at the museum would be sufficient for thirty-three years; but since that time there has been such an enormous accumulation that the authorities have tried several means to cope with the pressure. Sometime ago additional storage-room was provided in the basement and the new buildings; but this has particularly been filled. The British newspapers in 1837 only occupied about forty presses, whereas now there are two and a quarter miles of presses; besides which accommodation has had to be provided for the colonial, American and foreign newspapers. Sometime ago land was obtained at Hendow, where a repository for storage of newspapers and other printed matter is now in course of construction; and it is believed that the extra accommodation which will thus be provided will be sufficient to meet the demands for a very considerable period.

The cost of the construction of the reading-room and the surrounding galleries was one hundred and fifty thousand pounds; and the expenditure on purchases alone for the museum up to 1875 was considerably over one million pounds. The Government has been very liberal in making large annual grants, sometimes amounting to upwards of one hundred thousand pounds, in order that

the collections should be of the most representative character; and it was owing to the generosity of the late Sir William Harcourt, when Chancellor of Exchequer in 1896, that the additional free-hold land, on which sixty-eight houses stood, was secured at a cost of two hundred thousand pounds to meet the growing needs of the museum. These houses have gradually been demolished, and when the whole of them shall have disappeared the authorities will possess a square plot of thirteen acres completely isolated by the surrounding roadways.

It is considered that this land will be sufficient to meet the requirements of the trustees for another century, but no one can prophesy with accuracy as to the growth of the museum even in the immediate future. In the past all such predictions have been completely falsified; but, in the words of Macaulay, the museum will remain 'the repository of such various and precious treasures of art, science and learning as were scarce ever assembled under a single roof'.

Chambers's Journal.

Notes.

We are glad to learn that His Excellency the Governor in Council has nominated the Hon'ble Mr. T. T. Logan, Acting Director of Public Instruction, as a Member of the Committee of Visitors of the Court of Wards' Institution at "Newington."

* *

* *

* *

MR. C. M. BARROW.

It was with great regret that we received the news of Mr. Barrow's death. He was a man of immense activity in all matters educational. At one time he was editor of this Journal, and shortly before his death he had started a paper of his own. He was the editor also of numerous text-books for use in schools. He will be greatly missed in Madras, and especially at Bishop Corrie's School of which he was the Headmaster. He had been in India for many years and his long experience of education in this country lent weight to his opinions and advice. His place will be hard to fill in the many posts which he occupied.

* *

* *

* *

As in the previous month, so in this there have been many prize-giving distributions at various schools and many interesting reports and speeches have been received. Summaries of some of these will be found elsewhere. Here, however, we would like to mention the tribute paid by His Excellency the Governor to Dr. Miller who has just gone home on leave. It was pleasant to read such appreciative comments and we are sure that all will wish Dr. Miller a speedy recovery from his illness.

* *

* *

* *

The Government of India have decided to give a scholarship of the annual value of £200 tenable at an English University. It is a matter of congratulation that this has been done, and we feel sure that great benefits will be the result. In Haidarabad the same has been done on a more liberal scale. Several appointments have been made to scholarships enabling students to proceed to

Europe or America, whilst others have been given scholarships tenable in India. This example is one which we hope will be imitated in other states.

**

**

**

In each of the three reports on education for Madras, Bombay and Bengal, the question of salaries is touched on. For example it is stated in the Bombay report in connection with European schools that "money is required not so much for buildings and equipment which are generally satisfactory, but to enable the managers of schools to employ teachers on a wage which will make them contented with their profession and incline them to adhere to it. Bombay is our great centre for European Education; but while the salaries of teachers remain unchanged, the expenses of living and the chances of more lucrative employment increase from year to year." Again "in village schools seven to ten rupees are not attracting as they did ten or fifteen years ago." The difficulty is to find the money. Public men are ready to admit and enlarge upon the importance of the teacher's profession but hitherto in few countries have sufficient inducements been given to lead good men to adopt it. It is notorious that the teacher's profession is generally entered as a last resort in India. It is even occasionally recruited from failures in other professions. It is impossible to remedy this state of things so long as the pay and prospects of the ordinary teacher are so unsatisfactory. Where is the money to come from? If free Primary education is introduced it will become more difficult than ever to improve the teacher's lot. We shall then have a greater amount of education, but it may be doubted whether its quality will be improved.

**

**

**

In the Madras report two points of interest escaped us. One is the increase in the number of female graduates, both European and Native. In all three reports the Directors—especially in Bengal—speak hopefully of the future of female education and believe that there will be a great advance in this respect in the near future. The other point is the great increase in the number of Educational Associations. These are undoubtedly of great value. They lead to the interchange of ideas; and the power of expression and of speaking without nervousness before others is developed. We believe that these Associations originated at the Teachers' College largely on Mr. Hall's initiative and the increase in their numbers from 151 to 236 is a matter of congratulation.

**

**

**

As regards field sports all the reports allude to the want of grounds and the lack of funds for athletic apparatus. The want of grounds is very generally felt, but we believe that much more might be done to foster a love of games if the staffs took a more active part in them and sympathised with the boys in their efforts. It is the exception, not the rule to find a member of a school staff on the ground after school hours; and we fear that little improvement can be hoped for until the staffs and parents too are brought to believe more in the value of games.

**

**

**

Anent the need for sinking sectarian differences and working in unity, Mr. W. BELL, C.I.E., Director of Public Instruction in the Punjab, recently remarked of the Islamia College, Lahore, as follows:—"One of the great evils of the present day is the difference between parties. You quarrel on pice and lose rupees, you quarrel on rupees and lose ten rupees notes, you quarrel on ten rupee notes and lose twenty rupee notes. Quarrel will destroy everything. I hope you will always go to the root of the matter and as long as you are able to help the cause of true education you will not allow personal matters to hinder your progress."

**

**

**

With a view to obviate the necessity of frequent transfers in the staffs of the Arts colleges maintained by Government, the Government of India have, on the recommendation of the local Government, sanctioned the 'Collegiate Branch of the Subordinate Educational Service' with effect from 1st April 1907. While under the old scheme an officer had in some cases to be transferred from one College to another when his turn came for promotion, under the new scheme an officer may remain in the same institution and have his increase of salary which has now become personal. The new service consists of three officers on Rs. 175, five on Rs. 150, five on Rs. 125 and eight on Rs. 100. Eight of these officers have been appointed to the Presidency College, six to Rajahmundry College, five to Kumbakonam College and two to Mangalore College.

**

**

**

PETITION AGAINST THE REMOVAL OF THE PRESIDENCY COLLEGE, CALCUTTA.

The Bengal Landholders' Association has addressed the local Government against the proposed removal of the Presidency College. While recognising that the College is in need of development, the Landholders urge the value of the present central situation and the additional expense to the students which, they allege, would result from its transfer and its transformation into a residential College.

**

**

**

The new College for the department of Agriculture in Burma will be situated in Mandalay and will have branches in various other parts of the Province. A site has been selected outside the town. The situation is a good one, a correspondent writes, "for there is ample ground for expansion in the event, as is anticipated, of tracts of country being taken up in the vicinity for Experimental Farms and enclosures for live-stock. A staff of experts has been appointed. It is probable that the work of construction will commence at an early date."

**

**

**

ALIGARH COLLEGE.

Mr. Archbold, Principal of the Aligarh College, has sent the following letter to Nawab Mumtaz-ud-doula Mahomed Faiyazali Khan Bahadur, President of the College Trustees:—

"My dear Nawab Sahib.—I have just learned what I did not know before that a definite assurance was given to the students of the College by the Honorary Secretary that if they complied quietly with the orders regarding Gholam Husain and offered an unconditional apology the conduct of those who excited the other students would be overlooked. I need hardly say had I known that such a promise had been made, I would have respected it. I am also sincerely anxious to do anything that may end the unhappy troubles with which this College has recently been visited. I am therefore glad to tell you I have decided that in view of the abovementioned promise that the six students who were ordered to leave the College will be received back again and I hope this will mark a beginning of happier times."

* *

* *

* *

A meeting of the past and present students of the College of Engineering was held on 1st April to concert measures to raise a suitable memorial to Colonel H. D. Love, who is about to retire from service after having presided over the College for a quarter of century. Some of the members present spoke in very appreciative terms of the retiring Colonel's services, and it was resolved "to collect funds for a permanent memorial," to mark their "appreciation of Colonel Love's labours for the advancement of engineering education in this country and to express the deep regard and esteem which his sterling qualities have inspired in his pupils." A strong and influential committee consisting of several engineers was appointed to carry out the objects of the meeting. The form that the memorial should take has not been announced to the public.

* *

* *

* *

THE ENGINEERING COLLEGE.

A RE-ORGANISATION SCHEME.

The Government of Madras have just issued the papers in connection with the proposal to re-organise the Madras Engineering College, though the Order itself is dated the 10th October, 1906. In the course of its Order the Government say :—

In Proceedings, No. 655, Educational, dated 3rd October, 1905, the Government passed orders on the report of the Committee appointed by their Order, No. 723, Educational, dated 12th December, 1904, to advise on the proposed extension and re-organisation of the College of Engineering, Madras. The recommendations of the Committee were generally approved, some with and others without modification, but a few points were remitted to the Committee for further consideration. The Committee submit the further remarks called for and in doing so they ask for a reconsideration of the orders passed in regard to certain points in which the Government did not accept their proposals. The Government now proceed to pass orders on the further report of the Committee.

The Committee originally recommended that the College should be removed from its present site at Chepauk, and the Government left the matter over for further consideration. The Committee again express the opinion that the College should be residential, that at the present site there is no room for expansion, and press for the removal of the College to a more suitable site.

The Government accept this opinion. They consider that the site of the Agricultural College at Saidapet which will be available after the completion of the new Agricultural Research Institute at Coimbatore will be the most suitable place for the College. Orders will issue in the Public Works Department for the deputation of an officer to ascertain what use can be made of the existing buildings at Saidapet and to prepare plans and estimates for the new buildings.

The Committee originally recommended that the College year should consist of—(a) a first term from about the 15th of July to about the 10th of October, the last ten days of it being devoted to inspection tours; (b) a second term from about the 10th of October to about the end of April with a break of about nine days on account of the Christmas holidays and with a survey camp for about a month after the termination of the holidays; and (c) the long vacation from about the 1st of May till about the 15th of July.

The Government suggested a more equal distribution of the school year, under which the first term should last from 15th June to 15th October followed by an inspection tour of a fortnight, and the second term from 1st November to 31st March, inclusive of one month's survey camp. In view, however, of the further remarks now offered by the Committee and the practical difficulties likely to be involved, owing to climatic reasons, in an inspection tour during the latter half of October, their original recommendation is accepted.

In their original report the Committee stated that the syllabuses recommended by them were based on the assumption of a 25 hours lecture week exclusive of out-door work-shop and other morning attendances. They were then requested to consider whether more time should not be spent in the work-shop. They now state that they did not think it advisable to lay down any hard and fast rule as to the number of hours to be spent at lectures and at practical demonstrations, respectively. This view is accepted. Details will be arranged when the revised rules of the College come up for consideration.

The Committee originally proposed that there should be a Board of Visitors for the College composed as follows :—

The Director of Public Instruction, the two Chief Engineers, the Consulting Engineer for Railways, the Chief Engineer, Madras Railway, the Chief Engineer, South Indian Railway, the President Faculty of Engineering, Madras University, the Chairman of the Board of Examiners, the Surgeon-General, the Secretary to Government, Educational Department, any former Principals, Professors or Officers of the Public Works Department up to four in number with the Principal of the College, *ex-officio* Member and Secretary.

The Government considered that the Board would be unnecessary if the College remained under the Director of Public Instruction. The Committee, however, are of the opinion that a Board is necessary in any case. The Government agree that a Board constituted merely as an Advisory Board might be useful in the case of a specialised institution like the College of Engineering to advise the Director of Public Instruction or the Government. If the College remains under the control of the Educational Department, such a Board may consist of the following :—

President.—The Chief Engineer Public Works Department.

Members.—The Chief Engineer, Madras Railway, the Chief Engineer, Port Trust, the President, Faculty of Engineering, Madras University, or other Member nominated by the Syndicate if the President of the Faculty is the Chief Engineer or is the Principal of the College.

Secretary,—The Principal of the College of Engineering.

If the College is removed from the control of the Director of Public Instruction, further orders will issue as to the continuance and constitution of the Board.

The Director will be requested to submit proposals for the introduction of the scheme of re-organisation as now approved in so far as it can be applied to the College on its present status and also proposals for the revision of the rules of the College.

* * * * *

Speaking on the subject of the need of maintaining the best traditions of a school by its *alumni*, Mr. Topham made the following pertinent remarks at the Prize Distribution of the Noble College, Masulipatam.

“Your college has now attained a very respectable degree of antiquity as an educational institution in India. It has been the desire, no doubt, of your managers to work up to the best traditions of English Public School life. The possession of a great tradition is a great pride and a great responsibility. The first generation of boys and masters had the task of creating it, while the present has that of maintaining, improving and transmitting it to the next. It is difficult perhaps to overstate the value of a noble tradition to a school. It connotes all the difference between education in the true sense of the term and mere instruction. It is one of the main agencies of setting a standard of right thinking in a school and thus forming the character of the boys. It is a great pity that a larger number of educated boys do not go into trade, or, to put the matter in another way, that the trading classes do not, to a greater extent than they do, avail themselves of the opportunities for higher education for their boys. Possibly some of the boys now leaving hope to go in for Engineering. This career offers an ever widening field of employment with the extension of public work and the spread of industrialism on Western lines all over India. From my own experience and observation I would emphatically say this to all boys who want to take up Engineering: ‘Do not think a competent knowledge of Engineering can be picked up on works.’ In these days of technical education it daily becomes more essential to have a good technical grounding. On my first railway construction in India I had not a single subordinate that could use a theodolite. Now I have hardly one that cannot. In Engineering as in other professions there are no short cuts but the routine of a sound technical education as a basis must be gone through.”

* * * * *

So great is His Excellency Sir Arthur Lawley's interest in education that in the midst of his onerous duties as the head of the administration in Southern India he finds time to preside at prize distributions and offer words of advice to the student population. Since the publication of our last issue in which we gave an account of some of his speeches, Sir Arthur presided at the Christian

College, Pachaiyappa's College and the S. P. G. High School. We give below a summary of his speeches.

Sir Arthur Lawley at the Madras Christian College.

I should like to say a word about the Report which Mr. Skinner has read to us. He has told us of the past, the present and the future; and taking them in the reverse order, I should like to say that I have seen for myself plans and schemes for the enlargement and betterment of your College, and though at the present time it is obviously impossible for me to say what Government may be able to do to help you to achieve that object, yet I can only say that, personally I hope that these schemes will be carried into effect. Now I think the Report taken as a whole must be very satisfactory to those who have the welfare of the institution at heart. It tells us of progress maintained and of works successfully carried out in the past. It tells us of successes achieved by the pupils of the College, and it speaks, as I said just now, of further improvement of the premises of the College. It breathes, it seems to me, a spirit of optimism. But, unluckily, there is a reverse side to every medal. The Report has also spoken of those who have been called away from their labours to pass into the dark valley. Death has indeed been busy in the ranks of the staff of this College and I should like to assure you, Sir, how deeply I sympathise with the Council in the great losses that they have sustained. There is another tragic note struck in the Report. There is a face, a familiar and well-beloved face, which I am certain that every one would fain have seen here this afternoon. Dr. Miller has gone home for, I hope, only a short time. He has gone home in order to see if some cure may not be effected for the sad calamity which has fallen upon him, and which he has borne with characteristic courage and fortitude. I am certain that there is no one here, that there is not one educated man in Madras, nor even in the whole of Southern India, whose heart does not go out to him at this moment with the deepest and sincerest sympathy. We hope, I know, that he will soon return refreshed, strengthened and invigorated, to carry on the labour of love which he has carried on so splendidly from year to year.

Now, my young friends, if I may say a word to you, I will do so. I want, if I can—I always try on occasions such as this—to say something which, perhaps, at least one of the boys whom I address may carry away with him. I am going this afternoon to ask you a favour. I want you if you will, to read and master the history of this College. “Oh,” you will probably say. “We know all about it, have read about it.” So much the better. It will make the task of reading it again easier; and I want you to read it with only one thought in view, and that is, that you may realise how great, how almost magical, the power of one individual personality can be. I want you to see what part Dr. Miller has played in this institution and to see if a study of his life and work will not help you in the days that are to come. Do you realise what this school was 42 years ago? Do you realise that then Dr. Miller was in Madras, the only single representative of the Free Church of Scotland, that he was then, what we in England look upon, only a boy of 24, that he was face to face with straitened finances, with inefficient staff, with inadequate buildings for the school; and he faced these difficulties alone. Think of the courage of that man, as I say,

a mere boy and as you turn the pages of the history of your school you will see the same example shown you over and over again, of courage, of determination to do his duty, to be daunted by no difficulties and to conquer in the end. Then again, a little later, we are carried to the moment when this school became amalgamated, what was the Free Church institution of those days became amalgamated with another Church. Some men, many I know, would not have the breadth of view, freedom from prejudice to entertain an idea of an amalgamation such as this; freedom from prejudice and breadth of view which would enable a man to co-operate with others for the public weal. It would have been easy enough for Dr. Miller to have said, "No, this belongs to one particular Church, to one particular sect." Not a bit of it. He was broad enough in his mind and heart to take in others and to teach us the lesson of co-operation. I do not think that it is ever kind to a generous hearted man to come in his absence to recite his largesses and gifts. I will ask you to read for yourselves and to learn what generosity this man has shown for you. He has given freely of his purse; he has given far more than that; he has given himself with total self-abnegation, self-abandonment and self-denial for you, my young friends. And I say there is a pattern which we all may follow. Dr. Miller is known throughout India as a great educationist. Was his scheme confined merely to an interview of an hour or so with the pupils of his class? When the class was over, did he close the door and forget all about them? No, not a bit. He made his life half the life of the boys, of whom he had numbers whom he loved. His was the doctrine of sympathy and love. I say to you boys, who have got to go out into the world and play your part in carrying on the great development of this country, if you have not sympathy, if you have not the desire to move with another man, be he either of your own race or not, be he either of your own creed or not, then I say that you will fail. Without sympathy you will fail, fail hopelessly. And surely, if you study, as I ask you to, the history of your College and the part which Dr. Miller has played, may not we all, you and I, learn something? I hope so. May we not strive to emulate him? I am not so vain, nor do I presume are many, if any, of you, as to think that we can attain to the same level of intellect as he; but surely can we not attempt to follow his footsteps in regard to the qualities which I have enumerated? Can we not gird ourselves up to face with courage the difficulties which must lie before us all? Will we not widen the horizon of our thought, will we not take a broader view of life, that we may work with others for the good of others; will we not open our hearts a little to men of other races, other sects and other creeds; will we not give something of ourselves for other men? I hope we may. I hope so. Believe me, if we do, I think we shall find that these queries will help us one and all over the rough places in life and that they will bring to men peace and happy life. Yes, my young friends, that is the favor will ask of you this afternoon. Make of this noble character a patient study. Will you realise intimately its noble qualities and strive with all the power that in you lies to follow his example?

Sir Arthur Lawley at Pachaiyappa's College.

He desired to thank them very much indeed for the cordial welcome which they had extended to him on his arrival there. He wished to congratulate

those to whom it had been his pleasure to distribute prizes. He observed the prize-winners were all sitting in the front rows of the hall and he hoped some of those in the back rows would have moved up by next year. They had heard the Report on the working of the College and school, and he was glad to note that the Report breathed the spirit of progress. Their numbers had gone up, their buildings were about to be extended and the quality of their work was reported to be good. Mention was made in the Reports of his brother's name and the kindly memory in which he was held. He hoped that in years to come his name would also be remembered as a friend of that institution. In the first place their institution was said to have for its object the expansion of national education and the spread of enlightenment. The day had gone by when the attitude of the Governor and the Government towards the education of Indians was a debatable point. In these days there could be no doubt in the minds of the people seeing what had been done in the way of education as to what the desire of Government might be in this matter. Just now the question of education was attracting great attention, the more so in this Presidency, where it was in a state of transition. The new Grant-in-Aid Code and the new Regulations had come in for a good deal of criticism. He had heard them spoken of as likely to prove disastrous in their results. But he had no such fear. The Government had introduced the new Grant-in-Aid Code and the new Regulations because it was believed that it was sound policy to differentiate between elementary education and secondary education. They wanted to improve the quality of both and they were prepared to face the fact that some of the schools might have to be closed. He was not certain that it was an unmixed evil, because when they came to analyse the results it was found that the quality of the education given by many of the secondary schools was by no means what it ought to be. They knew that boys went up for the Matriculation examination in thousands and came away plucked in thousands. There must be something wrong in the system. He noticed that the Trustees of Pachaiyappa's Charities had their apprehensions in regard to the introduction of the new Regulations. The Government had over and over again said that the measure was a tentative one and its immediate application was not insisted upon. The Government would be prepared to introduce any modifications so long as they did not result in any lowering of the standard of efficiency. He next wished to say a few words to the boys as to the man whose name was associated with the institution. He wished that Pachaiyappa could stand as he himself did that evening in that magnificent hall and could look round him on the happy faces of young men who, thanks to him, were about to make a good start in life. Pachaiyappa had been a remarkable man. He was a self-made man who, by his own character and determination, required great wealth. At the same time he had acquired what was of greater value, namely the respect and affection of his fellow citizens. He had been more remarkable, in this, that he made a will which showed that he was a man who looked ahead of his time. In those days they thought that making a will was the simplest thing. In those days it was a unique action in the line that Pachaiyappa took, and it showed that he was a man of very remarkable character and unique viewpoint. His Excellency had been associated for many years with a great personal friend of his, a great Englishman, Cecil Rhodes. Cecil Rhodes was in and was a self-made man. He did not mean to say that Rhodes started with

nothing at all. He went to South Africa as quite a young man and there by his independence of thought and by his character, he amassed a great fortune: but more than that, he was ahead of his time. He was a great Imperialist, a great patriot and a true citizen. If it had not been for Rhodes, in the scramble for territory in South Africa, a great piece of territory which now belonged, in spite of themselves, to England, would have fallen to some other nation. He was ahead of his time in that he started a scheme which was still looked upon as rather wild, to run a railway line from the Cape to Cairo, because he had detected in railways a great civilising influence and an influence which bound together the various states and territories of South Africa, and the men of his race. Pachaiyappa made a remarkable will, but it was not more remarkable than was that of Cecil Rhodes. Cecil Rhodes when he died left a very remarkable will. He arranged for all time that a number of men should have the opportunity of a University career at Oxford, men from Canada, from America, South Africa, Australia, New Zealand and practically from all parts of the world over which the British flag floated. His idea was to do something which would knit together in the strongest possible way all men of the Anglo-Saxon race; and what was the medium which he chose? He chose the University of Oxford. In doing this he attributed a mighty influence to two things; in the first place to education and in the second place to the influence of a good College. The traditions of Oxford he looked to as a powerful element in combining together the sons of the Anglo-Saxon race. That was a very remarkable thing. It showed, as the action of the founder of this institution showed, that he was a man of very extraordinary character. His Excellency had said just then that he wished that Pachaiyappa could have stood on that platform and seen the extraordinary changes which had come over the country since his time, its railways, electricity, postal arrangements, commerce, in fact, progress everywhere, and in education too. Everywhere new fields were opening out to the young men of the country. His Excellency in conclusion exhorted the young men to apply their thoughts to make the best use of the education which they were getting. He would ask them to think; not to come to school to cram their minds with facts, but to endeavour to learn the meaning of facts and to think of what was going on all around them to think above all what they owed to their country, and then what they could do for her as true and loyal citizens.

His Excellency at the S. P. G. High School.

Sir Arthur in paying a graceful tribute to the unselfish labours of the Missionaries said that they had gone to work amongst the semi-barbarous people of Transvaal before he went out to govern that province and that there existed between him and the Missionaries the most cordial relations. He referred in particular to the excellent work done by the S. P. G. Missionaries at Trichinopoly and said how greatly he was gratified to hear that the cloud that hung over the Trichinopoly College had luckily been dispelled. To the boys assembled then he offered a few words of advice. He told them that whether in the school-room or whether in religion, whether at their games they should bear in mind the motto which they had heard recited that afternoon. "Play up, Play up, and play the game." The game of life is hard fought, and if they

will only play up, his straight and not below the belt, they should never regret the motto to which he drew their attention.

* * *

* * *

* * *

At the Prize Distribution of the Doveton College, Major Bonham-Carter, R.E., delivered the following speech going fully into the important question of European Education in the Southern Presidency. "We have, as Mr. Hoare has pointed out, recently received a new Code for European Schools. We may, I think, (although perhaps Government have not gone so far as we should some of us wish that they should do in the direction of improving European education) take it that Government are anxious, as they have shown by their increased grants, to further the cause of European education. You will perhaps excuse me, therefore, if I endeavour this evening to make a few suggestions, some of them perhaps, palatable; some the reverse, on this aspect of the question.

You, Mr. Hoare, have told us that without any undue strain on the teachers the number of pupils at Doveton can be doubled, and that this is the case with almost every European school in South India. This can only be due to certain definite causes. The first may be, assuming that there are enough children, that parents either are not in a position to send them there to school or consider that the advantages to be derived from doing so are not sufficient to justify the necessary sacrifices, partly because the teaching is not good enough, and partly, because the prospects for educated children, boys in particular, do not appear to be materially better than those of half educated ones. It seems to me that we must first examine the question whether we can improve the education. We have to confess the fact that the European boy is not naturally addicted to book learning and, given an enervating climate and an indulgent home (for the proportion of children at boarding schools is comparatively few), it requires the very best possible teaching to stimulate the interest of the pupils and induce them to make the best use of their time. Now, can we, any of us who have to do with the management of European schools, say that on the whole the teaching in any way approaches the standard which I have suggested as desirable? We have many devoted teachers who give us and the children the very best of their abilities, but with the difficulty in obtaining them, for any man or woman who passes an examination (I had almost said who is willing to teach) is practically certain of employment, I think that I shall be making no reflection upon them if I say that they do not come up to the standard required. I have shown you above that the circumstances are such as to require the very best teaching, and hence, if the school is to be good, the career of a teacher must be such as to attract the best of our rising generation. Can we, any of us, pretend that this is so? A successful teacher must be a broadminded, well-educated individual, filled not with mere book learning but educated in the widest sense of the word. What are the prospects of such a man? I think that we shall most of us admit that they are totally and entirely inadequate. From this follow the constant difficulties that arise in securing teachers, and also the fact that those we do secure are not up to the standard that we require. This is the root of the whole problem, and until by some means or other the teaching profession is made as attractive as any other profession which a young man or a young woman can enter, it is hope-

less to expect any real improvement in European education. I am, to some extent, going over the ground which I covered some three years ago, but when the majority of the few occasions on which one speaks are gatherings of this nature it is somewhat difficult to avoid repeating oneself.

It seems to me that, to cure this, we must look to Government. Government must either put European schools in such a position that they can pay salaries adequate to secure the best teaching power, or, what appears to be better, they should recognise teachers in European schools as belonging to the Government Service and treat them as lent to the different schools. But we can hardly expect that Government will do anything of the kind broadcast, and the next thing we must consider is whether there are more schools than are required. The only school with which I am acquainted which is really useful is the Lawrence Asylum at Lovedale. I know that there are many difficulties in the course which I suggest, and naturally the very first question that Government would ask, if they were seriously prepared to entertain such a proposition, would be how many schools are required for the purpose of providing the necessary accommodation for the number of European pupils that require education in the Presidency. From the nature of things, this is a difficult question to answer, but if Mr. Hoare's assertion is correct (and I believe it is not far from the truth) that all schools are suffering from want of numbers (I allude to the schools which have classes for children above the Primary schools), then, unless the boys who ought to be at school are not being sent to school, there must be too many schools. It is no doubt a very difficult matter to reduce them. A sincere endeavour was, I believe, made by the Bishop of Madras to induce the schools in Bangalore to amalgamate retaining hostels for the different denominations and having one central teaching establishment. This was a place which was, it seems to me, a most favourable one for the experiment. I do not know the details but I understand the difficulties were found to be too great.

The question bristles with difficulties. It will be said:—If you group schools the children will not go so far away from their homes and you will be worse off than at present because the children will not go at all. But it seems to me that if we are to look to Government to improve the teaching we must face the fact that Government will consider what are the number of children who at present attend school and what teaching staff is required? How can this staff be most economically arranged for? I think the only possible answer is by some method of teaching centres such as I have suggested. Assuming that the teaching is thus improved we then come to the question of sufficient children, and here we must obviously look to the parents. There is no doubt, to my mind, that while the parents of the children whom we wish to educate are many of them poor and have difficulty in making the sacrifice necessary to educate their children which must involve sending them to boarding schools, they also do not realise the importance of the question. Government have expressed their readiness, in places in which there are no schools, to provide, if need be, the whole cost of the education of children. I am fully aware that this does not entirely meet the question, for, apart from education, it is necessary to provide for the outfit of a child going to a boarding school which is,

severe tax in addition. If this fact of the willingness of Government to assist were more widely advertised it is possible that more encouraging results would be obtained than hitherto. Government are, I fully believe, in earnest in the matter of European education, and it appears to me that if there were many applications for children to be educated from places where there are no schools the provision of hostels would follow.

Mr. Hoare referred to me as an employer of labour, and I believe that the fact that there are a considerable number of openings for partly educated boys to earn small salaries is a very great factor in preventing parents from endeavouring to secure for their children better educational qualifications. I can only say, however, that I know of no direction in which the importance of education in its effect on the lad's future prospects are greater than in the Railway service. It cannot be said too often that the uneducated Eurasian cannot compete with the Indian in manual labour. If he is to have a successful career it must be in the direction of supervision in a small or large way over an Indian staff. For this he is not qualified unless he is adequately educated, and given adequate education, it is, and always has been my firm belief that what is so often referred to as the Eurasian problem could be solved, and that it is the only real solution of that problem.

In the remarks I have offered I have dealt mainly with the question of schools from the point of view of those who are either engaged in teaching or have to provide education as Managers. I would most earnestly appeal to all parents to realise their responsibilities in regard to the education of their children and to appreciate the difficulties that those whose duty it is to carry on that education have to encounter. I would ask them to recognize that teachers and those administering schools are sharing with them in their parental duties and are deserving of the most loyal support that the parents can possibly give them. No small part of the difficulties that arise are due to the parents considering that they are better judges than the teachers whether, for instance, a pupil should be promoted or not. So far from supporting the teachers, they, at times, I may say, add to their difficulties by allowing the children to stay away from school on frivolous pretexts, and, being more than ready themselves, so far from supporting teachers, to criticise them to their children and really to act as if they looked upon the teachers as their natural enemies. No system of education can be sound unless the parents on their part not only make the sacrifices necessary to send their children to school, but also do their best to ensure by loyal co-operation with and support of the teachers and the school education in its widest sense that the children receive the fullest possible benefit of the education afforded.

EUROPEAN EDUCATION IN INDIA.

THE GOVERNMENT OF INDIA.

The following is the procedure to be observed in the selection of candidates for the Government of India Scholarship of £200 a year tenable at an English University:—

(i) Each local Government will be invited to nominate annually a candidate who has been for the preceding two years a pupil of a recognised school or college in India and who has passed the European High School examination or who is a graduate of one of the Indian Universities. The candidate must be not more than twenty-two years of age, of good physique and active habits, and must produce medical evidence of good health. Nominations should be submitted by the 31st March of each year, but as a special case the date up to which the recommendations of local Governments will be received during the current year is extended to the 1st June.

(ii) The Government of India will select from among the candidates nominated by local Governments the one who appears to them to be best fitted to hold the scholarship. In making the selection due regard will be paid to the claims of each Province to participate in its turn in the scheme.

The scholarship will entitle the holder to an allowance not exceeding £200 per annum, payable from the date of his arrival in England, and will be tenable for three or four years, as circumstances may require, at any University in the United Kingdom or, with the special sanction of the Government of India, at a foreign University. The candidate to whom the scholarship is awarded will be required to proceed to England within a reasonable period from the date of his selection, and to reside there for a period of three or four years, as the case may be, unless compelled to return sooner by ill-health. He will be provided with a free second class passage to England and also with a free return passage if he completes the full period of residence or is compelled by sickness to return within that period.

The scholar will, on arrival in England, be required to bind himself by a written engagement to submit to the following rules and to such other regulations as may from time to time be framed by His Majesty's Secretary of State for the guidance of scholars in England:—

(a) Every scholar shall, on reaching England, at once present himself to the Secretary, Judicial and Public Department, at the India Office, and report his arrival in writing.

(b) Every scholar shall, without any unnecessary delay, inform the Secretary of State to which University or College he is about to proceed, and shall at once take steps to enter himself thereat.

(c) Every scholar shall, at the end of each term of residence at a University, submit to the Secretary of State a certificate from the proper University or College authority, showing that his residence, conduct, and progress in study have been satisfactory during the term.

(d) Every scholar shall at all times obey such instructions as he may receive from the Secretary of State.

(e) Subject to a due compliance with the above conditions, the allowance, at the rate of £200 a year for three years, or four years if so determined will be paid quarterly, in advance, by the India Office, commencing from the date of the scholar's reporting his arrival in England.

(f) Every scholar will forfeit his scholarship who, not being disabled by illness or prevented by any other cause which the Secretary of State may consider sufficient, fails to complete the required terms of residence at a University or who is guilty of misconduct, persistent idleness or disregard of the orders of the Secretary of State. If the scholarship be forfeited, the scholar will lose his claim to a free return passage to India, and will further become liable to refund the cost of his free passage to England.

(g) The scholar will be under the supervision and charge of the Political A. D. C. to the Secretary of State, through whom the necessary orders will be given, and to whom all reports and other communications respecting him should be sent.

**

**

**

SCHOOL BOARDS FOR THE MADRAS PRESIDENCY.

The Council of Aided Education have submitted a memorial to the Government of Madras suggesting the creation of a system of School Boards to supervise Primary Education. The arguments in favour of the suggested scheme are "that a Local School Board would be able to feel the needs of a locality better than departmental offices, and would also be able to check dereliction of duty and malpractices on the part of teachers more efficiently than the present inspecting officers with their infrequent visits can do; that Local Boards and Municipalities cannot give that attention to Primary education which its importance demands; and that the institution of School Boards would be one of the best ways of creating local interest in Primary education, as it would lead parents and the public generally to take an intelligent interest in the matter." The memorial seeks to lay stress on the fact that the cost of educating a pupil in an aided school is, according to the latest statistics, only Rs. 3-14, while in a Local Board school it is Rs. 5-3, and in a Government school it runs up to Rs 8-4, and that, therefore, the best agency for the dissemination education among the masses is not the Local Board but the teacher-manager. The chief objections to the proposal are that in villages men possessing sufficient public spirit and the requisite experience cannot be found to serve on the Boards and that the members of the Boards would not act in unison. The scheme is worth being tried in certain selected areas and if success results from the experiment, then the memorialists would have made out a strong case. We welcome the memorial as a sign of the keen interest that the public-spirited sons of India are taking in matters educational.

**

**

**

**

GOVERNMENT OF INDIA'S RESOLUTION ON FREE PRIMARY EDUCATION.

The Government of India have issued a lengthy circular letter to all Local Governments and Administrations regarding the question of abolishing fees in Primary schools which was referred to in the Hon'ble Mr. Baker's introduction to the Budget. The following are selected parts of the letter:—

"The Government of India have had under consideration the question of the abolition of fees in all Primary schools which are either under public manage-

ment or in receipt of grants from public funds, and they desire to be furnished with the views of Local Governments upon the subject. I am, therefore, directed to invite a full expression of opinion upon the policy of such a measure, the means of carrying it out and its cost. I am at the same time to explain the way in which the Governor-General in Council, as at present advised views the matter. The abolition of fees in Primary schools may be regarded both as a form of relief to certain classes of the community akin to the reduction of taxation and as an educational measure intended to remove an obstacle to the spread of Primary education. Viewed as a form of relief, it will, at the outset, principally affect the lower middle classes and the better-to-do cultivators, but it will, as time goes on, extend more and more to the poorer classes; it will also, at first, affect principally those Provinces where education on a fee-paying basis is most widely diffused; but as the standard of school attendance becomes more uniform throughout India its benefits will be more greatly felt. The policy of charging fees in Primary schools rested on the practice in England, but this argument must now be abandoned, in face of the fact that whatever weight may once have attached to the considerations mentioned, fees have since been abolished in Primary schools both in England and in an over-whelming majority of civilised countries.

The schools in which the abolition of fees is contemplated are Primary and Middle Vernacular schools for boys and for girls, whether managed by Government, by Municipal and local bodies, or by private persons, with the aid of grants from public funds. This definition of the scope of the measure demands some explanation. (a) It is not intended to include the Primary departments of Secondary schools. (b) It is not intended to propose the abolition of fees in Primary schools for Europeans. It appears to the Government of India that the need for such a measure, whether for the relief of parents or for the spread of education is not established. (c) It is proposed to abolish fees in Middle Vernacular schools, although these are at present included in the statistical returns under the heading of Secondary schools. The Government of India have examined the history of this classification (which does not exist in Bombay) and have come to the conclusion that it cannot be reconciled with the purpose for which these schools were founded and which they still fulfil. They are confirmed in this opinion by observing that the Government of Madras, as the result of independent consideration, have also decided in future to class these schools as elementary.

To sum up; the measure which the Government of India have under consideration is the abolition of fees in those public Vernacular schools which have seven standards (or less) above the infant class and which are under the management of Government, Municipal or Local Bodies or are in receipt of grants-in-aid. It will be applicable to all pupils in these schools without distinction. It will not extend to the Primary departments of the Secondary schools nor to European schools. Effect will be given to the proposal by instructing the Municipal and Local Bodies on receipt of suitable compensation to discontinue the charge of fees in schools under their management and by laying it down as a condition of the grant-of-aid to a Primary school of the kind defined above that no fees should be charged, a corresponding increase being at the same time made

in the amount of the grant-in-aid. If fees are abolished, it will be necessary for Government to be assured that the benefit really reaches the people for whom it is intended and that efficient measures will be taken to prevent teachers from exacting fees as before."

The Resolution closes by proposing the abolition of fees:—

"The Governor-General would desire also if possible to suggest that books and other school requisites should be supplied for the use of the children without charge. His Excellency desires to be informed whether this would be in accordance with the views of the Local Government and what would be its probable cost. The Governor-General has considered the possibility of abolishing fees gradually, instead of *per saltum*; if this were done the first step would presumably be taken with the Lower Primary schools. It appears, however, from the following consideration to be desirable, if it is financially possible, to proceed *per saltum*:—(1) The administrative measures required and the financial calculations involved in dealing with part of a school instead of the whole are more troublesome (2) Greater confidence can be felt that fees will really be discontinued if they are inadmissible in all the standards of a school. (3) If fees in the Lower Primary classes are abolished and those in the Upper Primary classes remain as at present, children will be discouraged from proceeding beyond the Lower Primary stage; if *pro rata* reductions are made in the Upper Primary classes it would involve arrangements too complicated for simple village schools.

If the replies of Local Governments are favourable and the probable cost is found to approximate to that which is here estimated, the Government of India, before directing any steps to be taken, would endeavour, with the sanction of the Secretary of State, to make, when circumstances permit, an assignment of funds for the immediate cost of the scheme. The further increase of the charge would probably be gradual and would, it is hoped, be within the power of the Local Government to meet from the growth of its assigned revenues. If in any case this should be found to be impossible, the Government of India will be prepared to consider the matter on its own merits. I am to request that you will now be good enough to favour the Government of India with your views upon the whole question, including any important points arising from it which the present letter may have omitted to treat. The Governor-General will be much obliged by an early reply.

APPROPOS this subject of Free Primary education, the following observations of the Honourable Mr. P. S. Sivaswami Aiyar will be read with much interest:—

In whatever direction we seek to bring about a reform, whether in the improvement of political life or in the improvement of social usages, or in the methods of industry or of agriculture, the most potent instrument for progress is education. The Government of this country have always been anxious to spread education among the people, but at no time has the solicitude of the Government been greater than at the present moment to advance education all along the line and it is our duty to make the best of the opportunities now offered.

The Government of India have now under consideration the question of the abolition of fees in all Primary Schools under public management or aided from public funds. There can be no doubt of the wisdom or the necessity of the step contemplated by the Government of India, and it is to be hoped that, with the loyal and hearty co-operation of the Provincial Governments, the Supreme Government will be able to obtain the sanction of the Secretary of State and take the scheme in hand during the current year. It can hardly be suggested that the provision made for Primary education is at all adequate, or that education even of the elementary sort has made satisfactory progress. That universal Primary education is the end to be aimed at is not likely to be disputed. But while the end cannot be achieved without making it compulsory, the provision of free education will go a long way towards the attainment of the object. It should be an essential part of the scheme not merely to abolish the fee in the existing schools but to open new schools in localities where there is no provision at present. The backward condition of Primary education is due not merely to the poverty of the lower classes, but also to the absence of schools near the villages and other circumstances. The mere removal of the fee will only be the removal of one of the obstacles to the spread of Primary education as pointed out by the Government of India.

Another reason that stands in the way of the spread of Primary education is that the curriculum is not adapted to the needs of the vast majority of those who attend Primary Schools and who cannot afford to carry their education beyond that stage. The course of studies now followed in all Primary Schools whether attached to Secondary Schools, or otherwise, is exactly the same. Under the new educational rules, a sharp line of demarcation has been drawn between Elementary Schools and Secondary Schools with the object, it is believed, of differentiating between the curriculum in the one and the curriculum in the other. No attempt has, however, yet been made to frame the courses of studies in accordance with the varying requirements of different localities. If Primary Schools are to become popular with the masses, the course of studies should be adjusted to the special requirements of the localities where the schools are situated. In Primary Schools situated in rural tracts, the course of study will be different from what may be suited to a school which serves an urban locality. In these schools, the children cannot pursue their studies further will not suit the children of the town. Again, the curriculum that is suited for the children of agricultural classes who can afford to give their sons a higher education. In schools where a special class is required is elasticity in the curriculum of the Primary Schools to meet the special wants of the localities and classes of people served by them.

In this connection, it may not be inappropriate to call your attention to the manner in which the Education Department has disposed of the Rs. 10,00,000 assigned to the Local Boards in the year 1905-06 in aid of Primary education. One would have thought that the best mode of utilising the grant would have been to open new schools in villages hitherto unprovided by renting the necessary buildings, to provide buildings for such of the existing schools as were in need of building accommodation, and raise the salaries of the teachers.

One of the first steps to be taken is the raising of the minimum salary of a Primary School teacher to a living wage. The scale of salaries recommended for adoption under the new Educational Rules fixes the minimum at Rs. 8 a month. It seems to me that the minimum should be fixed at Rs. 10 a month in rural Schools, and that in Primary Schools in towns where living is costly, the minimum should be somewhat higher.

When I suggested at the last Budget Meeting of the Legislative Council that power should be taken by Government to introduce compulsory education in a few select Municipalities by way of experiment, the Director of Public Instruction observed that he saw no reason why backward tracts should not be chosen instead of the more advanced and enlightened towns. The reason, however, lies on the surface. To ensure the success of the experiment, it is necessary that a large majority of the population should acquiesce in the measures taken and appreciate the advantages of education. The education of the masses must be recognised as one of the foremost duties of the Government and as an object entitled to very strong claims upon the revenues of the country. That some difficulties may be experienced on the first introduction of a system of compulsory instruction is not unlikely. But they ought not to discourage the Government or the people from making the experiment.

It may be worth while to observe that the framers of the District Municipalities Act seem to have contemplated a system of universal education. Under S. 117 Madras Act IV of 1884 the Municipal Council is bound, so far as the funds at their disposal may admit, to make provision for the instruction in schools of all children of school going age resident within the limits of the Municipality, for whose instruction provision shall not have been made.

At the recent meeting of the Legislative Council, after expressing thanks to the Government of India for their generosity in abolishing fees in primary schools, the Honourable Mr. Sivaswami Aiyar observed that the step had not been taken too soon, that the annual expenditure of Rs. 6 lakhs upon primary education had not yielded proportionately good results, but that fortunately there was to be a pause in the policy of providing school-buildings and that henceforth the Government would devote their attention to the schools in existence with a view to equip them better and also to providing new schools. He recommended the introduction of compulsory education and said that it was an experiment worth making in the city of Madras, and expressed the hope that Government would not hesitate to take the step on the score of extra cost.

The hope is entertained that aided schools will be brought up to the level of the efficiency of schools under public management. Whether unaided schools and aided schools which have no source of income but fees and grants will continue to exist is open to grave doubt. "The Government of India seem to think that it would be anomalous for a private manager to draw all the income of his school from public funds. The Education Commission did not consider it and certainly all the arguments that have been used in England in defence of voluntary schools may be used in India with still greater force. It may be

that private schools of this class ought ultimately to be absorbed in the Board School system, but the absorption should be gradual, and it should be quite clear that the public is getting full value for its money. The present certainly would appear to be a most unsuitable time for the sudden abolition of such schools," and let it be hoped that that is not contemplated.

* *

* *

* *

The Hon'ble Mr. P. S. Sivaswami Aiyar on Secondary Education.

A feeling of widespread alarm has been created in the minds of the public and of the Managers of Secondary Schools by the new Grant-in-Aid Code and the new Educational Rules. The rules relating to the conditions of Grant-in-Aid with regard to Secondary Schools and with regard to Second Grade Colleges are interpreted by the Department to mean that for the purpose of meeting the difference between the expenditure of the school and the fee-income calculated at the standard rates without making allowance for scholarships, the department will ordinarily grant a sum equal to the income guaranteed from endowments, subscriptions, donations and other private sources. According to this interpretation, a School or a Second Grade College which has no guaranteed income will not be entitled to any aid. There is a broad distinction between institutions managed by the Government or Local Boards or Municipalities and those under the management of private persons or Associations. Under the latest Educational Rules these two classes of public institutions are spoken of as institutions under Public Management and those under Private Management. The financial pedantry which has led the department to adopt this distinction between financed and aided institutions will have the disastrous effect of extinguishing many an institution which has done most useful work under the old regime. The institutions under native management are those which will suffer most under the new rule. Taking the figures for the Second Grade Colleges, I find that some of the most useful institutions in the Presidency have practically no guaranteed income at all. The Hindu College, Tinnevely, the Native College at Madura, the Coimbatore College, and the Victoria College, Palghat, have almost entirely been supported by school fees and the grants-in-aid. If the grant hitherto given to those institutions were stopped, they would be obliged to close their College department. I do not believe that this is a result which the Government foresaw or which they are likely to contemplate without regret if it is brought to their notice.

The majority of the Secondary Schools now in existence, have been paying their way with the income derived from fees and the grants-in-aid. Some of them are also likely to be self-supporting. But under the combined operation of the Grant-in-Aid Code and the new Educational Rules, it is to be feared that a great majority of the Secondary Schools under native management will have to be closed.

The idea that higher education is no concern of the State is a purely English and insular conception due to the accidents of English educational history. In other European countries, the obligation of the State to promote education in all its branches is fully recognised and the Governments of the

various countries devote large sums of money towards this object. As the finances of India will not permit the State to occupy the whole field of education, we are obliged to depend largely upon private effort and to take such steps as may be required to stimulate private effort. But this is not an argument against the maintenance of the Government school in each District. It is the opinion of many who are competent to judge, that the Zillah Schools formerly maintained by the Government were very much superior in efficiency to the existing High Schools. Any measure which will affect the stability of existing aided institutions or prevent the growth of Aided schools in localities now unprovided must be necessarily condemned. The Government of India have rightly interpreted public opinion when they say that there exists a wide-spread feeling among the educated classes of this country in favour of the improvement of Secondary Schools.

* *

* *

* *

MADRAS LEGISLATIVE COUNCIL—EDUCATIONAL TOPICS.

The Honourable Mr. M. Krishnan Nair in his speech at the meeting of the Legislative Council pointed out among other subjects what he considered would prove injurious to secondary education.

The effect of the new Grant-in aid Code and of the new Educational Rules would be to strike at the root of higher education. A large majority of the schools in the mufussal which are now maintained by fees and grants will have to be closed by reason of the alteration in the conditions of the award of grant. The more stringent rules of recognition would, he observed, prevent the spread of secondary education. Collegiate education will also suffer on account of the shrinkage of secondary education.

* *

* *

* *

The Honourable Mr. T. T. Logan, Acting Director of Public Instruction, observed, in reply to Mr. Krishnan Nair's fears, that many Managers were content to carry on their schools with the income from fees and the grant they got from Government, and saw no necessity for supplementing this from their own funds in order to increase the efficiency of the school.

So, in order to increase the expenditure and thereby the efficiency of the schools, it seemed desirable that Government grants should be regarded as a supplement to, rather than a substitute for the expenditure from the Managers' funds. "I have reason to believe," said the Hon'ble Mr. Logan, "that these rules have stimulated the managers to try and set their house in order and to enlist the practical sympathy of the public. It may be hoped that in course of time that state of things will be attained in this Presidency which is described as already existing in other Provinces of India in the Government of India's Resolution of 1904, when the provision and maintenance of a Secondary school will be common objects of liberality among all sections of the community.

The Hon'ble Mr. Krishnan Nair takes objection to Rules, 23, 28, 29 and 47. Rules 23 and 28 are attempts to supply schools with an adequate staff of better qualified men and thereby to effect a general and marked improvement in Secondary education. I hardly think, therefore, that these should be characterised as a retrograde step. Finding that the demand for qualified teachers was greater than the supply, I issued a circular so modifying the Rules as to make compliance therewith possible. In the course of time the demands will be met by the supply of teachers possessing the qualifications laid down in Rule 23. Rule 29 limits the strength of a class to 40. Here, again, is a distinct attempt to render efficient teaching possible, if the individual attention which is generally considered to be of the very greatest importance in teaching young boys is to be at all effective. I think you will agree that some limit should be prescribed as to the number in each class. The Hon'ble Mr. Krishnan Nair also takes objection to the grouping system. It was brought to my notice that a strict enforcement of Rule 28 would bring about the closure of many of the existing Lower Secondary schools, that is, schools with the Third Form as the highest. In order to avoid this, I issued a circular containing instructions as to the details of the system of grouping referred to by the Hon'ble Mr. Krishnan Nair. I will read a couple of paragraphs from this circular, which will, I think, explain the scheme:—

'Some of the advantages expected from the employment of graduate headmasters in incomplete schools may be obtained by the grouping of such schools around a central complete school, the head-master of which will exercise effective supervision over the schools of the group. This supervision will include superintendence of promotions and periodical examinations, guidance in the framing of courses of instruction in each subject and for each form, in the choice of books for the library and for class use, and of furniture and apparatus, in framing rules for discipline and attendance, and in such other respects as further experience may suggest. It is not necessary that all the schools in a group should be under the same management, but each member of the group should be easily accessible from the central school. It is further desirable that in the case of an incomplete school the central school selected should be that to which the bulk of the pupils proceed to continue their education, but this should not be interpreted so as to interfere with the liberty of the parents to send their children to any complete school which they may select.'

The Hon'ble Member next dealt with the question of the increase of salary to teachers. He pointed out that on the 30th March, 1906, there were in all 30,330 Elementary teachers; and the total cost of adding Re. 1 to the salary of each teacher would amount to Rs 4 lakhs yearly. As a matter of fact they had already the Presidency Training School for Mistresses where in the three Upper Secondary classes the aggregate strength was 60. Miss Carr, the Inspector of schools had made a move in that direction and had raised the salary of the Board Elementary School teachers, whose minimum salary was now while the minimum salary of a teacher in the Government Girl's School

Rs 10. He also pointed out in regard to the suggestion of the establishment of High Schools for caste Hindu girls, that it was reported in Egmore that the small attendance was attributable to the fact that Hindu girls were not allowed by their parents to continue at school after reaching the age of 10 or 11 years, and he agreed with Miss Carr in thinking that no very great improvement would be brought about by the transfer of the school to Triplicane or some such centre.

With reference to the views of the Hon'ble Mr. P. S. Sivaswami Aiyar regarding elasticity in the elementary curriculum and its adaptability to local requirements, the Hon'ble Mr. Logan said that that was also the opinion of the Educational Department. It is a great mistake, he said, to suppose that a boy marks time for a year by going from the fourth standard of an elementary school to the fourth class of a Secondary school, for the curriculum in the former would differ with the locality, whereas in the latter it would be an invariable scheme as the basis of University education.

* *

* *

* *

The Hon'ble Mr. G. S. Forbes dealt at length with the various criticisms of the new educational rules, etc. He said that the Hon'ble Mr. Logan had explained away a great many of the misapprehensions which had been entertained by some Hon'ble Members as to the working of the new Code. The demand for free Primary education would entail, of course, if it were to be carried out everywhere, the construction of thousands of school buildings in villages and the provision of masters. That Primary education should be free was admitted, but its universal adoption at the present moment was quite impracticable. Endeavours had been made, out of the educational grant of Rs. 6 lakhs, to construct school buildings wherever there were none, and complaints had been made that Dr. Bourne had been too enthusiastic in this. If any blame rested upon anyone, however, it was not upon Dr. Bourne but on the Taluk Boards. With reference to girls' schools, complaints had been made that they had suffered under the new Code. They were not mentioned in the Code, because they were expected to benefit by the enhancement of 25 per cent. which was allowed under it in special circumstances. There was no desire by Government to do anything to affect the popularity of girls' schools, and if proposals were made to place them on a better footing they would be sympathetically considered. The speaker next referred to the Salem College, which was said to have been badly treated because its profits had been diverted to purposes other than the College requirements. This complaint arose from an entire misconception. Even if the College had made legitimate profits there was no rule that they should be earmarked for the institution—if so, it must be necessarily self-supporting. This, however, was not the case, for, for some years, the College obtained large grants from Government which it had not earned. The profit of the College had gone into the Municipal coffers, and if it had not the Government would have had to help the Municipality.

Turning to the general Code and to the attack that had been made on the Rules, especially as to the blow that it was said their operation would deal to

Secondary education, the speaker said that the Hon'ble Mr. Logan had explained the position of Government. Honourable Members had pointed out three of the Rules, which, they said, would practically destroy Secondary schools. These were the requirements as to the qualifications of teachers, the rule about transfers and that about guaranteed income. The whole object of the Code was simply this: Secondary education, as it was being given, was entirely inefficient. It was turning out thousands of boys imperfectly educated, who went up to the University badly instructed, who failed in the examinations and who added to the ranks of discontented people. The only means of improving Secondary education was to place it on a foundation which would secure adequate instruction, and how that should be done was the problem Government had to face. Expert authorities, after a conference and long consultation with Government, came to a conclusion and had laid down certain principles. Whether these were correct or not remained to be seen, but in the opinion of the Government they were perfectly sound. These principles were, first, that the pupils at the schools should be taught by properly educated men and that they be properly supervised; also that the courses of instruction should lead on sound lines to the University. As things stood, Primary and Secondary education were mixed up together.

The Government was bound to see that Primary education was given a proper chance, and the only right way of doing this was to have it on vernacular lines. An enormous proportion of the pupils in Primary schools did not require or need any education founded on English and there was no necessity that Primary education should be on lines which led a boy up to the University. These were the main principles of the new Code; of course, it was possible that a great many Secondary schools would be closed, but there was no harm in that if they were now sending boys to the University examinations who failed by thousands. The object of the rule about guaranteed incomes was to prevent Government being burdened by what he might call venture schools. If such a rule had not been made any person could start a school and the ratepayers would have to support it, although it had no substantial backing behind it.

The speaker closed with a brief reference to the request that had been made for aid for Second-grade Colleges. The University grant, he said, was very small, the amount available for the improvement of Colleges being only Rs. 80,000 a year. The claims of the First-grade Colleges were very much in advance of that sum and he was afraid that little, if any, of the grant would be left for the second-grade institutions.

Works by B. Suryanarain Row, B.A., M.R.A.S., F.R.H.S.

For all purchasers of the following books to the value of Rs. 10, and upwards, a cash discount of 10 p. c., will be allowed. Those who buy all the works including past volumes of the Astrological Magazine, at one time will be allowed cash discount of 15 p. c.

- | | |
|---|--------|
| 1. Astrological Self-Instructor, in English, with Zodiacal Map and an elaborate scientific Introduction, 4th Edition, thoroughly recast, with large additions and exhaustive glossorial index. This contains 23 chapters while the 3rd Edition contained only 16 chapters | 1 8 0 |
| 2. Astrological Primer, in English with Zodiacal Map and an elaborate scientific Introduction, 2nd Edition thoroughly recast, with large additions and exhaustive glossorial index | 1 0 0 |
| 3. English Translation of <i>Jataka Chandrika</i> with Original Sanskrit Text in Devanagari, copious notes and illustrations, improved, 2nd Edition | 1 0 0 |
| 4. English Translation of <i>Sarwarthachintamani</i> , with the Original Sanskrit Text in Devanagari, or Telugu character, exhaustive, notes and numerous illustrations. The most splendid work on <i>Phalabhaga</i> Predictive Astrology or Horoscopy | 12 8 0 |
| Every possible combination is given here for man to know his own history past, present and the most desirable future | |
| 5. An Introduction to the Study of astrology in the light of modern and ancient physical sciences, 4th Edition, an excellent reading | 0 8 0 |
| "Never despise to hold a lamp in the darkness of fatuity." | |
| 6. The History of Vijayanagar, the grandest Hindu Empire of modern times—a most useful, instructive and interesting book Part I | 3 0 0 |
| 7. The History of Vijayanagar, Part II. In the Press | 3 0 0 |
| 8. Introduction to the same | 0 8 0 |
| 9. Swayam Jotirbodhini (Astrological Self-Instructor), in Telugu, 1st Edition | 1 0 0 |
| 10. Illustrative Horoscopes containing about 120 Horoscopes of all descriptions—most useful for readers of Astrological sciences. These contain valuable practical notes, by which the student of Astrology will be immensely benefitted in his studies | 1 0 0 |
| 11. A short History of Vijayanagar, an abstract of the big book, the best in the field | 1 0 0 |
| 12. The Astrological Mirror for good work, an indispensable guide for all men | 1 0 0 |
| 13. Revival of Astrology. 2nd Edition. An excellent reading | 0 8 0 |
| 14. The Astrological magazine, published during the first week of every month replete with information of the most useful kind and containing valuable scientific information on Astrology and other kindred subjects has many worthy contributors. Annual Subscription | 4 0 0 |
| Foreign 7 shillings, American 2 dollars order sent by V. P. P. Postage extra. | |

Apply Sharp to—

THE MANAGER,

OFFICE OF THE ASTROLOGICAL MAGAZINE,

Madras.

JUST PUBLISHED.
ORDER TO-DAY.

Fallon's
New

English-Hindustani Dictionary,
703 pages. Price Rs. 1-4.

An entirely New and up-to-date Edition of THE
ENGLISH-HINDUSTANI DICTIONARY. Produced
under the most Competent Editorship.

FULLY ILLUSTRATED.

Neatly bound in Cloth, Good Print, Readable Type,
Good Paper, Handy, Useful, and Reliable. A Marvel of
Cheapness.

THE
PUNJAB EDUCATIONAL JOURNAL,

EDITED BY
THE REV. A. H. HILDESLEY, M. A., F. P. U.

This Monthly Publication is devoted to the interests of all connected with
education in its many phases: commercial and technical, secondary and univer-
sity. It contains notions, notes, and news from everywhere on all topics or
importance to teachers and students. Its leading articles deal with educational
matters of passing or permanent interest, and its readers are kept abreast of all
matters connected in any way with the educational professions.

This journal circulates in all parts of India, Burma and Ceylon.
Subscription (including postage), Rs. 4-8 per annum. First Number sent
V. P. P. for amount of the year's subscription.

CONTENTS FOR SEPTEMBER 1906.

News and Notes.
The Punjab University—
A Suggestion.
Some Accessory Articles
of Diet.
The Times and Places of
Earthquakes.

Our London Letter.
Geographical Notes.
Punjab News.
Eastern Bengal and
Assam News.
Madras News.

Notes:—
British and Foreign.
Our Bookshelf.
The Study and the
classroom.
Notice.
Correspondence.

PUBLISHERS:

RAI SAHIB M. GULAB SINGH & SONS, LAHORE.

V. Kalyanaram Iyer & Co., Booksellers, Madras.

THE INDIAN

Journal of Education.

Vol. XLVII. }
Old Series. }

MAY 1907.

{ Vol. XV.
New Series. }

Criticism and Education.

"Much that looks like constructive advance in education at the present time is really the working of a critical and destructive movement washing away the more obstinate fragments of an obsolete system which in its time had a very real relation to the actual needs of certain kinds of life." I cannot recall the author of this remark. But it is one that raises a few points of interest. Criticism is at all times easier than construction, and education is very easy to criticize especially on the part of those who are unsuccessful and make education bear the brunt of all their mistakes. Reformers find it more congenial to criticize than to appreciate. But to be sound criticism must be constructive inasmuch as it must have an aim in view. Hence critics of education and reformers do well to remember that constructive advance is not necessarily the working of a destructive movement, but may rather involve a change in what exists and an adapting of the old to new conditions. No system can become totally obsolete and out of touch with the actual needs of life if it contains certain elements of permanence. It will be well therefore to consider what fundamental elements there are in education; and further, if the means of realising these elements of permanence are subjected to criticism, what criteria must be adopted when changes in the form and content of the curriculum are demanded. But before considering these points it will be best to determine at greater length the relation between criticism and construction.

In dealing with any movement, whether in the sphere of religion, history, or thought in general, it has to be remembered that construction and criticism may go, or rather should go, hand in hand. They are natural allies, and to regard them as mutually exclusive is to range them in a false opposition, which, though constantly exemplified, is by no means necessary. An essay by Mr. Lowes Dickinson suggests two examples which will make this clear. Ecclesiasticism, in the sense of religion as embodied in a church, is the natural support of the state. But, though it contributes to the stability of society, yet it has this fatal flaw, that, in so far as it affirms dogmati-

cally, just so far does it oppose criticism. An ecclesiastical system moves under the control of fixed ideas; and these, even if once they were good and true, fall inevitably out of touch with life by the mere lapse of time. Then, if its authority and sanctions be questioned by reason and criticism, there is inevitably discord, unless the church in itself is willing to adapt itself to the suggestions and reforms of its critics. If it be willing, then the working of a critical and destructive movement leads on to construction. Macaulay has pointed out that in this way the Roman Church used the Jesuits and avoided petrification; while, on the other hand, the Protestant Church too often disdains enthusiasm instead of using it: and the result instead of progress is sectarianism, indifference or atheism. In the first case criticism was constructive: in the second it is discord.

One more example is instructive. From one point of view the French Revolution was destructive, a grand and terrible holocaust, 'where everything that was sordid crept from its hiding place and walked the streets, jostling the rarest virtues. And over the carnival of all the disintegrated elements of human nature presided an opera-singer in the guise of the Goddess of Reason.' But if we concentrate our attention not on the delicate and factitious charm of the court, but on the cries of the Huguenot and the inarticulate misery of the starving peasantry, we can not only justify the Revolution, but also turning from Bossuet to Voltaire see the awakening of something new and something better.

The same holds good in education. Hence the working of a critical and destructive movement in education may be allied to constructive advance as well. It was not so in Prussia when Jena had to be avenged. Here the destructive movement swept the old order away. But it certainly was the case in England, where reform came from the Public schools themselves under the guiding hands of Arnold and Thring. The criticisms of education and the changes in the national system involved alterations in the organisation of the schools, but did not break their continuity. Thus criticism in England led to constructive advance. And the same seems, in part at any rate, true to-day. For consider the suggestions of modern educationalists. They would have teachers trained or teachers "made in Germany." The old methods of teaching French and Latin must go. Granted. But this involves a constructive advance. The existing schools can easily adopt the oral method or whatever method be the best, and can cease to drum into pupils' ears meaningless rules of Latin grammar, which they cannot understand, much less apply.

But it may be urged that the whole system is obsolete and out of touch with the real necessities of modern life, and therefore a reconsideration of

fundamentals is required. Then the criticism which would meet the case would imply the sweeping away of the whole system and would urge that the retention of the present methods is merely to tinker at a rotten hull. The evil, it might be said, is ineradicable and cannot be cured by the pills of any Dr. Morrison. In England it might be said that the curriculum of Vitterino was eminently suited to his age; when practical knowledge was insufficiently advanced to make Virgil's agriculture a mere pleasing anachronism, Pliny's natural history a farrago of curiosities, and Vitruvius' architecture a hunting-ground for the archaeologist. How far this is true cannot be here discussed. Attention must here be confined to two questions. In the first place, when systems of education are condemned wholesale, are there no elements of permanence which that condemnation must take note of and retain? And secondly, when means of attaining the aims of education are canvassed, what criteria must be adopted to determine whether the proposed changes in the curriculum are justified. From a practical point of view the second question is the more important of the two. All will agree that in education the mind and the body must be developed and the character moulded and informed. The differences of opinion arise when the question of how these results are to be obtained is brought forward. Knowledge must be given but what is its content to be and how is it to be imparted? The body must be trained, but to what extent? Character must be trained, but how? And once more if the curriculum is to be changed, on what principles is the change to be based?

Thus the two questions originally raised involve many. Granting that the development of knowledge, and character, and bodily activity must always be fundamental considerations in education, a glance at the leading contrasts between the education of the past and the present will suggest answers to the diverse forms of the question which the means of attaining this development raised. The treatment must necessarily be brief, as an exhaustive analysis would supply matter for a volume not an article. At one time the tendency was to cultivate the mind alone, at another the body. But these extremes were had. To-day many feel that in England the bodily aspect of education is excessively developed. While they recognise the merits of athletics, like the Greeks of old, they deplore the undue attention paid to them to the detriment of intellectual excellence. Further, as regards knowledge, rote-teaching and teaching by rules is becoming discredited. An effort too is made to reach underlying principles, accompanied by a rise in new methods which demand the arousing of interest and the following of 'the order of nature'. Hence the growing use of object lessons and the systematic training of observation. Old methods are discarded, and new methods based on psychology and logic are being enforced. Though

psychology is still in its infancy, the guiding principles which have become so widely propagated show how the critics of education from Pestalozzi onwards have at length secured a constructive advance. Such phrases as 'proceed from the simple to the complex' 'from the indefinite to the definite' or 'the right method produces interest and pleasure', and the fact that practice is beginning to correspond in some degree with theory shows that the means of imparting knowledge have changed. Again, as regards the moulding of character, the critic and reformer have not been idle. In many countries efforts have been made to train the growing boy to an appreciation of his duties as a citizen and his responsibilities as a man. Here many critics would be entirely destructive; and triumphantly pointing to the success of secular education in Japan and elsewhere, divorce moral education entirely from religion. As to this question, 'adhuc sub iudice lis est', and we will not attempt to decide it.

We will instead proceed to consider by way of conclusion what considerations must determine our choice of a curriculum and what standpoint we must take up if we would meet the attacks of the critics who would have us reject the knowledge at present imparted. We cannot do better than quote the following criteria. If it is claimed that a particular subject will develop any particular quality of mind, this is no argument for its introduction into the curriculum, unless it can be shown that no other subject can give it. Secondly, if the subject is claimed as giving a certain aspect of life, we must see if no other subject can give it, and if that aspect can be suitably presented to pupils of the school age. Thirdly, if a place is claimed for a subject it must be shown that the subject can be added without impairing the efficiency of subjects already taught; and this is only possible if a subject already there is badly taught in which case time may be economised, and if the pupils are working below their strength, and if the new subject throws light on and works in with those already there so that there is no dissipation of energy or is of so novel and interesting a character as to counteract this dissipation of energy by additional zest; or else it must be shown that the subject is so important as to be substituted for one already there. Fourthly, if any particular combination of elements either formal or real be claimed for any subject it must be shown that the combination can be given by no other subjects and that it is economical and effective. Finally, as regards any subject, it must be proved that its formal nature is such that, at the average leaving age, its true bearing and nature can be grasped.

If critics realised the importance of these criteria, we do not believe that they would be so ready with impracticable suggestions. All educationalists should welcome and be ready to meet criticism. But let that criti-

cism always be reasoned and reasonable, not hasty and captious. Let the critics prove their title to speak and their claim not be heard. Above all, let them not be utopian dreamers with no practical knowledge of schools and boys.

Some Points of Educational Interest in the Schools of the United States.

BY MR. R. TIRUMURTI ROW, B.A., L.T.

THE TEACHING OF PATRIOTISM.

In the history of past centuries, religious enthusiasm and freedom for the oppressed have furnished the propelling powers to which the world is indebted for much of its progress. But, to-day, the mainspring of action in many nations is a firm belief in the priceless value of education, in maintaining the life and advancing the welfare of the people. The educational institutions of the United States are largely the outcome of this faith, and they are being effectively and ingeniously turned to account to transform into ardent citizens of the country of their adoption, the many representatives of European nationalities such as the Swedes, Poles or Irish, who flock to their shores. While marked racial distinctions are noticeable in the children, in an assembly of adults, usually only one or two types are observable. The process of assimilation is intentionally promoted by the machinery of the Public school system. This merging of races into the typical American man is effected in several ways of which the most important is the hoisting of the American flag at every national fête and every school festivity, symbolising the unity of the people it protects. In addition to this to arouse and develop the spirit of patriotism among the immigrant children, vocal expression is given to the sentiment of loyal devotion to their country and its flag. The result of the impressions thus made on the plastic natures of the children is not only seen in their sensitive minds but in their physical appearance, obliterating old types and recasting them into a perceptible uniformity of figure, speech and action.

The opening exercises in the schools of the United States are the means taken to develop not only this desirable patriotism, but the spirit of courtesy to others and a high ideal of the true significance of school life and work. Before the day's studies begin, the teachers and all the pupils assemble in a large hall while the head boy of the school supporting the national flag, addresses to it, in set form, words of respect and admiration subsequently repeated by the whole numbers of boys standing. This little ceremony is followed by the reverent reading of a psalm and the singing of patriotic songs. This practice of singing patriotic songs at these morning exercises seems very general in the states, keeping constantly before the children the idea of unity,

strength, freedom and prosperity. To prominently emphasise these sentiments advantage is also taken of the 'Decoration Day,' the 30th of May, instituted to commemorate the deaths of those who gave their lives to the cause of their country during the civil war. On this occasion, the students march into the Assembly Hall to spirited strains each scholar carrying the 'Stars and Stripes' and the representative of every class recites a few lines in praise of his country, its flag and great men. Such ceremonies penetrate into the very life of the children reared under their influence and the spirit of patriotism so studiously fostered absorbs equally the minds of the American and the immigrant children.

GIVING EVERY CHILD AN OPPORTUNITY FOR SELF EXPRESSION.

The prevalent desire in American schools is to give to each child the opportunity of self-expression and to suit that opportunity to the age and circumstances of the individual. This 'principle of free activity' is made to bear its part in formal training, most visibly perhaps in the elementary stage of drawing, where children are encouraged to express themselves pictorially. Perfection of execution is not demanded. The effort may be crude and quaint in conception and frequently feeble, but it is the child's own, illustrating his individual impression gained through oral, visual or manual observation; while the process demands the exercise of perseverance and skill it develops accuracy and enlarges experience. His attention being directed to the difference between faulty execution and the actual object which he is desired to represent or reproduce, the child is led to observe his own shortcomings and to work for his own self-improvement.

The right development of the power of self-expression enters into the conception of education, the stimulus for which is found in the needs of the organism. Effort arises normally in the attempt to give full scope to the powers which demand development. In the attainment of this self-expression many difficulties and obstacles have to be overcome. To realise self-expression means to do something; and in the doing of it resistance is met with and must be faced. The old theory that the child gets more intellectual and mental discipline when he goes at a matter unwillingly and not spontaneously out of the fulness of his own heart has fallen to the ground in the United States.

It is a well-known fact that at a certain age the infant must be supplied with opportunities for using its developing teeth and strengthening its muscular activities. Now educational experts are of opinion that this system of providing the right environment at the right moment should be extended throughout childhood and adolescence not only to promote physical, but also intellectual and moral, development in the growing child, the teacher being the medium between him and his environment.

HOMELIKE AND ARTISTIC DECORATIONS OF THE SCHOOL ROOMS.

Another point worthy of record is the homelike atmosphere of a very large number of public schools, which appeals very much to the eyes and ears of visitors. It is apparently the outcome of a growing insight into child life and the attention devoted to securing the environment pertaining to its free development. The teachers in general appear gentle and there is a marked absence of high pitched tones and conventional methods. The schools in most cities contain very beautiful photographs, lithographs, and coloured prints of celebrated people, places and pictures. Almost without exception quality is preferred to quantity in these school-decorations, the pictures being really beautiful, elevating and educative in the highest sense. Funds are raised in various ways to meet the cost of these school decorations. In some cases the staff organise entertainments and in others special gifts are made by the friends of education. Art leagues also contribute munificently towards the decoration of school corridors, rooms, and halls with reproductions of masterpieces of art.

Large flowers and ferns, are found in every school-house, while ornamental screens and pieces of good furniture are common objects in the school rooms of many city schools. The use of the Black Board for room decoration is very general, graceful sketches of scenery or buildings illustrative of the geography or history lesson appearing on the walls of many schools. In the Kindergarten and primary grades these are frequently in colour each season having its appropriate representation by birds, blossoms or berries. Artistically designed calendars for the current month executed in coloured chalks and permitting of a daily record are very prevalent and are of great interest to the children.

The teachers in the United States work very diligently to surround the children with cheerfulness and beauty. To encourage the beautification of school yards the National Government has appointed that one day shall be observed annually as a festival, designated 'Arbor Day' and devoted to the ceremonious planting of trees and shrubs in bare and cheerless grounds. The teachers try to represent in the school and its surrounding what they would desire to see reproduced in the homes of their pupils.

COEDUCATION.

Coeducation is general throughout the states and is considered to contribute to the prevalence of women teachers. Dr. W. T. Harris is in cordial sympathy with the system and he says "coeducation of the sexes is preferred because it is natural, following the ordinary structure of the family and of society; customary, being in harmony with the habits and sentiments of everyday life, and with the Laws of the State; impartial, afford-

ing one sex the same opportunity for culture that the other enjoys; convenient, both for superintendents and teachers, in assigning grading, teaching and discipline; economical, using the school funds to the best advantage, beneficial to the minds, morals, habits and development of the pupils." It is admitted on all hands that by coeducation, girls become more full of resource and capable of much self-reliance, that boys gain in refinement and in a deeper appreciation of, and respect for, girlhood. The young people get to know one another well and gain a wider knowledge of human nature which must eventually contribute to the national well-being. Many social organisations are jointly initiated by the young people which have an excellent influence upon them. In large schools weekly gatherings are held at which a programme of prose and poetical recitations, piano and violin solos and choral singing is performed by selected individuals from the whole school. During such meetings absolute decorum prevails and the criticisms passed are kindly though frank.

SCHOOL DISCIPLINE AND SELF-GOVERNMENT IN SCHOOLS.

The tone of equal comradeship between master and pupil in the American schools is a matter for surprise. The children enter and leave the room with great freedom; they sit or more generally loll, in their seats as best pleases them, and the class work is usually carried on in a conversational style. Still, a very pleasant spirit prevails in the schools. The teachers are kind, helpful, and considerate, and the boys in return are bright, happy and responsive. In most of the schools there is very little need for any kind of punishment. In Chicago it is stated that no rod has been used for the last 20 years. The better understanding of the pupils' difficulties, the mutual sympathy obtaining in schools and the familiar relations between teachers and pupils account for this. Dr. Harris has reduced corporal punishment in St. Louis by requiring the teacher in charge to make a report of each case of punishment. In some cases suspension has been successfully tried in the case of the most refractory pupils. The parent is communicated with and informed that the child cannot be permitted to attend school for a certain number of days and that a permit for return must be obtained before readmission.

It is claimed by the Principals of American schools that good order is maintained without one single rule being laid down and that the influence of public opinion seems sufficient to put down any lawless spirit or discourteous action. Nevertheless, the restraining influence of the staff can usually be traced in the actions of the students and frequently an active part is taken by them in the students' own organisations for the purpose of maintaining order. In most of the schools, to adjudicate upon student delinquencies, a council is formed consisting of the Principal and some

members of the staff together with a dozen or more of the students chosen by their companions. Here, though ostensibly self governing, the students are actually under the restraining influence and supervising control of the more experienced directors. The method helps to develop in the young people a communal as well as an individualistic spirit. Strong personalities result from the existence of a few regulations while public opinion exerts a powerful influence over the pupils, being assisted by the development of the social instinct which takes place during High school life.

INTENSITY OF AMERICAN ZEAL FOR EDUCATION.

The fact that public men in America give large sums to education is ample testimony to the high estimate placed upon it in the United States. No one can come in contact with these institutions without being impressed by the vigorous activity of the national educational life. It is rearing a race of patriots full of zeal and enterprise, sound in mind and body, skilful in hand and eye, equipped for every phase of life and trained to habits of industry, perseverance and usefulness, in schools characterised by a healthy, homelike and sympathetic atmosphere. Can we ever hope to set up such a high ideal before us? It is desired that every true and devoted son of regenerated India should steadily aim at the same goal, undaunted by the hampering limitations imposed upon him by the traditions and precedents of a highly conservative system.

NATURE STUDY IN RURAL SCHOOLS.

It is a matter for rejoicing that the Government have clearly recognised their responsibility in regard to the imparting of intelligent instruction to the masses and have generously made an annual grant of Rs. 35 lakhs, for the spread of Elementary Education, with the result that a large number of rural schools have been opened. With reference to the present state of Elementary Education one of our distinguished viceroys says, "What is the greatest danger in India; what is the source of suspicion, superstition, outbreaks, crimes, yes, and also much of agrarian discontent and suffering among the masses? It is ignorance and what is the only antidote to ignorance? Knowledge in proportion. As we teach the masses, so we shall make their lot happier, and in proportion as they are happier, so they will become more useful members of the body politic." As the outcome of the prevalence of such opinion in the supreme Government, the subject of free education is just now in the air and appears to be within practical politics.

It is admitted on all hands that the enlightening of the masses is a necessary and vital adjunct to national prosperity and well-being. Recogn-

misgiving the necessity for mass Education on a large scale, and being amply provided with funds and the necessary material to work upon, we naturally turn our attention to the extent and quality of the instruction that should be given to the children that attend the newly started rural schools. In addition to the three R's, what are the other studies that should be included in the curriculum? The solution to this question has to be based upon the occupation, local needs and capacities of those who form the bulk of the population.

The staple industry of India is Agriculture which has immense possibilities before it. Whatever may be the importance of other industries Agriculture is destined to be the chief occupation of the people for a long time to come. The Government are turning their attention to this long neglected subject and as a result of it several agricultural associations have been started, Experimental Farms opened, and the College of Agriculture founded on a more substantial basis. As it is manifestly the desire of the Government that the full benefit of their agricultural policy should accrue to the people it will become necessary for agricultural improvement and mass education to go hand in hand. It is quite plain that the success of the former will greatly depend upon the extension of the latter. A few demonstrations in farms by a handful of agricultural experts will not go far in revolutionising the agricultural operations in the land unless there is an enlightened mass to intelligently interpret the results and adopt them. For the complete attainments of the ends of the Government in these two movements it becomes imperative that the masses should be freed from their ignorance and prejudices at least within reasonable limits.

In the light of the above facts it may be seen that mass education should subserve the ends of agriculture in addition to the other advantages it may confer. The question would admit of an easy solution if 'Nature study' were included in the curriculum in addition to the three R's. Nature study is a misleading term and has been variously applied in different countries to different subjects. But we may limit its application to suit the needs of our country. It may be confidently stated that the inclusion of Nature study in the Elementary school course will come as a blessing at the present juncture.

The term Nature study covers a very wide field in the modern methods of teaching. It would include the study of man's immediate surroundings and his general environment and the study of the world in which he is placed and on which he depends. Mr. Jackman says, "The means of mental training which Nature study affords are observation and interpretation. In the early interpretations lie the beginnings of the reasoning power, and with its development comes self-reliance, independence of thought and a general strength of character which marks a man among men. If a pupil be

permitted to carefully examine an object or a set of conditions, and then be required to interpret what he sees, he is from that moment ever after stronger than he was before. By that act, no matter how trivial, he begins the great work of self-emancipation from the rule of chance in so far as his interpretation has taught him how the forces about him may be resisted, guided and controlled." It would appear from the above quotation that Mr. Jackman sets a very high value on Nature study.

The area covered by the subject in the West is very extensive and is even supplemented by Economic Botany, Commercial Geography and Agriculture. If we attempt at anything like an imitation of it we are bound to fail. The painful experiences of Mr. Krishnamachari, Mrs. Brander and others in this direction must put us on our guard. Indeed there are several difficulties in the way of the successful introduction of Nature study in our schools. The seasons here are not clearly defined as in Europe and the birds and beasts do not keep to dates in the management of their affairs. At the same time the Hindu mind is not predisposed to make scientific and systematic observations of plants, beasts, birds and insects. In spite of all this we may succeed if we restrict Nature study to the study of plants, soils and climatic conditions of the locality. There is an American school of pedagogics which holds that Nature study is just another term for attractive elementary science teaching. This is just the view that will answer our end.

The chief difficulty that stands in the way of success is the want of trained teachers who can satisfactorily handle the subject. For some time there must be a struggle. But if persisted in and if the Agricultural Department lends its aid, we may be confident of success. In the Dominion of Canada the Agricultural Department is rendering great aid to the rural schools; many institutions are supported by agricultural funds and the Agricultural bulletins issued by the state are supplied to the teachers for their information.

The children should be taught lessons on natural phenomena, such as, the winds, clouds and rain, the germination of seeds, food supply, the mechanical composition of the soil of the locality, the chief domestic animals and such other particulars as add to the stock of general information with special reference to Agriculture. The teachers should be supplied with the agricultural Bulletins issued in the Board's office and provision should be made for the teaching of Elementary Agriculture in the Normal schools if it is desired to successfully introduce Nature study in rural schools, as supplementary to the endeavours of the Department of Agriculture.

The Village Primary School.

An occasional visit to a primary school led the writer to place before the public certain marked points to show how, in the nature of things, theories propounded by expert educationists are often disregarded.

Everyone realises the importance of the rising generation and the skill needed in systematically bringing them up physically, intellectually and morally. The parents and the schoolmasters are held responsible for it. The parent is credited with all the qualifications necessary for the discharge of his onerous duties and the poor schoolmaster is expected to make the boy all that he ought to be.

Organisation.—One salient point that strikes a casual visitor is the poor organisation of the village school. The black-board so much talked of is found in most of the schools, but is scarcely used. The teacher knows he ought to use it; and if questioned, will readily answer how and when it ought to be used. But indolence comes in the way and the teacher practically forgets it.

As for the furniture there is hardly any, nor is any need felt for it. The boys comfortably squat on the floor and are thus under the direct eye of the schoolmaster. A time table is framed and put up more for show than for any practical use. Mostly it is drawn up for the teacher rather than by him and so far he is content to follow the beaten track without any thought of adherence to rules.

The working days are fairly numerous excepting the busy seasons of the year and the attendance is fairly good. The truants are not generally spared except on the intervention of the parents; but this is often taxing, and boys are sometimes detained on their fathers' business for nearly a fortnight. The schoolday begins with the sun, and, allowing an hour at noon for recess, goes on till it sets.

The strength generally varies from 30 to 120, but the number of teachers is not adequate. There are cases of schools of over 100 pupils with but one teacher. The necessary registers and returns are kept, though their filling up at the proper time is not above suspicion.

Discipline.—If by the term is meant order, obedience, diligence, awe and reverence to elders, there is nothing to be desired, but when we consider the tone, there is the rub. The means of securing discipline are, on the part of the teacher, mostly non-voluntary. The youngest lads fear him and the older ones fear and love him. The monitorial system with its attendant drawbacks is freely resorted to. The school is quiet with its busy hum. The influence of the teacher's personality is generally very great. He is looked upon as a

policeman, a judge, an arbiter and occasionally a counsel. The teacher who wants to win the co-operation of the parents of the boys must be of a versatile intellect and mainly of a practical turn of mind. No mischievous child is hushed into silence, no crying urchin is lulled to sleep, no dispute of any kind is finally settled, without the schoolmaster being called in. He is the spokesman of the villagers when any high official visits the village. The foregoing facts are sufficiently illustrative of the magnitude of the work of the village schoolmaster. Is he equipped for such a task?

Very often young men soon after they pass a public examination seek this profession and not infrequently find themselves to be prominent members of the village. If among the points discussed by the villagers there be one which would materially injure any, they divide themselves into two parties and the poor schoolmaster has now at a very short notice to adapt himself to the situation, from which there will not be many who return unscathed. Cases are common where the teacher is reported and often punished, because he sided a party antagonistic to the village mansiff.

We have hitherto been dealing with the organisation and discipline. We shall next turn our attention to *the methods of instruction.*

This is the darkest phase of school work. The few rules of method the teacher learnt at school while under training are soon forgotten, and if even then some still ring in his ears he takes all possible care to leave them severely alone. His methods are all dogmatic, the boys are treated as so many talking machines whose business is to store the few facts learnt at school and repeat them when required to do so. The *driving home* or *assimilation*, which in these days of reform is much emphasised, is mostly, if not totally, neglected.

The teacher should set up a higher ideal before him and try to reach it. What he has learnt with so much trouble while under training, he should cultivate as a self-imposed duty. The educational authorities and managers should enforce this rule; any breaches thereof should be strongly discountenanced.

The subjects taught in all the schools are the same, but the methods are rarely rational. The work of the teacher is surely minimised, if, instead of trying to get the fact from the personal knowledge of the boys, he dogmatically asserts them; but he does not realize that his *short cut* is highly prejudicial to the education of the youth. A teacher questioned as to the method employed in teaching the alphabet replied that the rational method recommended in training institutions cannot be followed in a village school, because it takes much time! When he was next taken to task for disloyalty to his training-school, he replied "That is all right. But the parents here do not

like it. They are impatient to see their sons learn a great deal in a month, while the rational method would require one year to go over the same ground." There is some truth in his statement. The parents often complain that the teacher while teaching subtraction wastes much time by bringing in sticks, pebbles, &c. What they contend for is that "Practice should precede theory" and it takes one some time to convince them that what they say is but half the truth.

The teacher is often sneered at for his object lessons, and in Kindergarten teaching he experiences the greatest difficulty. The ordinary parent projects his ideas into the immature brain of the boy and is not easily convinced of the rationale of the method. This also accounts for the lack of co-ordination between work and play, because the advantages of the latter are not generally realised by the parents, who on seeing the children play think that it is purposely brought in so that the teacher may enjoy leisure. They do not understand what 'rest to the brain' means.

As one interested in primary education the writer often used to visit a few village schools and to ascertain how far the circular orders of the Educational Department with respect to improved methods of education were carried into effect. He would give some model lessons and help the teacher in other ways. On one occasion the parents after witnessing the lesson remarked that the methods would be very good if they were followed by a man of high qualifications, but that in the hands of their schoolmaster they would be a waste of time.

It can thus be seen that in order to secure the co-operation of the parents the rationality of the method should be shown whenever anybody happens to question it. But on this score it should not be slighted.

Throughout the foregoing remarks the need of a capable teacher to be in charge of a primary school has been sought to be established. It goes without saying that it is not possible to employ men of high qualifications on such low pay. But where a school can afford to have such men they should be procured at a reasonable cost. But where it cannot be cured, it must be endured.

In the following paragraphs a few suggestions are offered to improve the status of such a school. The methods of instruction would first be touched upon, for on them depends much. The teaching should be natural and realistic. As far as can be judged there is no attempt made to suit the instruction to the capacity and attainments of the boy. Individuality is sacrificed at the altar of dogmatism. The prominent instincts of the child—imitation, curiosity, love of narrative, &c.,—should be largely utilised. The hard and fast division of the subjects of the primary curriculum should be done away with. An eminent educationist of Madras recently remarked "I shall not see arithmetic as a subject in the time-table of the lower standards". To the young boy all this information is cognate, in so far as it interests him. Before

imparting formal instruction through text-books, preliminary oral lessons may be given covering the field, which would certainly facilitate the formal instruction to be imparted later on. The teacher should analyse the various facts treated in the book to be presented to the boy in a regular order, taking care that the division is not into compartments. In the mode of presentation, the teacher should use his discretion as to the best way of correlating the various facts.

The instruction given at school should not be dissociated from what the boy gets at home. The surroundings should be so explained to him that he will think school-life is but a continuation of his home-life. Every boy has his hobby, which should be discovered and made good use of. What is generally presented at school is a something adapted not to the pupil but to some one else and forced upon the reluctant victim. It is a sad mistake to insist on having the little ones develop along the same course by which the teacher has been developed, to think the same thoughts, and to be an exact counterpart of the teacher. The object of improvement is the child and not its teacher! The apparent dullness of many children is largely due to this drawback in the teacher. It should be clearly remembered that the subjects of the curriculum are not ends in themselves, but are means to the unfolding of the child's latent powers. In so far as all the subjects aim at this one supreme end they should form an organic unity.

Moral Instruction in Indian Schools.

(AN ESSAY READ BEFORE THE TEACHERS' ASSOCIATION,
NATIVE HIGH SCHOOL, PALGHAT.)

Perhaps the most fundamental doctrine held by all writers on education is that real education must be a harmonious development of all the faculties of man. The physical, intellectual and moral aspects of a man's culture ought to receive proportionate development and then only can his education be said to be complete. On the other hand, that educational system which does not provide for any of these three important and essential factors is sure to end in the long run in very unsatisfactory and even dangerous results. If the physical side of education is kept in the background while intellectual discipline alone is prominently attended to, then the student will become a puny, sickly and grave man, whose intellectual labours, going beyond the capacity of bodily exertions, will ultimately bring on even premature death. If, on the other hand, intellectual culture is unduly neglected and subordinated to the physical—as is done in many of the European schools—then it will be only a sure and efficient way of making a human being become practically a beast! But both intellectual and physical education can, when combined, attain perfection if it is only

supplemented and ennobled by instruction in morals. The formation of character is as important an aim to keep in view as the development of intellect or the improvement of the student's physical organism.

This many-sided function of education has been the basis on which every civilized country in the world (except India) has constructed its educational system. That the mission of education is to raise the moral tone and life of the student and thus benefit him as well as the society to which he belongs, is beautifully expressed by the State Law of Massachusetts, one of the great provinces of the United States of America. "It shall be the duty of all instructors of youth to exert their best endeavours to impress on the minds of the children and youth committed to their care and instruction the principles of piety and justice; love of their country, humanity, and universal benevolence; sobriety, industry and frugality; chastity, moderation and temperance; and those other virtues which are the ornament of human society and the basis upon which a republican (or any other kind of) constitution is based." In the Kindergarten, the Elementary school, the High school and even in the College and the University, this moral aim is never lost sight of in the United States of America. In England, all the wrangling and excitement which now characterises the country is due to the Educational Bill which aims at the abolition of sectarian teaching—a capital proof of the English public opinion regarding the necessity of religious, not to speak of the moral, instruction in English schools. "The public school system, as we understand it in England," says Lord Curzon, "is one which is devised to develop simultaneously and in equal measure the mind, the body and the character of the pupil. We undertake to educate our young men in these schools in England for the position or profession in life which they are destined to fulfil. We endeavour to train their physical energies so as to give them a manly bearing, and to interest them in those games and pastimes and pursuits which will both conduce so much to their health, and add so greatly to the pleasure of their lives; and above all, by the ideals which we set before them and by the high example which we endeavour to inculcate in them, and by the attrition of mutual intercourse with each other from day to day, we endeavour so to discipline their character that they shall be turned not merely into men, but what we in England call gentlemen. Now, in England, this system of which I am speaking has attained a perfection unequalled in any other country. In England boys are drawn to our public schools from every class in the community that possesses adequate means. Two of the Queen's grandsons are at this moment being educated at Eton, which is the greatest of our English public schools. There the boys of the school mingle together in a position of perfect equality. They board together in the same house; they take part in the same classes; they play games together; they are taught not merely by their masters, but by the high standard that prevails in the school, and among the boys themselves to be honourable, chivalrous

and just; they form friendships with each other that last for a life-time and when they go forth from the school to take their place in the world they are proud and fond of the school, and their first and highest desire is to do credit to the institution which has done so much for them." Coming nearer, and to the east, we find the same moral aim to be the corner stone of the educational policy of Japan. As Mr. Alfred Stead says, the system of moral instruction in that country "is the most valuable example of the possibility of teaching moral conduct and right living without dogma." The official approval of moral instruction as the chief force for fostering the performance of duty and the spirit of loyalty and patriotism, was granted in the year 1890 by an Imperial Ordinance. According to this ordinance even "Elementary schools are desired to give children the rudiments of moral education and of education specially adapted to make them good members of the community, together with such general knowledge and skill as are necessary for practical life, due attention being paid to the physical development." Care is taken by Japanese educators that "the essential point of moral teaching should be to nourish and develop the virtuous instincts of the children and to lead them to the actual practice of morality making the precept of the Imperial Prescript its base." The Imperial Ordinance enjoins moreover that education in practical morals should at first relate to "filial piety, brotherly kindness, friendship, frugality, truthfulness, self-restraint, bravery, and similar virtues;" that instruction on duty to state and society should follow immediately after the inculcation of these virtues; and that the sentiments and ideas of the young should be strengthened and ennobled "by fostering in their minds an enterprising and courageous spirit and due respect for public virtues, coupled with the truest admiration of patriotism and loyalty."

In the same way there is ample provision made for moral instruction in every other country in Europe or Asia. It is the educational system of India alone which forms a unique exception to this universal rule and policy, and which has been for the past fifty years purely secular and intellectual in its character. It is true that Lord Curzon once gave expression to the idea that "the ultimate justification of our educational system, culminating as it does in the degrees of Indian Universities, is that the character of the individual student should thereby be moulded into a higher moral and intellectual type;" and that if that ideal be reached, the student would become "not only a better pleader, or clerk or journalist, or official in the Government service," but also "a finer specimen of man" exercising a healthy influence on his environment inspiring others with his example, and elevating and purifying the tone of the society to which he belongs and the administration of which he forms a part. But this ideal can be only realised if the education imparted is such as to produce those healthy effects "upon character and morals, upon the standards of honour, of honesty, of justice, of duty, of upright dealing between man and man." And it

is a matter of common knowledge and experience that the education imparted at present in India is not such as to bring about, directly or indirectly, the realisation of those ideals on any large scale; and therefore to look for that result in the face of such adverse circumstances seems idle, even though the expectation might be a viceregal one.

Fortunately for the country, however, there has arisen recently a very widespread appreciation of moral instruction in all the educated quarters, as a result of the bitter experience in the past of the dangers of a purely secular system of education. Indian educators have become convinced that the sceptical tendencies, the growing vices and the unworthy lives led by many a man, are due to the absence of any kind of moral instruction in his youth. They have come to realise that the system of instruction as given in Indian schools is thoroughly exotic, as being "the outcome of an alien school of science, of philosophy, of logic, of literature, or of art;" and that it contributes more than anything else to make an Indian a hungry seeker of diplomas and "a sort of phonographic automaton into which have been spoken the ideas and thoughts of other men." With a strong conviction which characterises every lesson taught by bitter experience, Indian educationalists are trying their best to institute some sort of instruction in ethics to the school-going population—instruction which will not touch upon the jarring discords of different societies coming under the extensive pale of Hinduism, but which will be taken from the central and cardinal principles of all castes and creeds. As the Hon'ble Mr. Perraju of the Godavari District says, "In the present state of social chaos and irreligious growth, money invested in the inauguration of systematized religious instruction is best invested; and hence in all schools under private management the teaching of common Hinduism during part of the week, with facilities for denominational teaching on other days, either outside or inside the school will be most popular and desirable." Dewan Bahadur Raghunatha Rao is of opinion that "without religion education is a dangerous weapon in the hands of a tyrant. Religious education should be imparted in all, from the lowest to the highest place of instruction, schools, colleges and Universities. There are truths inculcated in our religion which are the bases of morality and which are in some degree or other embodied in every religion extant. These general truths should be taught from their fifth year even."

Sir Gurudas Bannerjee says "The object to be kept in view in a scheme of religious instruction should be the teaching of those fundamental principles which are common to the religions of all civilized communities; and the method to be adopted should be, to extract those principles as far as possible from the sacred books and secular literatures of the respective communities to which the pupils belong, and then to supplement these extracts by others taken from the religious writings of other communities, controversial matters being avoided." Prof. Rangacharya is of opinion that "so far as

the Hindu community is concerned the interests of morality and civilization are best helped by endeavouring to direct the formation of character among the Hindus by means of imparting of lessons in Hinduism."

We have thus far seen how keenly the want of moral instruction is felt and how frequently educated Indians have raised the cry for its introduction in schools. We shall now go on to consider the chief ways in which instruction in morals can be carried on successfully in our schools. Before entering into the question, however, one preliminary fact has to be noted; namely, that in this country, unlike European ones practical morals cannot be so clearly distinguished from religious tenets and consequently great care is necessary to see that the two are not divorced from each other. In the West where literature, philosophy and even art have not the least connection with religion, a marvellous code of practical morals without trespassing into the grounds of religion has been possible; but in the East, especially in our country all our literature is more or less religious, all our philosophy closely allied to our religious beliefs and all our art is a mere representation of our religious and mythological stories. Consequently practical morality is entirely dependent on the religious sect to which one belongs; and it is often the case that the customs of social etiquette differ with different sects. All these facts have to be taken into consideration when the question of moral and religious instruction is discussed. The practical morals taught should not conflict with religious tendencies; and the principles of religion which are taught in the school should be so common and universal in their application as to appeal to all classes of Hindus, the Sudras and Brahmins, the Saivites and Vaishnavites.

Moral education includes in all western countries not merely the inculcation of the virtues which form the ornament of human society, but also the training in the duties of citizenship. The keyword of American education, for example, is "to train the individual will to recognise and respond sympathetically to the larger will of society;" to train children in the civic and social virtues and in the power of voluntarily organising school groups and clubs. The American school in short is "to furnish a life to its members in which the environment should be so blended as to represent on a smaller scale the national conditions into which, as adults, they will be called upon to enter." In Japan, the single aim of education is to produce public-spirited men who would be ready to undergo any kind and any amount of sacrifice for their Emperor and their country. The same is the case with England, Germany and France. Hence in dealing with moral education in India we have to consider the question under two aspects, *viz.*, education in the ordinary virtues of human society and education in civics.

* * * * *

[We regret that we cannot find space in the Journal for the latter portion of the essay. *Ed.*]

The Growth of a University.

THE name University originally denoted nothing more than a community or Corporation regarded under its collective aspect, and used by itself it might, and did, describe any Corporation that was devoted to learning, education, and letters. It was necessary, therefore, to further supplement the word University by the addition of such words as "of teachers and pupils" to enable it to carry its modern meaning. Even then the University of teachers and pupils did not denote a Corporation formally recognised by the law of the land until the end of the 14th century. So disorganised had the schools of the Roman Empire become, owing to the successive invasions of Barbarians in the fifth and sixth centuries, that the traditions of Pagan education had almost completely disappeared and learning was preserved chiefly in the monastic and Cathedral schools of the Church. Such a school, for instance, as that of York in England, was the bright centre which illuminated Saxon England and largely revived learning in France. Once again, the invasions of the Danes on the one hand, and of the Northmen on the other hand, nearly destroyed the fruits of the revival in both England and the Empire founded by Charles the Great.

It was in the endeavour to include new subjects of study and to introduce new methods of teaching that the University proper began to arise and to be distinguished from the monastic school. Men had other needs than those which the learning supplied by the monastery, excellent though it was in many directions, could meet. In the ninth century, intercourse with the Saracens who had established themselves in Sicily gave rise to the desire for a more scientific study of medicine, which resulted in the foundation of the University of Salerno. Three centuries later, Bologna became noted as a teaching centre for Civil Law; the need having arisen owing to the rapid increase in the population, commerce, and wealth of the States of Lombardy. The Codes handed down by Theodosius and Justinian had worked well enough, but the more complex political and commercial relations of the several States demanded a more definite application of the principles embodied in those Codes. The study of Civil Law was necessarily secular in nature, a fact which alarmed the advisers of the Pope, and it was only after the introduction of the study of the Canon Law, stimulated by the issue of the Decretum of Gratian, that the Papal disfavour was removed. Bologna was henceforth the centre of instruction in both the Civil and the Canon Law. The footing and the influence thus re-established by the Church was destined to have a large influence on nearly all the Universities of Christendom, not always, as viewed from to-day, to their great advantage. To such good effect, however, did the theologian re-appear that the foundation of the University of Paris may be said to be due to the *odium theologicum* aroused by two famous controversies. To be able in argument and learned in the refinements of dialectic was to the mediæval world the height of attainment. Dialectic became the science most to be desired and the school founded by William of Champeaux became famous.

So far the University may be said to have sprung from the intellectual needs of the day, but other causes also led to its corporate character. When in 1155 Barbarossa invaded Italy, he accepted the submission of the University

of Bologna and granted it certain immunities and privileges, having found by enquiry that its members were often subjected to unjust exaction at the hands of the citizens and stood in need of a strong protector. Moreover, when the fame of a University attracted large numbers of the youth of many countries from the ends of Europe, Societies or "nations" of fellow countrymen were formed for protection against the extortion of the landlords who afforded shelter, and the rapacity of the traders who alone could supply their wants. Then, again, the teachers of the various branches of learning grouped themselves into Faculties, for the purpose of comparison and mutual support, until at length these various "nations" of students and Faculties of teachers combined together to form the University, under a recognised head, the Rector or Chancellor. So far the University had a separate organisation and was quite independent of the Colleges; indeed, the University existed long before the College appears. The latter arose owing to the pressure of several serious and insistent needs.

So loosely attached was the scholar to his University that an exceptionally violent outburst of hostilities between "town and gown," or the outbreak of pestilence, would sometimes find the University well nigh deserted by teachers and pupils alike. From the material thus supplied a new and rival University would spring up only to meet, perchance, a like fate in turn. As proof that protection from the violence of the mob was much needed, the following quotation from Mr. Mullinger in his history of Cambridge will be to the point. After mentioning various destructive frays he adds:—"At St. Mary's, the University chest was broken open and the documents which it contained were destroyed, the masters and scholars, under intimidation, surrendered all their charters, muniments, and ordinances and a grand conflagration ensued in the market-place, where an ancient beldame was to be seen scattering the ashes in the air, as she exclaimed 'thus perish the skill of the clerks.'" To afford some protection from the town, therefore, for the pestilence none could avoid save by flight, to secure regular and adequate remuneration to those who taught, to ensure a proper discipline for those *in statu pupillari*, to reward and to encourage poor but diligent scholars, and to guarantee (in England) a sufficient supply of clergy, Colleges were founded and endowed. From such beginnings, to supply such wants and, later, to confer degrees, did the modern University arise to do its noble work in the State—*The Madras Mail*.

The Teacher Taught.

It must be far more amusing to be a child nowadays than it used to be. Unfortunately, this is a reflection which can only be made by those for whom the days of childhood are in the far retrospect; the others have not the data for comparison. Of course, it is the habit of all who are adults to inform the modern child that his is the only age in which pure happiness is known. But if we have the rare gift of looking back with a sufficiently clear vision to reconstruct our own past, it is a little doubtful whether we shall find it to possess all the delights which we claim for it; and when we see it reconstructed by those

who have the gift of interpreting for us that state which we have left so far behind—let us say, for example, Dickens—we do not see an image which is all joy. The chief of the troubles were associated with lessons. The system of education, or its lack of system, was the cause of most of them. It would not be far wide of the truth to say that Dickens himself never drew a picture of more true pathos than is contained in a single illuminating sentence where the great Dr. Blimber, having taken a glass of port-wine and “hemmed” twice or thrice, said: “‘It is remarkable, Mr. Feeder, that the Romans—’ At the mention of this terrible people, their implacable enemies, every young gentleman fastened his gaze upon the Doctor with an assumption of the deepest interest.” Dickens was a caricaturist; but he never strayed far from the truth in his caricature, however he may have wandered in his sentiment. The egregious Dr. Blimber was no fancy portrait of an individual: he was an incarnate, and not very uncommon, type. The sensations of the young gentlemen of his establishment on hearing the very name of the Romans can be recognized and appreciated as closely akin to the personal sensations or emotions which this classic name aroused in the school days of very many of us who have left those days far enough behind to perceive them in just perspective. In spite of the distance of time, we can still seem to feel the chill effect. The point of this frightful indictment of the typical educational system of the past is that the character and the exploits of these “implacable enemies” of boyhood were just such as should have stirred a boy’s heart to the most eager glow of interest and admiration. The materials of which classical history is composed—the stories of the Iliad, the Odyssey, the Aeneid—are the stuff of which the most beautiful dreams of the young male human creatures are composed. It is only the portentous manner in which they were presented to him by pedagogues of the Blimber type that could ever turn them into nightmares. We are able to see now, having left our Dr. Blimbers, with other better things, in the dim and kindly distance, that these Greeks and Romans were not only real people, talking a language which actually meant something and was not invented solely for our torment, but that they were in truth, the most delightful savages; that they went about killing, raiding, robbing, doing everything that is most congenial to the mind of boyhood; that they were living, as the savages live, in the primitive, unspoilt, boyish age of humanity. The fact that the story of all this is told in the most magnificent language that the world has read or heard is not any reason why the tale should be less appreciated by a modern boy than a “penny dreadful” or a “shilling shocker”. The reason why these old-time stories affected him as they did, instead of as they should, was simply Dr. Blimber.

The further reason why Dr. Blimber, probably as well meaning a person as most men, thus converted those who should have been boyhood’s closest friend into “implacable enemies” was that he lacked, as conspicuously as his great creator possessed it, the faculty of putting himself into another’s place. He never realised for a moment or in the slightest degree, the necessity for doing so—that was his misfortune and the cause of his being a misfortune to many others. If it had occurred to him to consider the performances of the Romans from the

points of view of those whom he was trying to instruct, instead of viewing them purely from his own, it is likely that he would have addressed himself to the task somewhat differently. This is in fact, the great change for the better which has come over modern ideas of education: that the effort of the teacher—that is to say, of the teacher who is at all acquainted with the latest theories—is to see eye to eye with the child in every detail, to regard the problem through his spectacles. It is not easy of accomplishment. It is quite difficult enough to be interesting; the effort must make the education of the child very much more agreeable to the modern teacher than it can have been to the portentous Dr. Blimber, and it must contain the elements of the most fascinating science in the world,—the knowledge, namely, of the mind of a child, which is, of course, the mind of man in the making. One of the very first points which “jumps to the eye” when the effort is made to regard the acquirement of knowledge from the stand-point of a child is that it is very difficult, perhaps it may be said to be impossible, for the facts of a subject or the details of a problem to be grasped unless the interest has been first aroused. Attention should be involuntarily attracted in the first instance. If we require a reason why this should be, the biologists, as well as the psychologists, will be quite ready to furnish us with one; but this is a subject too recondite to enter upon here. All the modern theory (and certainly in this at least it is right) is to amuse the child into learning its lessons,—we had almost said to “cheat” into learning. The idea of combining amusement with instruction, or, rather instructing by means of amusement, is as opposed as possible to all the educational theories, if they can be said to have possessed any, of the pedagogues of the old school. If they had a theory at all, it was that the nastier the dose, the better for the patient. It is clearly a great step gained that we have changed all that.

This new idea of education is most readily suggested to the popular mind by the word “Kindergarten”; but of this, as of many things, the idea of the popular mind, although in the main accurate, is vague. That vague idea is that the children at the “Kindergarten” are encouraged to make pictures and models of animals, and thereby to learn that a bird has wings or an elephant a trunk. As an excellent Philistine of our acquaintance, who had not given much serious thought, perhaps, to education, either personally or for others, remarked: “Kindergarten?—Oh, I know—jolly good idea—teach the children all about a frog by making ‘em play at leap-frog. Wonderful fellow, the Kaiser—his own idea entirely.” Such, or nearly such, is the general condition of knowledge on the subject. Very few even of those who are more fully enlightened, realise on what a thoroughly scientific basis the system rests.

We have before us as we write two little books, the first and second of a series (Nelson and sons, 3s. 6d. each), on which the worst criticism that we have to pass is that they bear the singularly misleading title of “Nature Studies”. At the first, this seems to breathe the spirit which inspired Richard Jeffries and inspires an ever increasing body of disciples. Their contents, however, are entirely different. They consist of an explanation of the methods

and principles of such schools of education as are associated with the names of Fröbel and Herbart, primarily, and also serve as handbooks for the instruction of children in accordance with the system. The subjects for the lessons selected are such as are most likely to attract the child's mind—flowers, birds, fairy-tales. It is suggested that certain flowers and certain birds are associated with certain seasons of the year and at these seasons, accordingly, it is appropriate that such birds and flowers should be discussed,—the swallow, for instance, in summer, the robin in winter.

Thus the child will readily place each in its proper environment. The faculty of observation and a disposition to draw inferences are to be fostered by such questions as why the swallow flies with its mouth open. A large portion of the books is occupied with analysis of one or other of the familiar fairy-tales, such as the terrific story of "Little Red Riding Hood", apparently deemed not too alarming in its influence on the childish mind and many more. The various steps or stages in the lessons, whether the subject be a natural object, such as a bird or flower, or a fairy-tale, are five:—(1) Preparation, in which the aim of the lesson is explained; (2) Presentation or laying the subject before the child; (3) Association, giving the child some idea of the relationships between the subjects of the lesson and new subjects; (4) Formulation or generalisation; (5) Application, in the way of making the people write something or draw something which the lesson has suggested in order to deepen its impression on him. The analysis of the Red Riding Hood Story is headed with the "Central idea: Obedience to parents"

The five steps aforesaid are thus developed—"Step I. Analysis of children's ideas. Step II. (a) Red Riding Hood and her Mother; (b) The Walk through the wood; (c) The grandmother's cottage; (d) Red Riding Hood and the Wolf; (e) The Wood-man. Step III. Compare the Mother's directions with the way Red Riding Hood carried them out. Step IV. 'Children, obey your parents'. Step V. Word-building; Language; Memory Drawing". This sounds in cold blood astonishingly stilted and pedantic, but we do not doubt that in spite of this, it will appeal to children. No one who knows anything of children can have failed to notice their intense interest in, nay, love of, what is didactic. They love not only a moral, but like to see it analysed down to the bare bone.

This brief statement may serve to give an idea of the way in which one of the most difficult of all human problems, the education of children, is faced by the methods of this system, and it is evident how very different it is from the manner in which it was regarded by Dr. Blimber. The problem can hardly have presented itself to him at all. Doubtless, poor man, he had his troubles, but the cause of the troubles gave him no thought whatever; it was obvious,—the innate and sinful stupidity of his scholars. It would need a brain very different from that of a Blimber to entertain a proposition so appalling as that, any lack of intelligence on his own part could be in any way a reason of the trouble. The two books named "Nature Studies" to which special reference has been made are prepared by Miss Catherine I. Dodd, of Cherwell Hall,

Oxford. The second of the series is prefaced with a highly appreciative introduction by Mr. W. Scott-Coward, late H. M. Senior Inspector of Training Colleges.—*The Spectator*.

The Training of the Colour Sense in Children.

BY MRS. KIRK, HEAD MISTRESS OF THE BRADFORD BELLE
VUE INFANTS' SCHOOL.

In this short paper, dealing with the training of the colour sense of children, I shall confine my remarks chiefly to the training of children under nine years of age, with whose work and characteristics I have had the most experience.

A sense or feeling for colour, in common with other artistic feelings, is too often regarded as being the special property of a few favoured individuals, and not as a feeling which is possessed by humanity in general. That this is *not* so is shown by the spontaneous delight in colour which is manifested by all young children, rich or poor; even the baby only a few months old is attracted and fascinated by any brightly-coloured object.

"Colour is one of the great joys of life. That is why we want it in schools," for joy and happiness in the soul are powers for good in the world, just as misery and sorrow are the hand-maidens of evil. The happy child is the good child, and anything that increases the capacity for happiness tends to develop goodness.

The aim of education in its highest sense should be the proper cultivation of the feelings; and it is a sound educational principle that the instinctive desires or "hungers" of the soul must be catered for as they arise, if they are to attain their highest and fullest development.

The period of childhood is pre-eminently the period when the senses are keenly alive to impressions of all kinds, and it is these impressions which form the groundwork of subsequent mental life. *Æsthetic* dullness or indifference is at the root of much of the mental as well as the moral insensibility of the uneducated; and unless the *æsthetic* side of child-nature receives attention, we cannot expect a high development of character in the adult, for character is dependent on the will, and the will is developed by a proper cultivation of the feelings.

Edward Thring, one of the greatest educators of modern times, says: "Powers spring from love: cherish the impressible and keen capacity of feeling; it is the beginning of power."

In the education of little children it is necessary to begin with things, *which arrest their attention*; and colour being one of the greatest attractions

to a young child, it is therefore evident, that training by means of coloured materials should begin at an early age. Fröbel recognised this when he chose the six coloured balls as his first educational toy. "Young children, like primitive people, begin by loving the stimulating colours, and like to have them in large masses. They take their colour as they take their food, at first rather greedily. The colour in the infant school therefore should be bold and bright, and not too finely graduated. Only when the colour hunger is satisfied does it become discriminative."

The natural curiosity of children is the starting-point for the teacher. They are hungry for things to see, touch, handle, examine, etc., and yet in school many teachers carefully put all such things out of reach. Especially is this the case with colour and objects that stimulate and develop the colour sense, and amazement can only be felt at the very frequent and conspicuous absence from the schoolroom of bright colours.

In an ideal environment nature herself provides all such objects for them; but, unfortunately, this ideal is impossible under ordinary circumstances. Environment plays so large a part in education that its influence cannot be lightly ignored, and the effect of colour in the environment of children is of paramount importance. Everything in nature develops or decays, and a child's budding sense of and love for the beautiful must be fed with suitable food, or it, too, will languish; and when this happens, the power to quicken such feelings into full and vigorous life again cannot be found. If the blossom of spring time is blighted, it is useless to look for good fruit in the autumn. The colour sense of the English people in the Middle Ages is said to have been of a very fine order—bold but delicate, and above all, pure and healthy. Is it lost, or only lying neglected, in the children of our schools?

The fine colour sense of the Japanese was evolved in the common people. They have their "beauty feasts." The whole nation makes holiday when the trees are in blossom and the country a blaze of glorious colour. The goldfish, too, with its wonderful hues and poetry of motion, is with them a household god and daily companion.

For training and developing the observing powers colour affords the greatest possibilities when used systematically. It is, however, very important that a *correct* standard should be taken as a basis, so that a child may proceed steadily and not have anything to unlearn afterwards—a most demoralising process for both teacher and pupil.

Nature seems to have anticipated his needs in this respect by providing in the "rainbow" a basis for colour perception and instruction. Unfortunately, this "triumph of colour" is not always available for teaching pur-

poses; but its place can easily be taken by the prismatic spectrum, or the colours produced when a beam of sunlight is refracted and dispersed by means of a glass prism.

The spectrum presents a natural basis for the development of correct colour preception, for the colours of the solar spectrum possess a purity and brilliancy to be met with nowhere else. These spectrum colours may appear somewhat crude to certain educated and artistic minds. Little children, however, as we have seen, have not yet reached this stage; they require bright colours as standards for comparison, for their powers of observation are as yet untrained, and therefore contrasts require to be strongly marked in order to be perceived by them.

In the early stages children have no desire to know *how* the various colours are produced. They are satisfied by merely looking at them, and naming and comparing one with another, and with the various objects in their environment.

In addition to being keenly sensitive to the colours of flowers, animals, insects, etc., they are very much attracted by the colours of the atmosphere. Here is a wide field always at hand for the exercise of the observing powers and the development of language. The moving clouds, the sky, sunshine and shadow, sunrise and sunset glows, the rainbow—all these are capable of being pressed into the service of the skilful teacher, for they are all fascinating and arresting objects of attention.

Unexpected illustrations of spectrum colours sometimes occur even in school, as is shown by the following incident: A class of children engaged in physical exercise were startled by the appearance of the spectrum on the floor of the room. They at once informed the teacher, who commenced to look for the cause, and traced it to an open window, where the pane was slightly inclined inwards and upwards. A quantity of rain had fallen previously, and, the window being open, some water had lodged on the lower edge of one of the panes, forming, as it were, a prism of water. During the lesson the sun shone out brightly, and the beams happening to strike the window, the water acted as a refracting medium, and a spectrum was thrown on the floor.

Whether the spectrum colours are produced by raindrops or by a prism, the order in which they succeed one another is always the same, the red being refracted the least, and the violet the most; hence in a primary rainbow the red is always on the outside of the bow, and the violet on the inside, with the other colours between in their proper order.

Children whose observing powers have been awakened will often notice other instances—for example, the effect produced on a sunny day by the spray of a fountain or a cart watering the streets.

The first steps in colour-instruction must consist in training and developing the perceptive faculties of children by the use of suitable coloured materials. By means of these the powers of observation are to be exercised and definite and accurate knowledge acquired, accompanied by a correct colour nomenclature, to serve as a basis for future work.

This training should proceed systematically, the steps gradually increasing in difficulty and complexity as the children's powers develop.

Young children require a great variety of material, in order that they may make acquaintance with many different things, and also acquire an extensive vocabulary.

There should also be a gradual progression in complexity of the material used for expression in colour as the children's powers of manipulation and ideas of form and colour develop, for, by having to express their ideas through new channels, their knowledge is rendered clearer and more definite, and their perceptive powers keener.

Instruction in the mixing of colours and the use of brushes and paint may with advantage be deferred until children are able to do the mechanical act of mixing for themselves; and this, in the case of large classes in elementary schools, cannot be reasonably expected before the age of seven years.

By that time children should be able to recognise and name correctly the six spectrum colours—red, orange, yellow, green, blue, and violet—to match them accurately, to arrange them properly in graduated scales, and to know the elementary laws of colour contrast, such as red and green, orange and blue, yellow and violet.

The trained eye of the artist is constantly seeing beautiful harmonies of colour unheeded by the unobservant individual. In Edinburgh the camera obscura is being used by an educational enthusiast, Professor Geddes, in order to revive the starved colour sense of adults. By its means they are enabled to obtain a glimpse of the artist's delightful colour world, for in it they see the reflection of their apparently commonplace surroundings with all their natural wealth of colour revealed as in a picture. The roads, the grass, the grimy walls, even the apparently colourless smoke, assume a new significance, so that one is almost tempted to believe it to be the result of some magic power. Truly "beauty is in the eye of the beholder," and the pity is that so many eyes are blind to the beauty that is all around them.

All children have the artistic temperament—it is their birthright; but they are often kept from the enjoyment of it by being shut out of God's beautiful world into prisons made with human hands.

If children in crowded cities are to be taught indoors, they should be surrounded by objects beautiful in themselves, beautiful in form, in colour, and in design, for, as Ruskin says, "The mind that seeks the beautiful is on its way to become a beautiful mind."—*The Practical Teacher's Art Monthly*.

Some Criticisms of Modern Methods of Teaching History.

To add to the many recent articles on the teaching of history is bold; to begin with a statement of the aim of history teaching is not only bold, but hackneyed, and requires so much courage that only a conviction of its necessity would lead to the adoption of such a course. But the aim of history teaching is so much more easily lost sight of than the aim of science or mathematical teaching—perhaps because it is less clearly defined and less generally accepted—that it is well to keep it always before us. Moreover, it is as the methods help or hinder the end in view that they are valuable or the reverse.

The ends to be attained in history teaching are two in number, and their practical character will be quite clear. The first aim is the inculcation by means of concrete examples of sound theories of citizenship and right conceptions of the relation between the individual and the State. This sounds very abstract and ideal an aim. It need not be so in reality; for the child may pass through a complete course of school training and yet never know what aim has been always before his history teacher. To put this as the first aim of history teaching, however, does perhaps require some justification, and this justification may be found in the social and political condition of England at the present day.

To any thoughtful student of modern political and social questions it must be quite clear that England is passing at present through a crisis. There is not only the question of the maintenance of the Empire, with which is bound up the whole question of our connexion with foreign countries; even more pressing than these, there is the question of the adequacy of representative government, as we know it, to represent faithfully the wishes of the majority of the people; there is the question of the distribution of wealth and the moral responsibility of each citizen for the welfare, bodily and mental, of his fellow-citizens. Such questions throng upon us, and they are not to be settled by a few leaders of thought. They are pre-eminently questions in which "a right judgment" must be exercised by every man who has his share in the control of the nation's destiny. The men who will one day settle these questions, and the women who will help them in their decisions are now growing up in our schools, and it depends upon the extent to which we, the teachers of history, can make them realize their responsibility—and, realizing it, act in accordance with the light which they have gleaned from the consideration of similar difficulties in times

past, and in harmony with the habits of judicial choice which they have formed during their school career—that England will maintain its leading position, or sink into one of the minor nations of Europe. It may be urged that to entrust such a function to the teacher of history is to put far too much power into his hands, and that his position will speedily come to resemble that of the German teacher, who is commanded to inculcate in his pupils a love of monarchical government and to point out all the evils attendant upon republicanism and democracy. But it is not intended that the history teacher should indulge in political doctrine any more than in religious, and, if one can find a basis of non-controversial morality in the latter, it should be still more easy to do so in the former. What is required is political morality—not political dogma. Still, I do not deny that the history teacher who has this work to do will require a particular training for his work. The old idea, which unfortunately still survives to a surprisingly large extent, that history is a subject which can be left quite safely to the form master or mistress, must absolutely disappear. History must be taught only by those whose academic career has trained them in the habits of thought and furnished them with the time for consideration of those subjects which they are to endeavour to hand on to their pupils. No one now imagines that modern languages can be taught by those who plodded through a French or German grammar book in their own youth. No one ever did think that science could be taught by any but those who had made a special study of the subject; and, until it is realized that history is as purely a subject for a specialist as either modern languages or science, to discuss new methods of teaching history will be futile. If possible, the training of the history teacher is more imperative than the training of any other; for, while a man may save his country without a knowledge of French or of oxygen, he will never save it unless he has been trained to judge exactly, and to weigh fairly, the *pros* and *cons* of a question.

The second aim of history teaching is, to all seeming, no less abstract than the first. It is to train the child in the application of logic to the affairs of daily life by arousing in him a perception of cause and effect as exemplified in the history he studies. There is no doubt that this can be done even by an inexperienced teacher so that the children come to ask instinctively the question "Why?" or to search carefully for the answer if the question be put to them. The impossibility of keeping this end in view furnishes one objection to the concentric method and to the wide surveys which are so highly recommended at present. Suppose, for instance, that the concentric method is adopted in a school; so that with a junior form it is necessary to cover the history of England in a year, allowing perhaps an hour and a quarter a week. The teaching must, owing to the limitations of the children's capacity and lack of time, be very incidental, and a system which would miss out all connexion between, *e.g.*, Alfred and Norman Conquest deliberately sets on one side an opportunity of making quite small children regard the Norman Conquest as only the culmination of a period of foreign intercourse. A child can nearly always understand why he is punished if the explanation be careful. There is no reason why he should be led to regard the Norman Conquest as an isolated and unforeseen event. The same criticism holds good even with regard to upper forms that are taking a survey of

European or World history. If the period be too wide, the links of causation must inevitably be lost, and with them one half of the value of historical teaching disappears.

It will probably be urged in objection to this view of the end of historical teaching that the logical training can be better supplied by other subjects—by mathematics and by science. But mathematics, though there is no doubt that it does supply a very real and valuable training in logical habits of thought, does not involve the application of those habits to the matters of daily life in the same way as history does; while scientific experiments which aim at proving the result invariable, given certain conditions, are, as a rule, too obviously prearranged by the teacher to carry conviction even to the childish mind. One cannot prearrange history. The facts are there, writ large for all to see; and the results of particular combinations are ascertained—not merely matters of conjecture.

Such, then, briefly, are the ends at which all historical teaching ought to aim. But it must be acknowledged that, in the earlier stages, with very young children, the aim must necessarily be somewhat remote. The child's interest must be won as an indispensable basis of further progress, and this can be done most easily by a dramatic recital of historical events. It is not the working of cause and effect, not the study of character, that interests a young child: it is an incident and event that arouses him, as we can see quite clearly in his games, where he loves to be acting. Still, the ultimate aim need not be forgotten. We can teach a child to reason, even when we are telling him a story.

It will be remarked that my list of the aims of a history teacher does not include several ends upon which particular emphasis is laid at the present day.

In the first place, what we may call the emotional end is very generally insisted upon. It is regarded as a primary duty of the history teacher to arouse in the children sympathy with, and enthusiasm for, the men and the ideals of past time. Now it is not to be denied that this is a duty, but it is to be regarded not as an end in itself, but as a method by which the other ends may be attained. Just as children learn far more readily from some one whom they love and respect in their daily life, so they will learn the ideals which should direct the life of a citizen more quickly from those whom they have come to know and love as personal friends in history. Moreover, to expect from children adequate sympathetic comprehension of the characters of great men is to demand from them more than they are able to give. To a child all men are either good or bad. Most men are both, but it is a rare child who will not look at you with surprise and disappointment when you refuse to class a man under either heading. Character is the outcome of heredity and education, and manifests itself in action. To consider and judge of the character of a man requires, therefore, not only a large amount of information, but also a conception of what is meant by the "spirit of the age." Children cannot assimilate the details, nor can they form an atmosphere for themselves. There is very great danger in consequence, that their views of a man's character will either be a reproduction of those of the teacher (than which nothing is more to be

regretted) or will be hasty and prejudiced deductions from insufficient data, by which we shall defeat our second aim. "It will be wiser, therefore, not to deal to any extent with character until comparatively late in a school career. Any teaching which is based upon the statement that "history is the biography of great men" is likely to be as mistaken as the statement itself is incorrect.

Secondly, it is customary nowadays to demand that a child shall cover a very large field in his history. The case of the child of ten or twelve years of age who had never heard of Nelson is frequently quoted as an example of the awful ignorance which was a result of the old system. Hence the introduction of the concentric system, which provides that the child shall have heard of Nelson, but leave him quite doubtful whether Nelson or Marlborough won the Battle of Hastings. Also during his school career the child must acquire at least a boying acquaintance with the great men (men, mind you—not measures) of Greece and Rome. Moreover it is quite impossible to go profitably through life without knowing anything about Charles the Great, Mahomet, Louis XIV., and Napoleon; therefore a course of European history becomes necessary, while it is as well to teach ancient history so that the Scripture lessons may be illuminated by a knowledge of the Pharaohs and the ancient condition of Babylon.

Now the fallacy in this system is the fallacy which to a considerable extent underlies the whole of modern education. It presupposes, what as a result of the supposition is slowly coming to be true, that the child has no desire and no power to discover anything for himself. What he is not taught at school he will not know. A very slight extension of the system will lead to the introduction of a nursery into girls' schools. Nothing is more to be deprecated than that schools should become cramming machines. That was said to be the great fault of the old-fashioned methods. It is no less the danger of the new. Time and space and personality are all alike such vague conceptions to the child that to introduce him to too great a variety of history is to lead to hopeless confusion. Some idea of the difficulty a child has to contend with may be gained from the following exercise. Take some date, perhaps a well known one like 1588, and try and fix in your own mind what was going on in every country of the world at that time, connecting with the events the great men. It is a most difficult task even for an adult mind. And yet we are surprised to find that the child has difficulty in realizing contemporaneous events.

The great objection that was urged against the periodic system was that one particular child spent his school career studying the reign of the Tudors, and another spent it studying the reign of the Stuarts. Now, that result was not a corollary of the system adopted, but was due either to bad management in the arrangement of the syllabus or to the evil influence of examinations, which would prove fatal to any system. There is absolutely no reason why the periodic system should not be an entire success, and give the children a complete outline of English history, if the history be divided up into a number of periods, and one each assigned to a form, so that, as a child goes up through a school, he will take the periods consecutively. This does not, of course, provide for the abnormal child; but, then, he will provide for himself. Nor does it give any place for examin-

ations in the middle part of a school unless the subjects for examination can be controlled by the school. Another objection which might be brought is that the later periods will be studied by older girls, and therefore will be better known. That is inevitable; but the evil need not be great, because, in the first place, the later periods are not only more complicated, but also supply better example for the inculcation of practical lessons; and, secondly, the knowledge gained later can always be used to illuminate and illustrate the earlier periods. It ought to be quite possible to work in the whole history of England in the middle part of the school up to, e.g., Form IV., so that, even if a child does not stay to pass through all the higher forms, he will nevertheless have obtained this outline.

When a child in the middle part of the school has thus gained a fairly adequate knowledge of English history, he might be introduced either to ancient (Greek and Roman) or to European history. In the upper classes the work will certainly be controlled by examination, and only the enlightenment of examiners will prevent the earlier work being spoiled by an incomplete or ill-considered *finale*.

Considerable emphasis is laid at the present time upon the connexion between history and geography. Now, by many teachers this is taken to mean that it is necessary to teach your pupils where the places you are talking about are. That is necessary, undoubtedly; but far more than this is involved by the proposition. A careful study of history forces upon one the conviction that many of the great problems of history are insoluble except in the light furnished by geography. Nowhere can this be seen better than in the case of Greece. The whole of Greek history is the outcome of the physical characteristics of the country, and children to whom those characteristics have been pointed out will see in the career of the Greek city-states the rational outcome of the given conditions. Again (and these are only the more hackneyed and obvious examples), consider to what extent the history of England has been influenced by her position on the globe. Remote from the centres of civilization, and, so slow to develop, she therefore reaped the fruit of the labours of other nations; the link between the new world and the old, so cut off from Europe that she could safely ignore the internecine struggles of Europe, and build up for herself an empire over the seas; blessed with a soil and a climate which enables the necessities of life to be obtained only by the exercise of patience, foresight, and endurance—is not here a summary of the whole growth of the British Empire? In the wide surveys of history, now so generally advocated, the geographical basis is the only one which will furnish any satisfactory links of connexion and enable the children to understand the great movements which dominate history.

There has been a considerable amount of discussion concerning the teaching of history lately, as there has been on every other subject in the school curriculum. But it seems to me that the true method of teaching history has still to be found.

The Historical Society will, it is hoped, do much; but I feel convinced that its function will not lie in the direction suggested by a recent writer in *The Journal of Education*. A scheme for the teaching of history in secondary schools

issued by such a body (though, of course, it would not, and could not, be compulsory) would carry with it sufficient weight to influence very considerably head mistresses and assistant mistresses who had not strong convictions of their own. The scheme, however, should depend upon three factors, every one of which varies in every school. It depends upon the character of the pupils; upon the predilection and capacity of the teacher to whom the history teaching is entrusted, because the teacher deals best with that in which he is most interested; and, finally, upon the opportunities provided by the locality for any particular study. For instance, for a school in the centre of London to teach the history of London is good: the children have the requisite topographical knowledge, and the facilities for expeditions are many. But for a North of England manufacturing town to adopt the same subject would be foolish: for them any economic problem should have special interest. We may hope, then, to obtain much help from the Historical Society; but we must not, therefore, give up one iota of our freedom. We may have common aims; but common methods will only be successful when they are so far individualized as to become unique.

The London Journal of Education.

The Teaching of English in Schools which study no Foreign Language.

BY STEWART A. ROBERTSON.

There is a story told of an old Scots lady on whom the newly inducted clergyman of the parish called. She was somewhat deaf, and used an ear trumpet. She gave the minister a chair, seated herself, placed her ear trumpet in position, and said: "Now, sir, gang over the fundamentals!" Well, I like to begin with fundamentals, and I hope you will not deem me pedantic when I begin with a definition of education. Education is the process by which a child is brought into an intelligent and interested relationship with the world of matter without him and the world of spirit within him and within all men past and present.

The movement of this process is by three stages. It proceeds by training of accurate observation to power of correct inference and capacity of adequate expression. More simply, the purpose of education is self-expression, and the process of education should be such as to ensure that the self shall be a self worth expressing. All subjects of instruction must be tested and their place determined by their power to aid the development of self, and by the help wherewith they strengthen its capacity of self-expression. The claim of language, and especially of the mother tongue, to a high place, if not even the highest, among the subjects of an instruction plan is based on the thought of language as an embodiment of experience. It is by variety and depth of experiences and the reactions to them that human beings are educated. Language, the soul of a people, the embodiment of national experiences; while also an instrument of thought embodying the universal element of experience, surrounds the mind of youths with a wider range and a deeper reach of experience than any other sub-

ject. Civilization took its rise in human intercourse, and the study which most bears on that intercourse—the study of human speech—is capable of being the most efficient instrument of education. So much, I think, is now admitted by all teachers who have felt the breath of the modern movement in education. The task that faces teachers of this generation is to discover how to arrange the teaching of the mother tongue so that the maximum value may be gained from the subject. Consideration of the study of English shows that the subject falls readily under three heads or aspects. The first is the study of English as matter of thought—what Prof. Laurie calls the *real* study of language. The second is the study of English as a mental discipline—the formal study, of special importance in schools which study no language save the mother tongue. It is the case of such schools, and specially of pupils between the ages of twelve and fifteen years, that we are mainly considering. The third aspect is the study of English as literature—the æsthetic study, with its ethical implications.

If, then, these aspects are regarded from the side of the pupil, it will be seen that good teaching of English should secure (1) the ability of the pupil to understand the thought of others, spoken or written; (2) ability to express his own thoughts adequately through speech or writing; (3) ability to gain pleasure and aid to moral endeavour from English literature. This is but to say, in other words, that an educated man or woman should display intelligence, power of expression, and capacity of joy. It is in the last that most of us fall short, and I am sure the loss is due to the insufficient place accorded to the study of literature in schools. The first purpose is mainly sought after in the reading lessons and the talk and explanation which have them as centre.

There are few things more interesting than to follow the history of the development of English reading books. In the post-Reformation days they were either the Scriptures or collections based on the Scriptures. In the eighteenth century—century of reason and common sense as it thought itself—moral tales and didactic compositions, such as the prudent Franklin wrote, formed the staple contents. In the early nineteenth century, under influences from Pestalozzi and Rousseau, came the first effort after graded exercises, deliberately formed on pedagogic principles, and the information extracts from which so much was hoped and so little was gained. The contribution of our own day to the theory of a fit reading-book is our consciousness of the imperfections of snippets, and our emphasis on the necessity of providing continuous reading matter, and of affording the opportunity of individual silent reading for which the pupil has been prepared, and on the result of which he will be tested. Every class ought to have a reader containing all matter on which pupils either have, or may be led to have, an interest; a continuous reader for class study, and a large supply of continuous readers for individual silent study, with, in addition, a collection of poems, or excerpts from poems, which the study of one or two lessons will exhaust, and a longer poem which will occupy attention throughout the term. The wise teacher will distinguish carefully between the continuous reader which is for the class and that which is more suited for individual study. Take as examples two books illustrative of mediæval life, Scott's "Ivanhoe" and Stevenson's "Black Arrow." The former is better for

the class; the latter for the individual. "Ivanhoe" has a succession of scenes and groupings of characters—the tournament at Ashby, the siege of Torquilstone, the trial before the Templars, Gurth with his swine King Richard with Friar Tuck, Prince John with his friends—which require study, discussion, explanation, contrastings, the clashing impressions of different minds, that is, the united work of teacher and class; while the other, the "Black Arrow," good tale though it be, is a draught for steady drinking, and may be drunk alone. One must ever bear in mind the double purpose of reading in schools, the giving of instruction and the training of the mind that comes from its being led along the movement of the author's mind. The former purpose should be very largely the aim of the silent reading. It is almost always a waste of time to read in class—that is, with the voice—what should merely be read by the eyes. Not very long ago in a school I heard a class of girls read as their reading-lesson, instructions on the washing of flannels. Such a lesson has no right to be regarded as a teaching of English. Stella said of Dean Swift that he could write beautifully about a broomstick; but I fear that Dean Swift's genius would have failed to invest with charm the washing of flannels. I should like to support my contention that we should encourage eye-reading to a greater extent in schools by reference to Mr. Wells's book, "The Making of Mankind." His chapter on the beginnings of mind and language is very suggestive and helpful.

A most important aspect of the reading lesson is the introductory talk on the subject of the lesson. Its purpose is, to use Herbartian phrase, to bring above the threshold of consciousness such an apperception-mass as the new ideas which the lesson will give may most easily and firmly link themselves to. Such preliminary talk will be mainly done by the teacher; but the talk after the lesson—the post-prandial talk may I call it?—will be carried on mainly by the class, the teacher swaying and stimulating its expression. Such introductions must, however, be introductions, and present only what is relevant to the lesson. An evil that has arisen from the introduction of extracts from standard authors into reading books is the supposed necessity of giving to the pupils much detail about the author's life. Such detail as stimulates is valuable; but it is very easy to overdo this. The lives of authors are, for the most part, uninteresting and incomprehensible to children. Boys and girls understand more readily actions and motives which lead to achievements of another sort, the deeds of warriors, rulers, discoverers, inventors. The subtle relations between an author's experiences and his work are of older minds. For example the only necessary introduction to the reading of "How they brought the Good News from Ghent to Aix" would be to tell how Browning when weary on shipboard, thought longingly of a gallop over the downs, and set himself to gallop imaginatively astride a peerless horse, the hero of the poem.

But we shall not make our reading lessons do all they might do if we regard them as but dealing with the matter of thought; we must turn the mind of the pupil to the words themselves. The thought of words as living things, having a history, undergoing changes of form, and, oftener, changes of meaning of reference is a thought that appeals readily to children. Children naturally personify, and words are more to them than the mere vesture of thought which the logician con-

siders them. There is a sense of reality in children which makes them rejoice to discover there is also a reality about words, that they are not mere arbitrary signs but living powers. And it is, of course, our English tongue out of which we should seek to draw some of the rich treasures which it contains, from which we should endeavour to remove the veil which custom and familiarity have thrown over it. To those who ask: "Should etymology be a part of English study?" my answer is: "The history of words within the language, their changes, mishaps, elevations, degradations, defacement, or disguisings, will add greatly to the interest and value of English study. The worthlessness of the old method of teaching derivations to a boy who knew no Latin or French is ever present to me; but the interest that may be stimulated by consideration of such variations from an original, as we have, to take a very simple instance, in the words *one*, *once*, *only*, *alone*, is undeniable. So for a boy who has no Latin to discover the community of form and partail communism of meaning in *infer*, *prefer*, *infer*, *confer*, &c., is a training in scientific method which the old way of giving him *fero* and its derivatives successfully avoided. All this will tend to create a language consciousness in your pupils, than which few things seem more lacking at the present day. Those of you whose pupils come from districts in which some of the forms of the old dialects survive will find often help therein. As to the method and range of such teaching it must never transcend the possibilities of the pupil's stage of development. As to the matter, much of it you will, of course, gather for yourselves; for the teacher of English is as watchful ever to note variations of words and usage and other explanations as the botanical teacher to spot a new variety. But much of that sort of work was done for the last generation in Trench's "English Past and Present," and for the present generation in an American book, "Words and their Ways in English Speech." It is in such work most prominently that a training to use of dictionaries will be effectively begun—use by the pupils, controlled by the teacher. On the table of every teacher of English there should be a good dictionary, an etymological dictionary, a dictionary of biography, a gazetteer of England, a gazetteer of the World, an atlas, an historical atlas, a dictionary of phrase and fable—I wish I knew a good one—Haydn's "Dictionary of Dates," a work like Dr. Brewer's "Reader's Handbook," a Concordance to the Bible—there is no good teaching of English that does not illustrate and justify and verify from, and relate to, and connect with, the study of the Bible—and, of course, Chambers's "Cyclopedia of English Literature," or, if you cannot get that, the, "Penny Poets." And all these should be used by the pupils under supervision of the teacher. Besides the reading books that are studied in this method there should be much that is read cursorily, precisely as a wise classical teacher reads one book of the "Aeneid" by slow steps and another by swift leaps. An aspect of method which in my opinion is often forgotten is that whatever is dramatic should be taken dramatically. How often has one heard a scene from Shakespeare read in succession instead of in allotted parts! We have the same neglect of an admirable method of securing interest and effectiveness in regard to simple verse. If I were hearing a class read or say "The Lay of Horatius," I should choose a minstrel, or half a dozen minstrels, and have the speeches of each character taken by one pupil. The gain in interest, the stimulus to vivid realization, the education to sense of contrast and power of vision of relation are all high.

Though I outlined the teaching of English into three great sections, the frontier lines are by no means clear; for, as you have noticed, much that is done to help the pupil to understand the thought of others is also help to the ability to express his own thoughts, which is best discussed under the rather ill-omened word "composition." The beginning of all success in express thought in writing must be the encouragement to express thought orally. From the earliest stages the time-table of every school should show hours set apart for oral composition, colloquial lesson, or whatever you like to call it. One of the dangers that all language teachers nowadays must guard against is forgetfulness that language is primarily *use of the tongue*, and that the written form is a convenience for conversation at a distance of space or time. One has heard some learned professors wonder that Shakespeare was not more of a bookman, forgetful that he was a talker and a listener, and learned much at first hand that we, sometimes unnecessarily, prefer to learn at second or sixtieth hand. He learned more of Greece and Rome from his talks with Ben Jonson than from his small Latin and less Greek. So our modern family gathering silent around the fire, each individual with his head buried in his favourite magazine, is the somewhat natural outcome of the banishment of colloquy from the school—ordered, purposed, deliberate, controlled colloquy.

Those of you who like to ballast your practice by classic analogies may remember that Erasmus sought to teach Latin by "Colloquies." His subjects make interesting topics still—a shipwreck, a soldier's life, hunting, gardening. But you'll never get your pupils to hold forth with such freedom as his boys are feigned to do. Fluency varies from boy to boy, still more from boy to girl and from nation to nation. I used to be amazed at the eloquence of the scholars in French *lycées*. A master would suggest an idea and off they would set with the impetuosity and throbbing vigour of a motor cycle. By such encouragement of oral composition we are leading pupils on the best way to facility of written composition, and overcoming that power of inhibition which a blank sheet of paper seems to exercise so strongly. It would be however, to succumb to the influences which cause some schools to make light of the deliberate study of the art of composition if I were to put as even the main part of its function the acquirement of mere facility of expression. The teaching of composition must be shown to tend to the development of character, like all other subjects that have fit place in an instruction scheme. It will only do so if attention is at all times centred on clear realization of thought and on the linking of thought with thought. Were it otherwise, were mere facility of pen or voice the first purpose, teachers of English were but modern Sophists, and would deserve the rebuke of Socrates in the "Gorgias" on their fellows of old. Rossetti said that many minor poets were minor poets because they neglected the fundamental brainwork of poetry, and it is the fundamental brainwork of teachers and class upon the subject of composition that gives composition its high value in character forming. After the very earliest stages are over the teacher's effort must be by degrees to stimulate to self-directed action. There is usually too ready contentment with mere reproduction. Word memory is so strong in children that they will often give a teacher's tale or theme in *his* words and their order and so avoid all save the lowest of mental working. If a tale is told in verse, to

be retold in prose, the child is pushed on towards self-action. Another method that leads to this is what I call "embroidering." Take a very childish example—the story of Red Riding Hood. As usually told, the tale simply says that the wood-cutters saw the little girl pass through the wood. Well, develop the wood-cutters episode. Give each of them a name, make them talk about the trees they have been cutting, their own little girls, and Riding Hood as she comes in sight. Children like to fill up, to enlarge, to embroider. Education is setting minds to work on the untold. Children are not like the novel reader of whom Mr. Barrie tells—the woman who read the first chapter of a novel and then turned to the last to see "if she got him." Children are interested in the between, not the end. The lack of power to see the between is a great hindrance in English teacher. How often in a school history book is a battle told all from the one side: the other side being an unknown, unrealized, almost unliving something—the enemy! Think, in contrast, how Shakespeare clears and brightens his picture of the English camp before Agincourt by his picture of the French camp. All this needs an imaginative teacher; but the wise teacher knows that it is precisely his power of imagination that he must cherish in his soul, as the maidens cherished the flame of Vesta. More than lunatic, or lover, or poet, must he be compact of imagination to succeed in the work of teaching English.

A similar initiation of self-energy is secured by the use of pictures as the basis of composition work, and a library of suitable prints—not the art for art's sake picture, but the anecdotic literary picture, which ultra-artists despise—should be available in schools. So, too, will help all the composition exercises that are based upon other studies, especially on geography and history. Of course, the degree to which self-energizing enters will vary. To give an account of the products of Bengal reacts little on self-development, and the teacher of English must not let himself be made the serf of other subjects by a frequent submission of himself or his classes to such work. But to picture in words a typical Bengal village or landscape is as high and valuable a task in composition as it is in geography or ethnology, or, indeed, in any school subject and its worth is proportionate to the power of self-action which it calls forth. I have known teachers of English who were very keen about giving their pupils complete liberty of choice of subject for composition. The arguments I have heard have been usually two: that choice is a valuable mental exercise, and that in the school of life there is no teacher to choose men's subjects. In practice I have found that a wide choice relaxes rather than strengthens a boy's powers; that he wastes time in surveying, and finally chooses in a panic of hurry. To the second argument it may be replied that unlimited possibility of choice is the rarest thing in life. Most men who write or speak have their subjects chosen for them. It is only when called upon to write "something" in a young lady's album that one feels the bounds of possibility illimitably enlarged. Perhaps that is why such "somethings" are usually poor stuff. But, in truth, are we not looking at the matter from the wrong end when we hunt after variety of subjects for composition? Let us look at it rather as a problem of discovering interests. What interests have my pupils? To what interest can I by talk and lessons stimulate them? When these are found or created, the pupils have the thought or emotion for the mould-

ing. For the secret of good composition, teaching, and by that I mean composition that makes for development of character, power of choice vision of the better, recognition of method, the secret lies in letting the pupil always feel that he is handling thoughts that are genuinely his, or essentially of his sort, not the thoughts of an older person on another epoch.

The next necessity of the subject or topic is that it must afford opportunity for the arrangements of the ideas in some sort of unified form. For example, "How I spent my vacation" is rarely a good topic: it is likely to bring forth a string of disconnected ideas coordinated only by a series of "ands." A much better topic would be an incident or scene in the vacation familiar or unfamiliar; for both characteristics, familiarity and unfamiliarity, give unity of experience in the youthful mind. The special success of the letter form of composition arises from the letter form or the relation to the recipient giving cohesion and unity to a mass of ideas. The advantage might be pressed further, and children be encouraged to answer their own letters or a letter of their teacher's, or a letter of some supposed person specifically placed or conditioned. A letter that is an answer to another letter gets under way more easily and develops by reference to the earlier letter.

These canons of reality and the pupil's interest strike at once against the moral-idea topic which prevailed much in schools some years ago, and survives too often in examination papers. Few of the people who set examination papers seem to be in touch with modern methods of teaching, and many English teachers are constrained to bow in the house of Rimmon for the sake of examination results. It is unpsychological in the extreme to set such general-idea topics for children of twelve or thirteen years to whom knowledge comes through the individual, the particular, the personal, the concrete. If you do think it necessary, however, that your pupils be trained to write on abstract topics like Patience, Justice, Alien Immigration, or the Benefits derived from Colonies, let these essays be written confessedly on the basis of the some writer's treatment of these topics. It is better it should be done confessedly than furtively. For myself, however, I should block up the avenues to platitude until a very much latter age—say sixteen or seventeen years—when a consciousness of style would be being awakened. The sedulous apes of that age may approach platitude in safety: its proximity checks the mind of earlier years.

When I discuss questions of teaching English with teachers of the classics a point usually raised is: "How in your English study do you hope, or try, to get the educative effect that is got in translating from Latin to English?" Now, no one who has ever taught, or ever studied fairly, Latin or Greek, but is fully convinced of the great educative effects of translation, penetrating to the central thought, the recasting of it in the logical order of the modern mind, the minute consideration as to shades of meaning, the regard to the associations of words. All that is of supreme effect on the mind at a fit stage, though I think our classical friends judge that stage reached too soon; and, in actual fact, the boy of twelve, thirteen, or fourteen years gets but a small proportion of these possible benefits. On the other side, I would point out that an advantage which composition in English has over the vaunted linguistic training of translation is that it

has the *element of structure* which is absent in the other. In translation the pupil must follow some one else's thought, and, generally speaking, cannot depart from the order of statement of the original. Such restraint can never be so evocative of personality and power of expression as the onward movement by the mind that develops its own thoughts. The former gives training, but this gives discipline, the self-initiated energizing of intellect upon a subject presented for its consideration.

Even if we ignore these limits, it is possible to get some of the benefits of translation within English study. I do not know to what extent paraphrasing is a common exercise in English schools. Its value has been greatly debated. Prof. Laurie says: "A more detestable exercise I do not know: it is vile use of pen and ink." Mr. Courthope Bowen ranks it very high: "Paraphrasing is the unpacking and exhibiting clearly and at large of the whole meaning of a passage which in the author in question is expressed in a brief or condensed or figurative form, perhaps at times rather suggested than expressed." Dr. Laurie's onslaught has its justification in the statement that to paraphrase Milton or Shakespeare is to turn the good into the inferior or bad, and to degrade literature. The truth that underlies this view is that much of the effect produced by beautiful poetry or prose is analogous to that produced by music, and is lost when the language or its order is changed. But even delicate æsthetic impressions have an intellectual or logical substratum which a pupil should be trained to recognize and often to express in his own words. When the former predominates paraphrasing is profanity. There are few passages that any one should dare to paraphrase in Shelley, in Keats, in Spenser, or in Shakespeare at his highest; but when poetry passes over its border line into rhetoric, when it becomes what Prof. Masson calls "metrical intellection"—out and all save a very few poets cross that line sometimes, and many poets often—paraphrasing is not only an admirable exercise, but a necessity. The dispute has arisen because it has not been realized that there are paraphrasable passages and passages that are not paraphrasable. You may not—you should not—dare to paraphrase

It is twice blessed,

It blesseth him that gives and him that takes;

but you may—and must—paraphrase

The quality of mercy is not strained,

as the thought there is not directly presented: it is given, as it were, in a husk or shell. One does not say: "Nuts should not be shelled because strawberries have no hulls." To seek to paraphrase Wordsworth's "Daffodils" were a crime, but there are a hundred passages in "The Excursion" to translate which into fluent, simple English is an exercise equally admirable for the matter of thought which it will convey and the power which it will confer. So it is with Cowper, at all ranges save his highest; so it is with Young and Dr. Johnson; so supremely with the metaphysical poets; and so frequently with Browning. And the same exercise is possible in prose, though less widely.

Such work in its higher range goes rather beyond the age to which we have limited ourselves; but it should certainly be *begun* in these years. Some of you

will stare when I go further and say that boys of fifteen may be led to gain sense of word value, width of vocabulary, and skill in word arrangement by occasional metrical composition. Children can be early interested in the mechanism of verse—the simple forms, of course—and to write technically correct blank verse is quite within their power. Of course the teacher will ensure that no member of the class esteems these exercises poetry. It is a good thing, I used to say to my boys, for any one to write verses, if only he will burn them.

To the question of how far the teacher should supply a scheme of method for his pupils' composition I think the answer is that he will provide such by his introductory talks, and not set down on a blackboard a certain fixed succession of headings. That there should be a method is the necessity; that an essay should have paragraphs, each of which has its own dominating idea, is an aid to thought. The suggesting of lines of treatment by the teacher is good; the imposing of fixed headings may be a hindrance to mental action. Like Queen Dido, I am not ignorant of sufferings on this point. In one winter of my school-days we wrote a series of essays on wild animals, and had an elaborate scheme of headings imposed on us. It began with "habitat" and ended with "uses." It was easy enough to say something under the last heading when one wrote of the elephant, but difficulties beset one when the alligator had his turn. What we nearly all did was to take refuge in the statement of some apparently religious platitude—it was in Scotland, I ought to remind you—as this: "The wonderful adaptation of the alligator to its life on the banks of a river bears testimony to the wisdom of the great Artificer. The alligator is therefore of use to exalt the soul by thought of the wonders Omnipotence."

Little time remains to speak of the place of grammar in the study of English. The question is a battle-field which the smoke yet covers. But, frankly, I am on the side of the grammarians, though with modifications and limitations that would have seemed treason to Lindley Murray or even Mason. I have no belief that grammar teaches correctness of speech or writing; but I claim for it a place, not before twelve years of age, as a training of mind that is valuable and a help to the interpretation of thought, as well as an aid to the mind just beginning to understand abstract conceptions. Previous to the twelfth year I should be contented with enabling a pupil to distinguish the whole logical subject and the whole logical predicate, and I should do that in connexion with his composition, oral and written. Formation of plurals and feminines and past tenses, which are not essentially grammar, would, of course be treated in word-building lessons. Then, when in the twelfth year I began to help the child to form the conceptions we call "parts of speech," I should lay all stress on the study of *function*. Clause analysis and parsing become alike valuable and interesting to young minds if they are regarded as inquiry into function and determining of relation. The old deductive method, which began with the definition or the rules, would be cast aside for the inductive method of discovering the rules from examples. Multiply examples and be chary of defining. A very young child observes the difference between a transitive and an intransitive verb if he sees the action done or can picture it; but the usual definition darkens counsel to the young. There are few definitions that can be given to children which do

not limp on one or more legs. The further study of grammar should be real and take cognizance of none save real distinctions of use or function, and we should have done once for all with the fantasmas from Latin grammar which made a fascinating subject a horror.

The essential thing is that a pupil shall be able to separate any ordinary English sentence into its component parts and state the relation of each to the others. So treated, grammar is not dull and crabbed, as some folk suppose, but a realm of perpetual discovery, to move within which has such results in the bracing and clarifying of intellect as only the study of mathematics can surpass. The alert discrimination which such study of grammar gives is a factor in that building up of *personality* by contribution to which all good teaching of English may confidently claim to be judged.—*The London Journal of Education*.

The Advantages and Fallacies of the new Method of Teaching French.

The following address was delivered by OTTO SIEMANN, Esq. (Clifton).

Mr. Chairman, and Gentlemen,—Allow me in the first place to thank you and your Committee for kindly inviting me to address you to-day; and then let me ask your indulgence if I have not carefully prepared a paper for you, and let me hope that you will not expect from me a learned address. I have come here as a practical schoolmaster, and I wish to talk about a practical question in a plain manner.

Novelty is an article which has always been in request the world over, and it undeniably has some attractions even for the most conservative people. No wonder then, if men of every profession and trade who wish to attract notice have at all times labelled their inventions and methods as "new." Especially is this epithet applied to methods designed to meet cases of great difficulty, such as, for example, the learning of a foreign language. On every occasion when a method of this kind is brought before the world we find that it receives a warm welcome, especially from the inexperienced teachers and learners, because it is hoped that at last some genius has discovered a panacea for all drudgery, for all hard grind, and that, henceforth long persevering study will be no longer needed to reach the end desired. There are, on the other hand, men who know from long experience that the task of learning a foreign language is beset with great difficulties which nothing but sheer ignorance can underrate and which nothing but long continued and patient labour can overcome. Teachers and students of this class are wont to look askance at these new methods, and to dismiss them without a thought. But as the inexperienced and ignorant form the large majority, the title "new method" has never lost its charm for those who wish to make a sensation. As long ago as 1592 there appeared one of these new methods professing 'to teach in a very short time and in a very easy way how to pronounce French naturally, read it perfectly, write it easily, and speak it fluently.' Since then down to our own time many others have come and gone,

They have failed to retain a permanent hold on the public because they promised impossibilities. They all pretended to get to the kernel without cracking the nut; they were all one sided and based on insufficient knowledge of the science of language. "Novelty has something in it which inebriates the fancy and not infrequently is as transitory in its effects as other intoxication, leaving the poor patient, as usual, with an aching heart." In recent years the latest new method has made its appearance, and it is with this that I wish to deal more particularly to day. I do not propose to hail it as a panacea or to dismiss it without a thought, but to examine it carefully on its merits in the light of practical experience.

Before doing so it may be interesting shortly to review its history. It is significant that the reform movement received its first impulse from a work entitled "*Zur Reform des lateinischen Unterrichts*," by Dr. Hermann Perthes, which appeared in 1873-75. Since then the question of the method of teaching modern languages has gradually come to be one of the burning questions of the day as well in Europe as in America. Since the appearance of Professor Viëtor's pamphlet "*Der Sprachunterricht muss umkehren*" in 1886 and the formation of the Association Phonétique in Paris, the subject has been a standard topic at numerous conferences in Germany, France, England and America, and has led to the publication of at least three periodicals and numberless pamphlets and articles in educational books and reviews and in many daily papers. Moreover a flood of school-books written on reform lines have appeared. The authors of these contributions, however, are far from being agreed on the principles which should be followed. Their opinions are widely divergent, and largely, even diametrically opposed one to another. What is generally understood by the "New Method" in this country is the adoption of the principles of the extreme party of reformers on the Continent, of which Professors Viëtor (Marburg) and Paul Passy (Paris) are the leading champions, and whose views have been followed in certain French text-books in England. These gentlemen, as far as I understand them, are of opinion that the method which has been applied to the teaching of modern languages during the last fifty years both on the Continent and in this country is fundamentally wrong and must be given up altogether. What they lay down as essential for the teaching of French, as far as Preparatory Schools are concerned, may be summed up as follows:—(1) The pupil should learn French in very much the same way as he has learned his mother tongue; that is to say, by the direct association of the French words with the objects or pictures of the objects the names of which he learns; (2) The lessons should be carried on almost entirely in French; translation into English should be avoided as much as possible so as to keep up the direct association of the French words with the thought they represent; (3) Translation into French is not only useless, but positively harmful; (4) Grammar should be kept in the background until the pupil has acquired a fair knowledge of the spoken language; (5) Class-books should be written entirely in French, so French-English or English-French vocabularies or dictionaries should be allowed, whatever grammatical instruction is given should be

given in French, and whatever grammar is used should also be written in French; (6) The natural surroundings of the child should be made the starting-point in the teaching of French, and 'Realien', that is to say a knowledge of France and the French, their customs and habits, their institutions, trade, and industries, should be imparted.

It will be observed that the introduction of this system makes a fairly clean sweep of the traditional mode of teaching French, and that the aim of the new method, at the Preparatory School stage at any rate, is to be purely utilitarian—the ability to understand, speak, and write colloquial French. The French Ministry of Education has frankly adopted this accomplishment as the ideal of modern language teaching in France. I will read to you the words which make this startling confession to the world. "*On renoncera résolument à faire de l'enseignement des langues vivantes soit une gymnastique intellectuelle, soit un moyen de culture littéraire.*"

In Germany, America, and England, only comparatively few teachers so far have accepted the new method in this pure and unadulterated form, but certain concessions have been made by most practical and experienced teachers to the demands of the reformers.

The question arises as to whether we are prepared to accept any of the principles advocated by the champions of the new method, and whether we are willing to throw mental discipline and literary culture to the winds for the sake of greater fluency in speaking. I will take the various points seriatim and state what my own experience tells me they are worth.

(1) *The pupil should learn French very much in the same way as he learned his mother tongue; that is, by the direct association of the French words with the objects or pictures of the objects the names of which he learns.*

The reason given for this alluring mode of procedure is that in this manner the pupil will learn the language in the most natural way and will avoid English altogether. He will associate the words immediately with the thing, and no English will interfere when he wishes to express himself in French. For example:—instead of telling a class that 'a dog' is in French '*un chien*,' a living dog is shown and the teacher says, '*Voilà un chien.*' Of course it is not always easy to show the real object; in that case pictures may be substituted. There is no harm done by doing so, but I think if you try seriously to follow this idea no harm will soon come; that is to say, many cases will arise when you think you are giving the boy a certain idea, and the boy mistakes you and conceives another idea. It is difficult indeed to ascertain whether a pupil really grasps what you say unless you test him through the medium of English. Professor Sweet, referring to this point in his book, *A Practical Study of Languages*, says:—"*Now the great advantage of a word as opposed to a picture, is that it is practically an epitome of this whole group of ideas, and the equation *chapeau*. But enables a German to transfer readily such a group of ideas from his own to*

the foreign word. This the picture cannot do; for even if we ignore everything but the shape of the hat, we must either give pictures of every conceivable shape of hat—tall, hard felt, soft felt, clerical, sailor, cocked, etc.; or else risk implying that chapeau means tall hat, not hat in general."

Therefore it seems rather doubtful whether it is wise to go very far in the direction of teaching new words by objects or pictures *only* and without making quite sure that the pupil really understands what the teacher means. The easiest way of doing this is, of course to give the pupil the English equivalent, or ask him for it. There is no mistake then; we all know where we are. Moreover it is not easy to produce either the object or a picture when you come to qualities and abstract ideas. However, to show you how such a difficulty is to be overcome, I will give you one little illustration from a book entitled *Hints on teaching French*, which explains how the new method should be worked. In trying to convey to the pupils the meaning of the sentence, "La poule est utile," the author says,—The pupil may hesitate about 'utile,' but he will be greatly helped if you point to hat, horse, cherry-tree, and say that 'la poule' has this quality in common with them, and he will scarcely remain uncertain when he is told that the caterpillar has just the opposite quality. Or the teacher may proceed as follows:—Can I say, "La poule est fidèle"? No; that quality is the reason why we keep dogs. We keep hens because of their eggs; therefore we say "La poule est utile."—I expect it must take a teacher five minutes to go through this ingenious process of conveying to boys the meaning of 'utile,' and what is more, I am doubtful whether they would know what "la poule est utile" means after all this. May way would be to say, "La poule est utile" is in English "The hen is useful."

A little story which I read in an educational paper and which bears on this point may not be out of place. An inspector examined one of the brilliant classes taught on the New Method, where nothing but French is spoken. The inspector at some stage in the lesson made an observation, and the master replied, "C'est une bonne idée." The inspector thought this would be a good opportunity for testing the pupils as to their power of understanding a simple French sentence which had not been prepared beforehand, so he asked the class whether they had caught the meaning of the sentence the master had said. The prompt answer was of course "Oui, Monsieur." But when he asked a boy to say it in English, he received for a reply "It's a bonny day!" I have quoted elsewhere another example which is equally interesting. The boys had read a passage on the death of Cæsar; when the Conspirators come into the Senate, Brutus walks up to Cæsar, and the others are in great consternation because they think they will be betrayed; but Brutus turns round, and the passage goes on: "Il les rassura d'un coup d'œil." This passage had been previously read and was supposed to be known as part of the term's work. On being asked in French "Que fit-il? Qui est-ce qu'il rassura? Comment les rassura-t-il?" the boys answered correctly, and the master was evidently satisfied that the boys knew perfectly well what all this meant. I took the liberty of asking them what it meant in

English, and the answer I received was, "He re-assured them with a blow in the eye!" Gentlemen, this is no doubt amusing, but to have our schools invaded by a method which proceeds on those lines seems to me very serious indeed.

I think you will agree with me that it is practically impossible to avoid English, and it is also scientifically unsound. The idea that you will always translate from English when you wish to speak French if you have learnt the word first through the medium of English is absurd. If I understand the process aright it comes to this. When I show my watch to a class and say, "Voilà une montre!" it is a delusion and a snare to imagine that I have thereby avoided the English word "watch," for the moment I raise my watch, the word "watch" is in their minds, even before I have time to say "une montre." So I have plainly failed to produce the desired effect. The moment I move my hand the pupil is following me with his thoughts in English. If I touch a pen and say, "Voilà une plume," he has the word "pen" in his mind before I say "plume." These are facts, and nobody can get round them. And I do not think there is any reason for getting round them; in fact I am convinced that it does not matter in the least how the word gets into the pupil's head the first time, whether through English, or from a picture, or from the thing itself. In whatever way a pupil has learned the word "montre" when he wishes to use it in French the word 'watch' occurs for some time to his mind first, but the English recedes by-and-by. When a boy has seen and named a watch or used the French for "watch" or any other word say, fifty times, and I show him the article or call up the French in his mind by the corresponding English word, he will gradually use the word without associating it with the word in the mother tongue. That is the whole point. What is called "thinking in a foreign language" is to my mind nothing else but the art of casting thoughts very quickly into the mould of a foreign language. You will never be able to do that until you have practised words and phrases very much in the same way as a musician practises his scales. Repeat them often enough and I think you will find that the link that lies between the object and the French, the translating link, will vanish gradually and completely, whether you learnt the words representing the thoughts originally from English or from a picture or from an object.

Both on theoretical and on practical grounds the removal of English from our French lessons, therefore, would be a great mistake, as it would lead to disastrous results.

(2) The second article of the new creed is: *Translation into English should be avoided as much as possible*; no doubt for the same reason. Most of us attach a certain disciplinary value to translation, and it may have struck you that there is something wanting in the confession of faith of the followers of the new method. You will find nowhere any allusion to what I would call training of the intellect, accurate thinking, mental discipline. That is absolutely absent, and no such appeal is made. At the initial stages everything is learnt by sheer imitation and memory. Now, I consider translation into

English, apart from being an excellent test to find out whether pupils know what the French means, is an excellent mental discipline. To translate even a simple piece of French into English is no mean mental performance for a boy of twelve or thirteen years of age; that is to say, to translate the thought accurately into the other language without adding anything to it and without taking anything from it is a piece of work which a boy is generally capable of doing, and which it would be a thousand pities not to get him to do.

(3) The next point is that *translation into French should be barred altogether as positively harmful*. I quite understand that teachers who have taught their boys on the system which I have been trying to describe to you would fight shy of subjecting their pupils to an examination in which they were asked to reproduce a given piece of English in French. They do not like to undertake such a task, because they say, translation is an art that lies beyond the reach of school-boys, and constant translation does not teach one to speak a language. That is true in a certain sense, no doubt; that is to say, if I were to undertake to translate Ruskin into French or German I should find it required great art: but there is translation and translation, and there is plenty of translation which is an art that can be performed at all ages of school life, even the very lowest, though it may be questionable whether it is wise to insist on it there. Translation into French is to be replaced by what is called "Free Composition." That, no doubt, is very much easier, because if I want to express my thoughts about this room and I do not know what "ceiling" means in French I shall not say anything about the ceiling. Or if I form in my mind a certain construction in English, which I want to put down in French and in which the word "although" occurs, I at once remember that there is something uncanny about "quoique" and I am not going to use it. That is a convenient way of dealing with difficulties, but it is not education. However, we are told that the boys' productions are original. They are indeed! All the difficulties are avoided, and I cannot see how they are to add to their knowledge, because as soon as they have a certain limited vocabulary and a certain power of framing a sentence in French they will never get any further. If instead of asking the pupil to write a free composition you give him a piece of English to translate, he may find himself face to face with a sentence beginning with "although," and then there is no getting out of it, he must now show his hand. That is a very different matter, and it is a very much more severe test than that of writing a piece of free composition. The question would be whether this test is too severe to apply to a child in a Preparatory School. I believe it is a very severe test at the beginning, and I think it would be well to avoid translation into French during the first year. But those of you who do not agree with me may safely try translation into French at the earliest stage, and I do not think very serious harm will arise from doing so. But as an experiment I should like to leave it alone for twelve months.

(4) *The systematic study of Grammar should be kept in the background until the pupil has acquired a fair knowledge of the spoken language.* I have tried this

plan myself for a term in the bottom form of our Junior School, because I thought that, if it failed, the least harm would be done there. My results were these. At the end of that term most of the boys could pronounce quite nicely, and they could speak to some extent; but when they came to writing it was rather different, they had lost, what I might call, their "grammatical conscience." My further experience is derived from examining several schools in which French had been taught by the New Method. In one of them the teacher was one of the most enthusiastic reformers; he took endless trouble to carry out the new ideas; but after two years I was only able to say that the pupils certainly had advanced in pronunciation, that they could understand a little French that was spoken to them, but all the written work was so deplorable that I came to the conclusion that if that was to be the result of the New Method in English schools it would be better to dispense with modern languages altogether and to teach something else. I do not think, however, that English schoolmasters, as a rule, will be prepared to give any subject an important place in their schools that is not a valuable educational instrument. Now, I am strongly of opinion that modern languages if properly taught are a suitable subject for the development of accurate thinking and literary taste, in short, for a real liberal education. Though I am not one of those who fall foul of the Classics, and although I am convinced that there is no mental or literary training that is superior to that which can be obtained from a sound study of the Classics, I find that there are many boys who have not the aptitude to get to that stage of their Classics where the great wealth of classical literature will produce its results, and for those boys it is perhaps better to proceed along the lines of modern languages, which, after all, must give a somewhat similar training as the classical languages, both in mental discipline and literary culture. One of the reasons why sound teaching of all that is essential in grammar should be insisted on at all stages is that, as in the case of translation, it is an excellent means for mental training. I would retain it also for a practical reason, which I have already alluded to, that unless a boy knows his grammar he cannot speak or write correctly. Any one who is taught by the New Method may acquire a fair pronunciation and a certain power of expressing himself in French, but he does not learn the language. He can only talk waiter or courier French, and to learn to do that is not of sufficient educational value to make French an important subject in a Preparatory or a Public School.

(5) *Class-books should be written entirely in French, no more French-English or English-French vocabularies or dictionaries should be allowed, and whatever grammar instruction is given should be given in French, and when a grammar is used, it should also be written in French.* I need not repeat here what I said about the importance of being quite clear in one's teaching and the dangers that arise when we try to avoid the mother tongue. Additional difficulties appear when a grammar is used which is written in French; the pupils find it exceedingly difficult to learn from such a book; they are slower to grasp in their minds and to retain in their memories what is presented in a foreign tongue. Also the use of dictionaries written entirely in French has its drawbacks. I will give you an illustration of one aspect of the question, which

is the result of an experiment which I made the other day when one of my colleagues came in who takes an interest in these matters—I was trying to find out the meaning of the word ' tiroir ' by the New Method. I found

(a) Tiroir, s.m. petite caisse qui s'emboîte dans un meuble, au moyen de deux coulisses, et qui se tire.

(b) Caisse, s.f. (La capsu, boîte) coffre en bois pour l'emballage; coffre-fort; bureau où l'on paye; tambour.

(c) Coulisse s.f., rainure sur laquelle on fait glisser un châssis; rempli d'une étoffe dans laquelle on passe un lacet; le lacet même; se dit, au théâtre, des châssis de toile mobiles qui forment la décoration des deux côtés de la scène; lieu hors du parquet des agents de change à la Bourse.

Here my friend interrupted my further research into the mysteries of the meaning of ' tiroir ' by suggesting that the word would not be at all a bad one to set as a holiday task. All this comes back to the same point. If I want my pupils to have clear ideas in their minds I must present these ideas in the first place in English; and if I want a boy to know what ' un tiroir ' is, the simplest and clearest way is to tell him in English that it means ' a drawer. ' I may add that the Government of Prussia have forbidden in their schools the use of books that are printed entirely in a foreign language.

I need not tell you who are practical teachers what a difficult thing it is to bring home to a set of twenty boys even the simplest grammatical rule, and I will not lose a minute by explaining what the result would be if you were to try to do this in a foreign tongue. The idea is so futile that it is really not worth discussing. On the whole, every explanation that breaks new ground must be given in the first instance in the mother tongue, and therefore, grammars and dictionaries entirely written in French are a real danger to sound teaching.

(6) *A knowledge of France and the French should be taught.* This seems to me a sensible idea, and in the proper place of a well organized curriculum a certain amount of instruction in ' Realien ' i.e., the study of French life and institutions should be given; only it must not degenerate into unimportant trifles and must not interfere with the reading of good literature. " Realien " might have a certain place in the middle part of a Public School. But we should never lose sight of the main object we have in teaching French, viz., to develop the pupil's mind and to acquaint him with the classical literature of the seventeenth and eighteenth centuries and the great literary productions of the nineteenth century.

I have tried in a somewhat crude way perhaps to demolish this magnificent structure of the method which has bewitched so many teachers, especially in England. I come now to the constructive part of my address. I believe you will be interested to hear something about phonetics. Phonetics are not necessarily included in the programme of the new method. There are representatives of the new method who think they can teach pronunciation quite well without phonetics. I was one of the adherents of this view only a few years ago. I tried to teach French without phonetics because I thought the spelling of French indicated sufficiently what the pronunciation ought to be. I have since

made experiments in various classes and have come to the conclusion that the phonetic system is undoubtedly a great help. But I do not think it is necessary for a teacher of French to become a great student of phonetics. All that is required is the determination to take the matter up seriously. It means in the first place the learning of a new alphabet, or rather of a dozen signs which do not exist in the ordinary alphabet. You who are acquainted with the teaching of the Greek alphabet will admit at once that there is no very great difficulty in teaching boys a dozen new letters. It is, however, important that each sound should be learnt in connection with each sign, and that the pupils should understand clearly that in the phonetic alphabet each letter stands for one sound, and for one definite sound only. If I write in phonetics an ordinary ' o ' this letter will always represent the vowel in French (*not*) and never that of ' pomme. ' The sign used for the vowel of ' pomme ' in the alphabet of the Association Phonétique, which is the most practical phonetic alphabet, is ' c ' upside down, viz. c. which is the easily written and is quite distinct. It takes a fortnight at the rate of four hours a week to teach the signs and the sounds. There is some difficulty to be overcome with vowels like é in French *été*, because the pupil will take this sound to be identical with ' a ' in English ' late, ' and it will be necessary to make it clear to him that ' a ' in ' late ' consists of two sounds in English. Gradually you get the pupil to hear for himself that he really utters a diphthong every time he pronounces the letter ' a, ' and then he will be prepared to pronounce *été* properly. These are only a few instances to show you how important it is to analyze the sounds of one's own speech and of the language which one is going to teach, if a good pronunciation is to be taught. As soon as the sounds have been mastered individually and the signs representing them have been learnt, the pupil proceeds to read a phonetically printed text. The ordinary spelling is withheld, and practice in reading and pronunciation is derived entirely from oral lessons and the reading of transcribed passages. The help afforded by the phonetic transcription is very considerable, but it must not be expected to do everything. It is absurd to think that it is easier to pronounce the vowel of ' mur ' when the word is printed phonetically. The sounds must be taught by the teacher. When that has been done, the help of phonetics becomes apparent, because the pupil finds it quite easy to keep his pronunciation right as long as he has the phonetic transcript before him, which clearly tells him which sound he has to use, whilst on the other hand the ordinary orthography would mislead him over and over again, because it represents the same sound in several ways (*not*, *beau*, *chevaux*), and uses one sign for different sounds (*not*, *pomme*.) A Frenchman may teach a class for a considerable time and yet the boys may not pronounce at all correctly, even if the teacher has paid great attention to pronunciation. The reason for this is that only a few boys can learn to pronounce properly by mere imitation, while the whole class will acquire a good pronunciation if the master teaches the sounds properly and makes the pupils practise on phonetic texts until their pronunciation is established. It is necessary that the teacher should not only know himself how to pronounce but should also be able to explain who the correct sounds are formed. He should, for instance, show his pupils that

the vowel in 'vue' is the same as in 'vic,' only that in 'vue' the lips protrude. I hope I have made my position about phonetics clear to you, and have little doubt that any of you who may try to work their beginners' classes on phonetics will endorse what I have said. To sum up: my proposal would be—(1) That in a preliminary course on phonetics, covering the first fortnight of a boy's first term in French, the individual sounds should be taught and *pari passu* the phonetic symbols representing them. (2) That the main object of a first term's French course should be to impart a good pronunciation by the help of phonetically transcribed texts. (3) That the lessons should be entirely oral (speaking and reading), and that no writing should be done and no book containing texts printed in ordinary spelling be put into the hands of the pupil.

A sound basis being laid for a good pronunciation of French, I would then proceed to teach in the second term to read and write in the ordinary orthography the same lessons with which the pupils in the previous term have been made familiar orally.

"I am now attempt to sketch a French lesson such as I imagine will commend itself to Preparatory Schoolmasters: (1) Develop the vocabulary of the lesson with the help of concrete objects or from a wall picture, giving at the same time the English of each word. The use of objects and pictures used with proper discretion is to be commended, inasmuch as it helps to make the impression on the mind more vivid and therefore more lasting, but no restriction must be laid down with regard to the use of the mother tongue. (2) When the vocabulary of the new lesson has thus been drawn out of the class by question and answer, and each new word has been written on the blackboard in phonetic transcript, the list of new words should be read by individual boys and by a whole class in chorus, so as to afford some additional practice in the pronunciation of these new words and to give boys an opportunity for asking the meaning of any word they may have forgotten. (3) The passage in which the new words occur, and in which the scene is described that the master has developed by the help of the picture, is now read from the book, and orally translated into English. (4) Questions are put in French on the passage read and the boys answer these questions first with their books open and afterwards with their books closed. (5) Attention is now called to certain forms of words or constructions occurring in the passage which has just been read and translated, and these are systematically grouped together on the blackboard; the result being the illustration of a certain grammatical point, such as the tense of a verb, the use of the partitive article, the use of the subjunctive, etc. In this manner the grammar is deduced from the reader and explained by the teacher. (6) An exercise which is made up of the vocabulary of the reader and applies the grammatical points explained by the master is now taken in hand. The evening work should consist of learning the grammar or preparing the exercise previously gone through in class, or of writing the answers to questions put in French. There are many other ways in which boys may be usefully employed during their evening preparation, but I would strongly urge upon you the

necessity of first going through the work orally in class. It is better to prevent mistakes from being made than to correct them. It is obvious from my previous remarks that the reading book at the Preparatory School stage should be carefully constructed so that each new passage contains a good number of examples to illustrate the grammar which is to be learnt in connection with it, and on the other hand that it should not contain other difficulties with which the pupil is not yet acquainted. It is in my opinion one of the most fatal blunders in the new method that it attempts to plunge the pupil all at once into the spoken language without attempting to graduate the difficulties or to eliminate irregularities. I do not think it is reasonable to expect beginners in French to master more than one difficulty at a time. If the first lesson, for instance, brings home to them the present tense of the verb *être* and a number of nouns and adjectives in connection therewith, it seems dangerous to introduce in addition a few forms of irregular verbs, partitive article, etc. In fact I am convinced that no sound knowledge of grammar will be established, unless it is introduced gradually and systematically in the initial stage to the exclusion of everything that is irregular.

The principles underlying the method which I have tried to sketch to you may be summed up as follows:—

(1) That the sounds of a foreign language should be acquired first, and the orthography after the sounds have been mastered and a fair pronunciation has been acquired by the help of oral teaching in connection with phonetic texts.

(2) That the reader should form the centre of modern language teaching; each passage should introduce a definite chapter of grammar, and all forms and constructions not previously mastered should be excluded.

(3) That grammar should be taught and applied systematically from the beginning as an excellent mental training and the only basis on which correct speaking or writing in a foreign language can exist.

(4) That translation is not only for practical purposes necessary, but is also a valuable instrument for the development of exact thinking, the development of taste and literary appreciation.

(5) That French should be taught as a living thing and as the language of a living people, *i.e.*, the spoken tongue must receive great attention, and correct speaking should form an integral part of the modern language teacher's work.

(6) That the highest aim of all modern language teaching at school must be the gradual development of scholarly habits, of literary taste, of culture in the highest sense of the word.

A method which embodies these principles contains to my mind all that is good in the old and in the new, and may be described as a 'sound' method, inasmuch as it starts with the 'sound' instead of the 'letter' and aims at giving a 'sound' training. In other words it appreciates the utilitarian value of modern languages, *i.e.*, the power of understanding and speaking the vernacular, but it insists on sound mental training and literary culture as its highest objects.

I hope you will be able to give to the teaching of French in Preparatory Schools four hours a week—six lessons of forty minutes each. That, I think, is a minimum. It is important that the boys should have a lesson every day. A break of a day is a serious hindrance. Six days at half-an hour a day is, I think, better than four times during the week for an hour each time. If you try that plan it will prove a curious fact in arithmetic, namely, that three is greater than four, because I believe that you will attain better results with the six half-hour lessons than with the four lessons of an hour each. I believe also that for boys of ten or eleven an hour is tiring. Any man who will take the trouble to spend a few hours in grasping the system which I have tried to explain will be able to pick up enough about phonetics and about pronunciation from the book to be able to teach his class intelligently and successfully, and he will soon be able to ask questions in French, other than those printed at the end of each passage.

I am afraid I have kept you a quarter of an hour longer than I ought to have done; but I hope that you will at least give the matter I have brought before you some consideration; and if you will do me the favour of trying it practically in your schools, I have no doubt that you will necessarily arrive at the same conclusions that I have arrived at after ten years' very careful and patient experiment at Clifton and examinations in other schools. We have at Clifton now a modern side for which I longed for many years. We give to French a lesson every day, and to German four lessons a week in the lower and middle Fourths, and a lesson a day from the upper Fourths upward. This plan was only introduced twelve months ago, but I believe it will prove to be permanent, and I think it will be unnecessary for you to undertake to teach German in Preparatory Schools at all, but advisable to teach French to your classical and modern boys together. If you give the time to French which I ask, and teach them on sound lines, they should be excellently prepared for the entrance examination in French at any Public School, and the modern side boys can devote the time the classical specialists must give to Greek to their mother tongue. A boy so prepared in French and English with the usual attainments in Latin and Mathematics is certain to prosper on a modern side as it now exists at Clifton.

Notes (Indian).

An important conference upon technical education will be held at Naini Tal, beginning on the 18th August. Experts from all parts of India have been invited to attend. A representative of the Cawnpore Chamber of Commerce is also to be there.

The Empire Day was celebrated in some of the schools in Madras on May 24th with great enthusiasm. The school buildings were in some cases very tastefully decorated and the children were entertained with music, games and short dramatic representations. Loyalty to Crown and attachment to British Rule in India were roused in the hearts of the student population.

The services of Mr. A. Chattertoq, Director of Industrial and Technical Enquiries, will be placed at the disposal of the Government of the United Provinces for the month of August 1907.

The Hon'ble Mr. J. Andrew has been appointed Government Member of the Victoria Technical Institute *vice* Mr. A. E. Castle-Stuart Stuart resigned. Mr. M. E. Couchman has been appointed Additional Government Member of the same Institute.

We regret to learn that doctors at home have confirmed the opinion of the Madras oculists regarding Dr. Miller's eyesight. We earnestly hope that under skilful treatment he will be able to regain his lost power of vision.

It is with much regret that we have to record the death at the Lawrence Asylum, Lovedale, of the Rev. A. W. Atkinson, M.A., Principal of the Institution. He was formerly Headmaster of Bishop Corrie's Grammar School, Madras, and subsequently Principal of La Martiniere, Calcutta. He was one of the most enthusiastic workers in the field of European education and with unique and varied experience as a teacher and with a strong attachment to the profession he was successful wherever he worked. He initiated a few reforms at Lovedale, and would have carried out several other desirable reforms had not the cruel hand of Death snatched him away rather prematurely. He was a brilliant graduate of Trinity College, Dublin, and in India he won a reputation which may well excite the envy of many others engaged in the same calling. The Rev. Mr. Foley of Bangalore has, we learn, been appointed to be the successor of the late Mr. Atkinson.

An important scheme for the development of technical and industrial education in Bombay, Bengal, the United Provinces and the Central Provinces has, it is understood, received the necessary sanction and will shortly be introduced.

We have much pleasure in welcoming "The Elementary School Journal," a monthly Telugu Journal of education intended for the use of pupils and teachers in the elementary schools in Telugu districts edited by Mr. V. Narasimharayadu, B. A., L. T., of the Rajahmundry Training College. We congratulate the enterprising editor on his attempt to supply a real want. Some articles are from the pen of men of experience. Mr. M. Kameswara Rao, B. A., who was for years assistant Lecturer in the Government College, Rajahmundry, before he was appointed Assistant Inspector of Schools has written an article on 'Methods of teaching, old and new', and his words are entitled to much respect. Mr. K. Sudarsana Rao's 'drill lesson through game and song' will furnish interesting reading. The journal promises to prove very useful to those engaged in education in the Telugu districts and we heartily wish it every success.

COMMERCIAL EDUCATION IN CALCUTTA.

A FAILURE.

It is evident that the evening commercial classes at the Presidency College Calcutta, have had very disappointing results, at all events as regards certain subjects. About a month ago the Director of Public Instruction informed the Bengal Chamber of Commerce that there was little demand for lectures on Political Economy, Banking and Currency, Commercial and Industrial Law, Annuities and Insurance—all of which subjects had been prescribed. Mr. Earle invited the Chamber to show cause why they should not be expunged from the syllabus. The Committee of the Chamber has given its opinion in favour of their retention. It is suggested that the syllabus should be made more widely known and that money prizes should be offered. Students who stood at the head of the examination lists in the above named subjects would be, the Committee believed, more useful office assistants and their greater value would be reflected in their pay. Hence it might be anticipated that more interest might be taken in the courses. This is doubtless the ideal view, but perhaps Mr. Earle as well as the Committee of the Chamber would be well advised to satisfy themselves as the actual circumstances—how far, for example, the lectures (and lecturers) are calculated to attract, and whether the subjects are so treated as to render the lectures practically useful—*The Statesman*.

* *

* *

* *

MUSLIM EDUCATION IN BOMBAY.

THE ANJUMAN-I-ISLAM.

The history of Mussalman education in Western India is practically the history of the Anjuman. The majestic building that stands in Hornby Road is a standing sign of Mahomedan educational progress on this side of India. Thirty years ago the circumstances were such that the foundation of the Anjuman-i-Islam or such an educational institution would have seemed to be an idle dream. Mahomedan Society was steeped in prejudices. Mahomedan learning and prosperity were at their lowest ebb. The disorganised state of the country that existed prior to the spread of British influence had opened a wide field for military service to the Muslim races and thus they had almost entirely given up their literary pursuits. This ignorance of the Mahomedan masses, combined with the memories of past greatness, damped all their desires for education. No one could predict at that time where the Mahomedans would drift in the new field of competition. It was then that a band of earnest and farseeing men came to the rescue of the community and subsequently became a source of salvation. The Anjuman-i-Islam of Bombay, with about Rs. 1 lakh in its endowment fund and Rs. 50,000 besides at its disposal for the award of scholarship in the encouragement of primary as well as higher education, and splendid palatial buildings consisting of a high school and a hostel, which must have cost about Rs. 2 lakhs, was not set up in a day. It is the fruit of considerable labour and the hard work of a number of devoted Mahomedans. The records of the Anjuman bear eloquent testimony to the work of these men, and also go to make their names permanent.

The difficulties were great, their work was hard. In spite of insuperable difficulties with which they had to contend, in spite of misunderstandings and misinterpretations of their motives these workers, who had formed themselves by this time into an Anjuman, agitated, memorialised the Government, and spread information among the Mahomedan public, till at last their efforts were crowned with success. The palatial buildings referred to above, which is no mean copy of the vast pile of buildings of the premier Railway Company which has done so much to civilise the western part of India, contains a High school where the Mahomedan nation receive education on Western lines. This High school is destined to work in a greater circle with greater advantage, and is, therefore, the cynosure of all Mahomedan eyes, whence might radiate to every Mahomedan home and college the salutary influence of education. All Mahomedan eyes are directed towards this institution in which their future is centred to see one day that it will blossom into a college. The school is doing very disinterested work against very unfavourable odds and yet has proudly held its own.—

Advocates of India.

* *

* *

* *

EDUCATION OF CRIPPLED CHILDREN.

In the May number of the Kindergarten Magazine two articles are devoted to the problem of the Education of crippled children. Considering their number in every part of the world, the question is of supreme importance. Many of those who are crippled are enabled, if properly taught, to support themselves in after life. Instead of enlarging the ranks of the vagrants, beggars, and criminals, they may become useful citizens. With careful attention they may even throw off their disease and become able-bodied men and women, self-respecting and self-supporting, instead of becoming at the best patient sufferers dependent on others, at the worst cringing hypocrites relying on the misplaced charity of the benevolent. When it is remembered that in large cities there are thousands of such cripples, the social importance of the question cannot be over-estimated. At the same time the problem of educating them is extremely difficult. In the first place, while it is true that some cripples are sharper than the average boy, about ten per cent., are feeble-minded and the problem of the education of the feeble-minded is very complicated. Moreover it is a nice question to decide whether any particular boy is so feeble-minded as to require special attention. Again, it would be extremely difficult to secure a suitable superintendent, so many qualities such as patience, tact and sympathy would be required in the highest degree. Once more, the education of cripples would be very expensive. Special seating accommodation and apparatus would be required for each individual, doctors' fees would be large and in many other ways such schools would be costly, though it is possible that the manual work done by the cripples might bring in some return, as is the case in Denmark. Is it too much to hope that some day the authorities in India may find it possible to devote funds to such important work?

CIRCARS STUDENTS' CONFERENCE.

PRESIDED OVER BY MR. J. A. YATES.

The third Northern Circars Students' conference met yesterday, most institutions in the Circars except the Rajahmundry and Vizagapatam Colleges, being represented by forty delegates, who were enthusiastically received by the committee. Mr. B. Suryaprakasa Row, Chairman of the Reception Committee, exhorted them to profit by this annual friendly gathering.

Mr. J. A. Yates presided over a debate in which several delegates took part. He complimented them on the promise they gave of becoming good speakers and advised them to think more deeply and talk of practicable things.

After a photograph had been taken in the evening, a Public Meeting was held in a spacious pandal erected for the purpose. All the leading gentlemen were present and Mr. Yates delivered a short Inaugural Address, advising students to learn to take an intelligent interest in philanthropic and other public movements under the proper guidance of teachers and not rush headlong in any venture.

Instructive papers on Self-Improvement contributed by Messrs. Penn and Narasimham, were read and greatly appreciated. Rao Bahadur Venkata Krishnayya Naidu impressed on the students the necessity of keeping their heads above water at the present time of excitement and like true swadehites leave politics to their post-scholastic career.

Two other members read papers on "Education" and "Should students take part in Public Movements?" The delegates are taking a lively interest in the sports.

**

**

**

REPORT OF THE MADRAS TEACHERS' GUILD FOR 1906.

Presented at the annual meeting held on the 16th of March 1907 at Pachaiyappa's College.

Strength.—The number of ordinary members is now 225 as against 165 in the beginning of 1906. The addition may be accounted for by our having formed a Primary Section of the Teachers' Guild; and that is vigorously working under the sympathetic guidance of Miss Parsons, who suggested its formation about the beginning of last year, and it actually began its work in March last. In the Primary Section there are 48 members, leaving for the High School and College Section 177. We have, moreover, one affiliated association one honorary member and five associates.

Changes.—Among the changes of the year, we have to report the loss of the services of the following members who were on the Managing Committee:—Dr. S. Sathianadhan, Mr. J. A. Yates, Rev. C. Pollard, and Mr. V. S. Srinivasa Sastri. Mr. Pollard's place as Secretary was taken by Mr. K. B. Ramanadha Iyer, and Mr. C. M. Barrow was made Vice-President in place of the latter

The Guild has not appointed any Vice-Presidents in place of Dr. S. Sathianadhan and Mr. J. A. Yates.

The Kellett Library.—The thanks of the Guild are due to Messrs. Macmillan & Co., and other publishers who have been sending specimen copies of their educational publications. We are not able to report that the books have been as well used by members as they might be. And this, we think, is due to the fact that the books are not easily got at, located as they are in different and widely separated Colleges. We may mention that the Director of Public Instruction has agreed at the instance of Mr. Barrow to make the duplicate copies of books in the office of the Text-Book Committee available for the use of the members of the Guild by having them placed in the custody of Teachers' Guild. We may also state for the information of the Guild that the local agent of Messrs. Longmans, Green & Co., and associate member of the Guild, Mr. W. Doraiswami Iyengar, has offered to present the Guild with a shelf of about 400 books, the publication of the firm. The Kellett Memorial Fund which now amounts to Rs. 900 has now been, on the recommendation of the Council, invested in the Savings Bank Section of the Madras Bank.

The Reading Rooms.—The Reading Rooms were as usual in rotation at the following Colleges:—The Madras Christian College; Wesley College, Royapettah; and Doveton College, Vepery. The Guild thanks the authorities of the Colleges for the loan of the Reading rooms and the members of their staff who acted as Honorary Librarians. As the Lady Superintendent of the Presidency Training School for Mistresses wrote to say that she could not allow the shelves of books to continue in the school, they have been removed to Wesley College.

The following are the periodicals subscribed for, during the year—

Weeklies—The Academy; The Graphic; The London Times; Punch; The Spectator and The Athenæum.

Monthlies.—The Bookman; The Educational Times; The Journal of Education; The Practical Teacher; The Review of Reviews; The Educational Review (New York); School World; School; The School Review (Chicago); School Science; Pall Mall Magazine; and East and West.

The Guild has had to pay the entire subscription for the periodicals out of its own Funds as the Director of Public Instruction refused the usual grant.

The thanks of the Guild are due to the publishers of the local publication, Educational Review, and the Educationist, and also to Mr. C. M. Barrow, sometime editor of the Journal of Education, who were good enough to present us with copies of their respective journals.

Though it does not properly come in the report for the year 1906, we may mention that because of the Director of Public Instruction's refusal to give us a grant, we have had to stop subscribing for some of the costly English periodicals.

The Registry.—If the Registry was not much of a success before, it was still less a success in the year under report. The opening balance to the credit of the Registry was Rs. 5-10-6. The receipts amounted to Rs. 3; expenses of

postage, &c., came to Rs. 4-6-0, leaving a balance of Rs. 4-4-6. Only one teacher entered his name, and he was a non-member. He has not been able to secure any appointment as the terms offered by the managers were not tempting enough. We may mention that we had as many as 15 managers applying for men, and it is a great pity that the Guild was not in a position to help them in getting suitable teachers.

The Provident Fund.—The question of the Provident Fund formed one of the subjects of the Educational Conference of December last. Mr. Theobald's eloquent address on the subject resulted in a resolution unanimously adopted by the Conference, copies of which were sent to His Excellency the Governor and to the Director of Public Instruction. As the attitude of the Governor and of the Director of Public Instruction seems to be sympathetic, we have every reason to hope that some good may result from our activity in this matter. The resolution was worded thus:

"The members of the Madras Educational Conference respectfully and strongly urge Government to appoint an Educational Officer under the Director of Public Instruction to consult with representative educationists and an actuary chosen by Government, to formulate a definite scheme for the establishment of a Provident Fund for recognised teachers working in schools under private management.

The conference would suggest that such teachers be divided into three classes, (1) Primary, (2) Lower Secondary, (3) High School and College grades, and that the teachers' contributions and benefits be uniform in each grade."

Insurance Scheme.—Since the last report, we have had no new members benefiting by the scheme. We are afraid the advantages of the scheme are not widely known and we take this opportunity of bringing prominently to the Members of the Guild that they will benefit themselves and their families immensely by availing themselves of the facilities the Guild places at their disposal in the matter of insurance.

Meetings.—Ten meetings of the High School and College Section and ten meetings of the Primary Section of the Guild were held during the year.

Visit—On the 15th of September last the Members of the Guild paid a very enjoyable visit to the King Institute of Preventive Medicine, Guindy. Captain Christophers, I.M.S., the Superintendent of the Institute showed the party over its several departments and took considerable pains to explain the varied activity of the Institute. The Guild wishes to convey its grateful acknowledgments of the courtesy and instruction that the party derived from the visit.

The Educational Conference.—Under the auspices of the Guild the annual Conference of the Educationists of the Presidency was held in the Museum Theatre, Pantheon Road, Egmore, on the 17th and the 18th December last. His Excellency Sir Arthur Lawley, opened the proceedings with an address to the members of the Conference. The thanks of the Guild are due to

His Excellency, to the gentlemen who presided, at the various sessions of the Conference, and to those who read the papers.

The expenses which amounted to about Rs. 50/ were met by special subscription.

Messrs. Longmans, Green & Co., and Macmillan & Co., sent Educational Exhibits of Apparatus and Educational publications. We take this opportunity of thanking them.

Obituary.—The Guild deeply regrets the loss of Dr. S. Sathianadhan, who was one of the staunchest workers on behalf of the Guild. He was of the early band of organisers of the Guild and in him the Guild had a steady friend and adviser. His wise guidance and enthusiastic support of the profession will be greatly missed by the members.

Finance.—The Honorary Treasurer reports that the Guild is at a low ebb in the matter of finance. Omitting the Rs. 200 set apart as trust-money for Benevolent Fund, the balance in hand at the end of the year was only Rs. 22-4-1. The straitened circumstances of the Guild are due to the unexpected withdrawal of the Government Grant. Now that we have ceased to subscribe for the costlier journals we expect to be on the safe side of the account.

* *

* *

* *

We have received the following circular announcing the forthcoming Educational Exhibition in Madras. We wish the Exhibition every success. To ensure this it is necessary that it should be really representative of the whole Presidency, and not merely a collection made by a few enthusiasts. We therefore hope that all will cooperate, recognising how valuable such an exhibition may be in offering suggestions for apparatus, in encouraging original workers, and in enabling those who visit the exhibition to emulate the excellencies of their fellow-teachers.—*Ed.*

* *

* *

* *

Office of the Secretaries of the Madras Educational Exhibition
Committee, Mint Buildings Post Office, Georgetown.

25th February 1907.

Sir,

It is proposed to hold an Educational Exhibition in Madras about the close of August 1907. A representative committee has been formed to make the necessary arrangements for the exhibition. The exhibits received are expected to be the *bona-fide* work of teachers and pupils in schools for general education. Without the active co-operation of managers and teachers, the exhibition cannot be a success and, therefore, we request you will be pleased to instruct the teachers under you to do their utmost for the exhibition and send to us, through you, the best exhibits of their own and their pupils' work. The following may be taken as a rough classification of the exhibits expected but should by no means be taken to be an exhaustive one.

A. Drawing (a) *Free-hand*—(1) by *pupils* with pencil, crayon or brush on paper, boards, &c., from natural objects, memory, &c., (2) by *teachers* with pencil or crayon on boards or brown paper to illustrate stories and object lessons.

(b) *To scale with rulers*—plans of buildings, measurement of plots of grounds, &c.

(c) *Map-drawing*—outline maps—special maps, illustrating physical features, railways, rainfall, population, &c.

B. Writing (a) *charts* (b) *copybooks*—English and Vernaculars.

C. Kindergarten work :

- | | |
|---------------------------------------|---|
| (1) Wood work—fruit, animals, &c. | (7) Bead and seed work. |
| (2) Clay work—fruit, animals, &c. | (8) Mat weaving—paper, leaf, grass, &c. |
| (3) Pith work—temples, buildings, &c. | (9) Basket weaving—palmyra leaf, date leaf, &c. |
| (4) Rubber work—stamps, animals, &c. | (10) Pricking and coloring. |
| (5) Pricking and sewing. | (11) Garlands of paper flowers. |
| (6) Paper and card board work. | (12) Color work. |

D. Wool work: (1) Knitting (2) Crotchet (3) Map-sewing (4) Cross-stitch (5) Outline (6) Ornamental.

E. Needle work: (1) Plain (2) Fancy.

F. Laces

G. Apparatus and appliances for teaching elementary science, geography, &c.,

H. Collections of objects which serve to illustrate lesson and adorn school museums :—coins, stamps, eggs, seeds, nests, minerals, &c.

I. Teachers, records of work—*Time-tables, school curricula* in detail for one or several subjects, &c.

J. Schemes for correlation of work in the lower standards.

It is hoped that some exhibits of similar work from England will be shown.

Exhibits from any body interested in education will be welcomed but are not open to competition.

It is requested that the exhibits should be sent so as to reach the Secretaries by the 1st August 1907.

The Committee hope to award to the best exhibitors *medals, prizes and certificates*.

We remain,
Sir,
Yours faithfully

Honorary Secretaries.

**

**

**

STUDENTS AND POLITICS.

THE GOVERNMENT OF INDIA'S LETTER.

The following important letter has been addressed by Sir Herbert Risley to the Local Governments and Administrations :—

I am directed to address you on the subject of the principles to be observed and the line of action to be followed with the object of protecting higher education in India from the dangers with which it is threatened by a tendency of both teachers and pupils to associate themselves with political movements and to take a prominent part in organising and carrying out overt acts of political agitation. This tendency is of comparatively recent growth, and the Government of India have hitherto refrained from adopting specific measures to counteract its effects in the belief that parents, teachers and the more sensible or less impressionable students could not fail to realise that the spirit of lawlessness and resistance to authority thus engendered among the young is bound, in the long run, to set back the advance in genuine education, to injure the material prospects of the students and to subvert the traditional foundations of Indian family life. The Governor-General in Council entertains no doubt that the great majority of sensible Indian parents, whatever may be their political opinions, regard with the gravest apprehension the imminent danger that education will be interfered with and the efficiency of schools and Colleges impaired by the minds of the pupils and students being diverted from their proper work and by a relaxation of discipline which must inevitably result from their being allowed to take part in political agitations.

THE CASE OF THE HIGH SCHOOLS.

The question affects the entire field of higher education, but the principles to be applied and the procedure to be adopted will differ according as schoolboys or College students, school-masters or Professors of Colleges have to be dealt with. The cases of pupils of High Schools present little difficulty. In the interests of the boys themselves, it is clearly undesirable that they should be distracted from their work by attending political meetings or engaging in any form of political agitation. In the event of such misconduct being persisted in and encouraged or committed by masters or managing authorities, the offending school can, after due warning, be dealt with (a) by the Local Governments which have the power of withdrawing any grant-in-aid and of withholding the privilege of competing for scholarships and of receiving scholarship holders; (b) by a University which can withdraw recognition from a school, the effect of which is to prevent it from sending up pupils as candidates for the Matriculation Examination.

Action under the first head can be taken by a Local Government of its own motion without reference to the University. Should this measure prove inadequate, and should it be thought necessary to have recourse to the more severe punishment of the withdrawal of recognition or threat thereof, the facts of the case should be reported to the University, which alone is legally competent to

inflict the requisite penalty. In such cases, I am to request that, following the practice of the Government of India in conducting their correspondence with a University, a communication may be addressed to the Registrar through the Rector of the Calcutta University.

AFFILIATED COLLEGES.

The case of students of affiliated Colleges stands on a somewhat different footing. They are no longer schoolboys, but Undergraduates, and a certain proportion of them are Bachelors of Arts, who may reasonably claim some wider liberty of action than is permitted to schoolboys. In regard to them, therefore, the Government of India are not prepared to lay down as a general rule that mere attendance at political meetings as distinguished from taking an active part in their proceedings, would necessarily call for the adoption of disciplinary measures against the College, although, however, they admit that the degree of discipline which is essential for a schoolboy may be inappropriate and even undesirable in the case of a student. Still they must insist upon the principle that Colleges exist for the purpose of education, and they cannot regard with indifference the conversion of such an institution into centres for the dissemination of political doctrines of whatever character. If, therefore, certain students of an affiliated College were to attend political meetings and there so conduct themselves as to bring undesirable notoriety upon their College or to engage in a political agitation in such a way as to interfere with the corporate life and educational work of the place, and still more if such propagandism assumed the form of picketing and open violence, it is obvious that the Local Government concerned could no longer remain passive but would be bound, in the interests of education, to take steps to procure the withdrawal from the College, at any rate for a period, of the privilege of affiliation to the University. In such a case it would probably be desirable in the first instance that a formal warning should be addressed to the Principal of the College by the Director of Public Instruction. If that warning were disregarded, the facts of the case would be reported by the Local Government through the Rector to the Syndicate of the University. It would then rest with any member of the Syndicate to initiate by a formal motion of procedure laid down in Section 24 of the Universities Act.

SCHOOL-MASTERS AND PROFESSORS.

The further question arises how far the participation of school-masters or Professors of Colleges in political movements may be held to call for disciplinary action against the institution in which they are employed. As to this I am to say that the Government of India recognise that in this matter the masters of High English Schools should not be treated as being on the same footing as their pupils. Although it is the firm intention of the Governor-General in Council to neglect no means of preventing schools and Colleges from being turned into centres of political agitation, he does not wish unduly to circumscribe the liberty of individual teachers. A school-master has a right to his own opinions as much as any one else, but he is subject to very special responsibilities, and it is recognised in every civilised country that these responsibilities limit the extent to which he is entitled to give expression to his individual views. If, therefore,

the public utterances of a school-master are of such a character as to endanger orderly development of the boys under his charge by introducing into their immature minds doctrines subversive of their respect for authority and calculated to impair their usefulness as citizens and to hinder their advancement in after-life, his proceedings must be held to constitute a dereliction of duty and may properly be visited with disciplinary action. Still more will this be the case if he is found to have personally conducted his pupils to a political meeting or to have deliberately encouraged their attendance at such a meeting for the purpose of educating them in his own political view. The principle here laid down extends also to College Professors, but it cannot be applied so fully. A Professor is dealing with more advanced and more responsible material than a school-master and it is everywhere recognised that he may claim a larger discretion in respect of the expression of opinion, but he also has his special obligations if he abuses his position by diverting the minds of his students to political agitation, if he encourages them to attend political meetings, or personally conducts them to such meetings, or if while avoiding an open propagandism, he adopts a line of action which disturbs and disorganises the life and work of the College at which he is a Professor, and if the governing body of the College fails to check such abuse, then it is clearly the duty of the University to interfere in the interests of the educational efficiency of which it is the constituted guardian. If the University were to refuse to control its affiliated Colleges in this respect, it would fail to carry out the educational trust with which the law has invested it, and it would be the duty of the Government to interfere.

Notes (Foreign.)

The installation of Lord Curzon as Chancellor of the University of Oxford was arranged to take place in the Sheldonian Theatre in the second week of May. The proceedings had to be shortened owing to his indisposition.

The Duke of Devonshire has been appointed Chancellor of the Manchester Victoria University in succession to Earl Spencer. The Duke's father was the first Chancellor.

Dr. Edward Caird, Master of Balliol College, Oxford, formerly a fellow of Merton, and Professor of Moral Philosophy at the University of Glasgow, has resigned in consequence of ill health.

Cambridge University will confer the degree of Doctor of Laws on the King of Siam, Prince Fushimi, Lord Curzon, Lord Milner, Sir Henry Campbell Bannerman and Mr. Haldane; the degree of Doctor of Science on Sir Clements Markham and Sir Thomas Holdich, and of Doctor of Letters on Mr. S. Butcher, M. P. for the University.

* * * * *

The Lords Commissioners of the Treasury have appointed Lord Reay Chairman, Lord Redesdale, Sir Alfred Lyall, Sir Thomas Raleigh and Mr. A. Guest, Members of the Committee to consider the organisation of Oriental studies in London.

* * * * *

Lord Reay was one of Bombay's best Governors, always known to be profoundly interested in matters educational, while Sir Alfred Lyall, a former Lieutenant Governor of the United Provinces, has written a memorable volume on Warren Hastings, besides contributing numerous valuable articles to high class Journals like the Nineteenth Century.

* * * * *

It is interesting to note that some military leaders are winning their laurels as much in the field of letters as in the battlefield. Sir Ian Hamilton whose work entitled "A Staff Officer's Scrapbook" has been received with universal approbation might, it is sad, have turned out to be a poet of no mean repute, had not the profession of arms claimed him. Among his other works are "A Ballad of Hadji," "Icarus," and "A Jaunt in a Junk." Sir Evelyn Wood is another soldier with a decided literary turn of mind. Major-General Baden-Powell, Colonel Scott-Moncrieff, Sir William Francis Butler, and Colonel Maxse are other Military Officers who have made several useful contributions to literature within the past twelve months. In this connection one cannot fail to recall to mind names like Lord Roberts, Lord Wolseley, Major-General Sir Frederick Maurice, and Major-General H. D. Hutchinson.

* * * * *

THE TEACHING OF SHAKESPEARE.

At a conference of teachers in London County Council Schools there was an interesting discussion on the "Teaching of Shakespeare in the Schools," in the course of which Professor Gollancz, Professor in English Literature, King's College, said that the study of Shakespeare might well be taken apart in the schools, and given special consideration. He would start in the lowest forms of the elementary schools with the story of a play carefully and interestingly told on the ground that what the child cared for was the story, the fairy tale, the romance. It was the pathos germane to the story that attracted the youthful mind. The edition of Shakespeare put into the hands of a child should therefore have minimum of notes, whereas at the present time the "packing straw" was often so heavy in bulk that the child lost heart. Another important matter was that the children should learn by heart passages from Shakespeare, a point which in his opinion, was the kernel of the whole matter. Schoolmasters and

the schools had a great part in the making of Shakespeare. In the old schools there were regulations for the acting of plays annually by the children. He would like to see restored to modern education an annual festival for the enactment of plays, and in that very simple way the work done in the schools in regard to Shakespeare might be vivified. The dramatic instinct of childhood should be used as an instrument of education. The first duty of the teacher was to do his best to make the study of Shakespeare a joy to the children. Shakespeare presented the best ideals of the English mind, and what was wanted was the teacher who had a right conception of how a child should be taught to understand the great theological, moral, and patriotic lessons set out in Shakespeare.—*The Australian Journal of Education*.

* * * * *

In no country in the world is educational enterprise carried on on such a gigantic scale as in the United States of America. At Buffalo, we are told, there is a big public library cooperating with the sixty-eight schools of the place. The wealth of reference at the teacher's command is practically unlimited. Besides books, there are portfolios of all kinds of pictures, culled from series of prints, magazines, periodicals &c, bearing on the various subjects of the curriculum, geographical, historical and scientific. The teachers take a great interest in the cultivation of the child's taste in reading, and try to direct it along desirable lines.

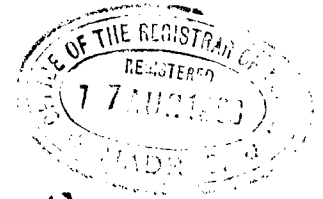
The discipline prevailing in American schools is all that can be desired. The teachers are on the very best of terms with their pupils. The perfect sympathy between the teachers and the taught is all the more surprising seeing how the American child is allowed to dominate in the home. The co-operation of the parents is secured in a practical way. The teachers invite the parent to meet them in the evenings, and then they discuss how each can help the other, the teacher supporting the home authority and the parent, by precept and example developing an appreciation and a respect for the teacher and the school.

* * * * *

The subject of history teaching has of late come very much to the front. Mr. Hearnshaw's article 'Some defects in the teaching of history in schools' published in the April number of the *School World* and 'Some methods and Aims of History Teaching' by Mr. E. M. Wilmot-Buxton published in the April issue of *School* will amply repay perusal. One of them speaks of stereotyped methods, radically bad methods and no method at all as the causes of the failure to awaken an intelligent interest in the subject. Time was when pupils were made to learn whole pages by heart. The head mistress of a very modern school once said: "My idea of teaching history is that a girl should study one small and succinct compendium so thoroughly that when asked 'What do you know of Trial by Jury?' she should say to herself 'That comes on page 104.' Having 'placed' the information thus, she would immediately recall the page so as mentally to read it off—and the thing would be done." If this is the aim of teaching history, then the sooner the subject is banished from schools, the better! other defects are slavish adherence to a single text-book and the

excessive employment of the lecture form of instruction. It is a well-known fact that text-books are not the best of their kind. They are not expressed in sufficiently easy language; nor should they go to the other extreme by the employment of such very simple language that the pupils scarcely ever have to grapple with a new word or meet with a new form of sentence. In the case of young children, oral method is the only one to be employed. The finest book can never rival the living natural voice, and so the story will be always more interesting if it comes first from the lips of the teacher instead of from the printed page. An example illustrating this point is worth mentioning. A boy asked to define a Papal-bull said it was "a peculiar kind of cow, found in Italy, which does not give milk"!

The Indian Journal of Education.



Vol. XLVII.
Old Series.

JUNE, JULY—1907.

Vol. XV.
New Series.

Some Remarks on Character.

It is obvious that any article on *Character* must necessarily be very limited in scope. To deal with the problem of training it would involve controversial issues which would not admit of brief treatment. It is proposed therefore to confine attention to the influence which school-work in some of its aspects and the teacher exert in its development. The word 'Character' is one of those words which it is so hard to define. For it is a word with many shades of meaning, and these meanings themselves have a certain vagueness owing to their complex nature. We may speak of a 'strong character' in wishing to describe a man of tenacity, of purpose and will. Another person may be said to have 'lots of character', and by this it is understood that he has a many-sided personality. Again, in another case, the salient feature of character may be its ethical aspect. This man's eccentric methods may cause him to be dubbed 'a character'; that man's colourless vapidness will lead to his being spoken of as a man of 'a certain character'. The most common character of all—it has been said—is that of having none.

From the educational point of view, these aspects of Character may be roughly described as its intellectual and moral aspects. Thus there will be a correspondence between the meanings we attach to the word 'character' and the twofold aim of education. Now it must be admitted at once that the perfection of character in the sense of the highest development of the self by the self, of the moral judgment and the moral ideal cannot be got either by the school or by the teacher's influence. But the ground-work can be prepared inasmuch as school is one of the great formative social institutions. It cannot give the highest development, for it shares in the inevitable defects of all such institutions. Severally they are imperfect and the characters which each produces are severally fragmentary. For, as MacCunn has pointed out, such institutions are not permeated by one

common ideal and the social organism lacks ethical unity. Plato and Aristotle wished to reorganise society so as to get this unity; but without such a drastic revolution, the influence of school life may do much.

A further limitation follows from the fact that there are a multitude of other influences at work—nature, the family, or friends. Voltaire and Rousseau go so far as to say that a man's character cannot be altered at all without altering his whole personality in every department of life. Most of those, however, who tend to minimise the direct and indirect influences which school and master bring to bear on character, rely on modern doctrines of Heredity. But, though the idea of heredity indicates that we cannot start at the beginning, yet it lends an added interest to educational work, inasmuch as it will be part of the teacher's duty to watch for latent tendencies, depress the bad and develop the good. It is true that the transmission of acquired characteristics is still doubtful; but if true, so far from minimising the teacher's power, it would increase it, as his influence would be transmitted. In any case, tradition, both social and individual, certainly is transmitted, and a knowledge of congenital endowment can be got from direct observation. Thus, though the idea of heredity is accepted, it does not follow that Character cannot be modified by training; and it will be convenient now to consider what development is possible directly from school-work and from the moral influence of the teacher.

As regards school-work it is evident that the character-training it affords is only one of many complex influences. Further different results will be obtained in different cases, and the value of these results will be correspondingly different. Different boys, again, are appealed to by different methods and to different degrees. The boy with a *sanguine* temperament is easily interested, but to give intensity to his interests he has to be yoked to more strenuous workers. The *melancholic* person, on the other hand, has to be appealed to through his emotions, which must be utilised for action. The *choleric* boy's pronounced proclivities furnish opportunities for education, whilst the *phlegmatic* boy is apt to be stolid and peculiarly inaccessible to educational modification. It is thus evident that the work done in school is certain to have different results in different cases.

It would, however, be unsafe to argue that school-work directly can have little value as a method of training the character. There is a value for all in mere effort. Determination is always helped by setting a boy a task to do. The idea of finishing it is presented to him: especially is this the case in connection with manual work in the early stages, where the boy can see the work growing under his hands. It will also be generally admit-

ted that school-work, by enlarging a boy's ideas, gives a clearer conception of the reality of the world, a grasp of principles, and the power of grouping together ideas—it may be in a more or less shadowy fashion—and it is this grouping together of ideas that lays the foundation of the unity of character that comes in maturer years. Finally school-work undoubtedly helps to make boys accurate. And slovenliness, either in thought or in appearance, does exert a baneful influence. Clearness of conception, on the other hand, provides excellent armour against error. It is true that the power of forming concepts and of pursuing a train of thought is a late development. But boys at school are able to advance to higher work to a degree sufficient to admit of the thought this higher work demands exerting a beneficial influence on their character. That effort of will and concentration of attention which it requires help to steady the character and regulate the impulses.

As regards the so-called moral influence of the teacher, we may ask the question,—How far ought a school to teach about virtue? We need not here attempt to solve the Greek problem as to whether virtue *can* be taught; and we may unhesitatingly state that the content of the true, the good, and the beautiful must be taught. The question of how this is to be done we do not propose to discuss here, as that would involve the whole question of Civics and Moral Education. We must be content to state our belief in the necessity of such teaching in some form or another. Further, though morality must to a certain extent be spontaneous if it is to have any value, yet just as state interference is in certain ethical questions necessary, so in a school the authorities must impose certain rules, and interfere in certain cases. Precept may be used, either unsystematized or in the form of a moral code or in questions of casuistry. In fine, direct suggestion may have great value, either within or without the walls of the school, when used with tact and discretion. But the value of such moral influence in the training of character is by its very nature limited. For some people, of meagre intelligence or limited educational opportunities, authority, especially religious authority, is almost indispensable. But no sanctional view suffices, if our aim is to turn out characters which in after-life are to attain to any sort of perfection. Without the development of the moral judgment, without a theory of the ideal psychologically determined by the inner self, moral freedom remains imperfect; for philosophy brings moral emancipation and makes service reasonable. It is obvious that this development is impossible at school, and in the case of some people this result is never attained at all. It follows thus that moral education at school is only the beginning of a process which is gradually extended in after-life. Thus direct suggestion can only supply the elements which go to make up an ethically good character.

In School life, what is called indirect suggestion would appear likely to be of more value. Here the teacher aims at influencing boys by side channels. He realises the dangers of direct moral training. He recognises that, though a straight talk may be good at times, such a talk should be rare. Indirect moral training is seen to be more healthy, ideas being thrown out by the way. If the nature of these ideas is ethical, boys must not think they are being preached at. The moral stories and types of character which are forced down boys' throats, especially in the Elementary Schools of France, tend to produce at the best priggish, at the worst indifferent, people: or else the boys will be led to think robbery and the like amusing. Curiously enough, direct moral suggestion is stronger and more efficacious in teaching a class than in teaching an individual. A crowd is more easily affected than a single person, and a direct suggestion will work on a whole where an individual would be left cold. In English schools, such ethical training is considered to be largely given by the school chapel, and it was in this way that Arnold of Rugby consolidated his influence. In either kind of suggestion sympathy is needed on the part of the teacher, and care must be taken to use it wisely. The harder the lesson the more welcome a digression becomes, and the less obtrusive does the suggestion seem. The suggestion must not be so obvious that the teacher seems to be cramming morality down his pupils' throats. Lastly the moral influence of a teacher may be indirect in another sense. His example may purify and elevate the moral judgment, and reveal the possibilities of his own moral nature to a boy, and quicken his moral spirit. But here too a qualification must be made. Example is more or less concrete; and it makes demands too, not always met, on the imagination of those to be influenced, and it presupposes in those appealed to a responsive principle of moral life.

It will have been noticed that in dealing with the influence of school-work and of the masters on the training of character, each point had to be qualified and the limitations of such influences indicated. Hence we must conclude that the influences mentioned lead up to, but do not produce, the higher stages in the development of character. They provide the necessary foundations but do not give the corner-stone. School-work lays the foundations of the intellectual aspect of character, whilst the influence of the master provides the material for its moral aspect in making boys sensitive to moral issues. Both together contribute a necessary share to the development of that character, that deliberative faculty and that enlightenment which are the essential conditions of true wisdom.

The Teaching of Literature.

THERE is no subject more difficult to teach than Literature: for it is a subject which more than any other deals with ideas, and it requires much greater skill to deal with ideas, than with facts. For this reason too it is rare to find a really good teacher of Literature. And this is true for another reason. It is essential that the teacher should be fond of both poetry and prose: he must be in sympathy with the writer, and appreciate his aims. He must delight in deep thoughts, felicitous phrases and situations of pathos and humour. He must be an enthusiast, and take pleasure in his teaching. If he teaches literature merely as part of his routine duty, his lessons will be dull and fail to achieve the aims of literature-teaching. For he has to introduce his pupils to lofty ideals and elevated thoughts, thus indirectly providing moral training: he has to show them the writer's attitude of mind, cultivate his pupils' imagination, make them read and write with understanding and in suitable words. Above all he must make his teaching pleasant so that the prospective aim of literature-teaching may be secured—the aim of inducing boys to read more in after-life.

It may be said that all this is vague and chimerical. And it is no doubt true that in the early stages an increase in vocabulary and grammatical accuracy must be secured. Vocabulary is very important and new words must be learned. Further, oral and written work must be done from the beginning. For without a command of the language obtained by these means, the value of the work done in the higher stages is seriously affected. But it is not with these points, important though they are, that we wish to deal, but rather with some general principles which have to be observed both in the selection of materials, and in regard to method.

The first point to which we would draw attention is this. In literature-teaching the principle of grading has to be carefully observed. Some authors are more difficult than others, and the works of the same author vary in difficulty. To introduce boys to works which are beyond their understanding results in giving them a distaste for what may prove one of the greatest solaces and joys of after-life. The first works selected and used must be easy. A simple narrative which goes with a good swing and contains few metaphors or abstractions of thought is the fittest material for a young boy. Hence the popularity of such a poem as Horatius. With the exception of a few epithets such as 'the brave' Horatius,—there are only nineteen epithets in all, only eight comparisons, and only two allusions. Thus, there is nothing ornamental in the poem, and it is in consequence easy. The work must increase in difficulty as

the boys advance, and poems of more difficult authors and of a more difficult character must be studied. Boys must begin to compare. For example the attitude of different poets to the Sea—Byron, Keats, Wordsworth. Poems of a more abstract nature will come next, such as 'The Burial of Sir John Moore,' and later still Shelley's 'Ode to a Skylark.'

Another point to which we wish to draw attention is the paramount importance of providing the boys with the very best literature only. If they study only the finest work, they unconsciously acquire a taste for the good and beautiful in literature, and reject the second-rate. With young boys at any rate, even the best is not always the most suitable. Apart from the question of grading, the subject-matter of some poems is not always suitable for boys. For example, it is better to avoid all poetry of an erotic character. In this connection text books often err, and include works both in poetry and prose which are not of the highest order. In several text-books in use in India work of a very inferior character is to be found. If teachers must use these books, they should confine themselves as far as possible to the better work.

This brings us to a further point. In these text books, the pieces are necessarily short. It is undoubtedly a good thing to study with care and in detail short pieces, paraphrasing them and studying their vocabulary and phraseology. But this is only a part of what should be included in literature-teaching. Long poems and books should be studied as well. They lend sustained interest to the subject which is lacking in the short piece. Much of Scott, and such poems as the 'Ancient Mariner' are read by boys with unflagging interest, and they get an insight into and fondness for poetry from reading them which no short poem, however fine, can give.

In connection with the poetry lesson, repetition is generally included. If properly managed repetition is of the greatest value, though educationalists such as Montaigne viewed it with disfavour. But it was the abuse of this lesson that they denounced—an abuse which still unfortunately exists. It is quite useless for a boy to learn anything by heart which he does not understand. The piece set for repetition to young boys should be gone over by the teacher before the boys leave the class; and he should be quite certain that each and every boy understands the meaning of the words and ideas contained in the passage. If they do understand the passage their vocabulary and ideas are enlarged and a valuable addition has been made to their mental paraphernalia. It is not necessary with older boys to go through the passage specially before hand, but in all stages the teacher must satisfy himself that the repetition lesson is being learnt intelligently. As a mere exercise of the memory it is of little value. As a method of training the memory,

its effect is small. The player who learns many parts doubtless has his faculty for learning and remembering Shakespeare and cognate subjects improved, but not for alien subjects. Memory depends on congenital endowment and interest, and the repetition lesson will only help the memory if an intelligent interest is taken in what is learnt. One more small point in regard to the repetition lesson may be noted. The turns of speech and the phrases and lines which remain in the memory will recur in after-life and give pleasure and enjoyment even in the most prosaic and dull surroundings.

A word may now be said in regard to the teaching of plays. Dramatic poetry should not be studied with young boys, inasmuch as they are unable to appreciate the inter-relations of the various characters. And most of the value of reading a play consists in studying the various characters. With older boys, attempts must be made to form estimates of characters. For example, Shakespeare's conception of Caesar may be estimated by what Caesar says, by what he does, and by what others say of him. It is obvious that to attempt this with younger boys is simply to waste time. They are better employed in reading such books as Lamb's *Tales from Shakespeare*. A further point in regard to the reading of plays is this. The boys should be made to take parts. Where a single boy reads, an excellent opportunity is lost of making the reading interesting and more real. A greater number of those in the form are occupied and the reading steadily improves, and with it the appreciation of the play. For boys, being born with what is called the dramatic instinct, enter into the spirit of their parts, read well, and understand what they read. This appreciation and understanding of plays is increased, if it is found possible for the boys both to see and to act plays. In this country it is difficult, if not impossible, to see a play at all. And in any case it costs money. It is still more expensive for boys to act themselves, however simple the costumes and stage decorations may be. Moreover, such acting entails a great deal of rehearsal beforehand and is a severe and perhaps unjustifiable tax on the time not only of the boys themselves but also of those who give their services as 'coaches'. A further difficulty in this country lies in the fact that such plays are not in the vernacular; and in consequence it is less easy to secure a good performance. A bad performance is worse than none.

In conclusion, a brief mention may be made of the books to be selected. In the earlier stages, for long pieces of poetry.—The *Ancient Mariner*, Scott, Macaulay, and then Tennyson are in our opinion the best. For short pieces we think the "Lyra Heroica" contains the best selections. In the later stages, any first-rate poem may be selected, whilst for short pieces

the teacher will find 'The Golden Treasury' invaluable. It is difficult to offer advice in regard to prose, as the field is so enormous. There are, however, some good school editions of the Waverley Novels and of Stevenson. Finally, it is wise, where possible, to correlate the Literature teaching with History. One example may be given to illustrate this. Suppose the Tudor period is being studied in English History, Tennyson's "Revenge", and Macaulay's "Armada" may be studied for poetry, or with older boys Shakespeare's Henry VIII; while for prose such books as Kenilworth or stories dealing with the travels of the geographical discoverers may be read.

It has been impossible to deal at any length with the Teaching of Literature. It is hoped, however, that the remarks we have made may be of some value; or at least induce readers to offer suggestions themselves.

Occasional Reports.

OCCASIONAL Reports Nos. 2 and 3 have just come into our hands. Number 3 deals with the Educational system of Japan. It is too large a work for us to notice here. It has been selected as the special subject for the L. T. Degree Examination next year, and many will doubtless read the book, which is exceedingly interesting and instructive. Number 2 is a shorter volume, and is a report of the Committee recently appointed under the Presidency of Mr. Covernton on the Vernacular Reading Books in the Bombay Presidency. Some of the matter contained therein refers only directly to Bombay; yet there is much that is of interest for all engaged in educational matters in all parts of India. We propose therefore to notice some elements which are of general interest. An exhaustive study of the subject is not attempted; but rather a brief mention of such points as suggested themselves in reading the report.

* * *

* * *

* * *

In support of a thorough and extensive vernacular course, the following quotation is of interest.

"Nor is it just to deride or condemn offhand the advanced pretensions of such a 'primary' education. In the first place there are hundreds to whom a smattering of English can be but a dubious benefit, if not distinctly harmful. Thousands more lead lives in which English can play no part at all. Yet the country itself may justly claim for such classes something more than the minimum of "the three R's." Indeed if the industrial millennium of which some dream for India is ever to come to pass, its advent must be prepared by a quickening and extension of that which alone can serve as a permanent basis of it, the vernacular education of the common people. The existence

too of the Public Service Test, and the fact that the scholars in our Primary Training Colleges are recruited from men who have attended no other institution than the vernacular school are additional practical reasons for the maintenance and extension of advanced vernacular standards.

"The next point to which we would allude is the principles on which the subject-matter for the new readers brought out by the Committee was selected. This was a matter of great difficulty. The differences in caste, race and language in the Bombay Presidency are so great that the problem of selection became extremely complicated. Add to this a chaotic orthography, and the difficulties under which the Committee worked can be appreciated. In this Presidency the problem is not quite so complex. Nevertheless the solutions attempted are instructive, and it will not be out of place to quote at some length the fundamental facts which the Committee took into consideration in making their selection.

"That discretion, however, had to be exercised in regard to the subject matter of such selections is, to all at least who are acquainted with the frank exuberances of Oriental verse, equally obvious. This, however, is a point connected with the larger problem of the selection of matter. In discussing the latter question two or three fundamental facts may well be borne in mind. From these spring the general principles which governed the Bombay Committee's action. Firstly, the matter was required for vernacular speaking Orientals, the vast majority of whom would never speak English, and whose teachers also (so far as the primary schools were concerned) would be equally ignorant of that language. Secondly, these Orientals, except on the servile and nomadic fringes, were members of an ancient civilisation. Not only were their lives ordered for the most part peaceably and decently in accord with immemorial precedent and tradition and the sanctions of great religions, but they too like ourselves were heirs of the wisdom of the ages. On the other hand, the wisdom of the West was a fast opening book, some of the pages of which were fraught with lessons fruitful alike for Eastern and Occidental, while others bore maxims to be digested and applied only in the colder regions and by the more critical peoples of temperate zones. Lastly, here in Bombay was no educational 'tabula rasa.' The methods and matter of the older books had created a vogue, which, however necessary to extend or correct, it was neither politic nor feasible to destroy. Hence five obligations rested on the Committee. First, to select passages which sprang from and adequately represented the vernaculars of the people. Secondly, to supply matter that was of a piece with the web of which their daily lives and general experience were woven. Thirdly, not to ignore completely the great achievements and

accumulated wisdom of their historic past. Fourthly, to open, in so far as the revelation might prove profitable, the doors of the treasure house of western civilization. And lastly, to develop, if possible, the lines on which the previous series had won their most notable successes and also to supplement their most obvious deficiencies."

There is much in this that is of interest to us in this Presidency and it is equally interesting to see how these principles were applied when we read that 'the Committee has considered that some lighter pieces may legitimately have a place in the text books. A monotonous insistence upon the moral aspect of all the subjects treated in a school text-book tends to defeat its own object.' This remark is most true. There is nothing which the average boy revolts from more than the having morality thrust down his throat. It does indeed defeat its object. Again, reading lessons in Indian history have been introduced, the aim of which has been wisely stated to be ethical, not political.

"Peradventure vernacular writers, as they begin to grasp the drift of the Committee's intent, and to disabuse themselves of the idea that history is a meaningless jumble of tiresome dates and dreary details, may be able hereafter to improve upon the specimens procured by the Committee. One caution alone remains to be added. The aims of lessons of this kind, apart from their general objects of interest and instruction, should be not political, but ethical. In them it is the duty of the educationalist impartially to hold up ensamples of conduct for guidance and warning, not to disseminate a partisan propaganda. Detailed points of current politics and the exercise of what may be termed political logic, should be left unessayed. On the other hand, easy lessons on 'citizenship,' the right of the state and the individual, etc., should be provided in the highest books, and a steadfast spirit of simple loyalty should be implicitly cultivated."

*
* *

*
* *

*
* *

The sixth chapter of the report has some interesting remarks on how to teach the alphabet. The general objections to the "Look and Say" method are put as follows—

"It expects too much of both the average pupil and the average teacher, and stimulates them to drain in a few big gulps what at first can only be drunk with advantage in sips, a practice which culminates in mental dyspepsia and an inability to assimilate the harder pabulum which future years will present. Under it writing must necessarily take a very secondary place, and a child thereby is to a certain extent deprived of one of the best means for studying and recognising in detail the form of the symbols placed

before him. A further result is that there is less opportunity of correlating his reading and writing with other manual and visual exercises or games. Moreover, with any but very attentive children or those whose powers of observation are highly trained, the method is liable to lead to inaccuracy in spelling and to badly formed letters in writing. Lastly, the change is too great and too sudden for men brought up in the old alphabetic system, and, unless teachers are thoroughly drilled in the method and understood its limitations, they are only too likely to apply it superficially and mechanically. The last state of the learner is parlous indeed."

The method therefore advocated by the Committee is set forth as follows.

"It adhered at the beginning to the old analytic-synthetic method, since it presented individual letters for study, but these letters were presented in small groups according to similarity of configuration, the easier being given first.....But the letters were not presented alone. By the side of each was placed what is called "a sectional letter," that is, one in which the distinct component parts are separately represented yet in such a way as to enable the eye to grasp the fact that the distinct sections do make up the complete letter. It was also found that these elements could all be reduced to a few simple common forms, consisting of circles, semi-circles, arcs, horizontal and vertical lines etc. These abstract elemental forms were given together in a diagrammatic figure for the teacher's benefit on the first page and he was advised to procure pieces of wire, sticks etc, of corresponding shapes and with them to practise his class in imitating the forms of the letters, adopting both analytic and synthetic methods in each case. On the side opposite to the 'sectional' form each letter was to be accompanied by a picture and by the name of a familiar object which began with the particular letter.....At the foot of each group were given in combination, so as to form words and sentences, the letters composing the group or occurring in previous groups. It was also impressed on the teacher that the symbols were to be reproduced in drawing or writing as well as recognised visually. Their distribution in groups according to similarity of form would facilitate both recognition and reproduction. The groups were not to be learnt off by rote, and the teacher was not to limit himself to the words printed below them but could suggest others and practise the class in the simplest exercises of word and sentence building with the data provided and such other suitable material as he might be able to invent. The words and sentences were carefully graduated in length and difficulty and were made to lead up to short stories."

The tenth Chapter of the report deals with vernacular languages and

their capacity as media of expression, and some interesting sections are devoted to the conditions of their development, which deserve careful study and are well worth quoting in full.

"It has been said above that the difference between the dialect of our books and that of the common people is largely one of quantity. This is true, but such a quantitative distinction *ipso facto* entails also differences of kind. If it is to develop, the written nucleus of a language must attract to itself suitable words and synonyms from the shifting nebulae of speech which surround it, and from the other more or less developed languages, which pass within its orbit. Hence, from mere words alone, exclusive of grammatical inflexion and syntax, arise qualitative modifications. To condemn a writer, however, to restrict himself to the mere vernacular would entail results as absurd as if an Englishman were to confine himself to words of purely Anglo-Saxon origin. Obviously the invention or manipulation of terms necessitated by things or ideas of specially Western character is one that calls for exceptional care and judgment. Where the datum for which a word has to be found represents an abstraction or generalisation of facts of which even the vernacular man is cognisant, although he lacks a general name for them, there is comparatively little difficulty. The vernacular can usually supply words for the particulars and from them by the help of abstract or generalizing suffixes a suitable word can be embodied. Or an appropriate word can be borrowed wholesale from the kindred classical language. Often too the latter will have to be drawn upon for philosophic or scientific terms to which there is nothing to correspond directly in the vernacular, and for which vernacular periphrasis or paraphrase can produce but cumbersome equivalents. Not that these courses are to be despised or rejected: they are often preferable but they have their own dangers, viz., the perils of the personal equation, the cant of commonplace, vulgar or alien association, deficiency in accuracy, besides prolixity and clumsiness. It is here in particular that discretion is desirable and too often wanting. The educated native in many cases is very ignorant of the capacities of his own vernacular. From the heights of Sanskrit, English, or Persian he surveys the people's speech with a supercilious disregard that brings its own punishment. His lofty vision passes over humbler possibilities to the seductive attractions of the more literary languages with the result that his outpourings become a jargon which to 'the man in the street' is quite unknown. He thus curtails his own influence, while learning once more finds itself a cult for the esoteric few, and these regard it rather as the phylactery of a caste than as the 'organon' of a new birth of time. The middle course seems best. The classics should only be invoked where the vernaculars indisputably fail. And English only where modern or Western

technicalities (*e. g.*, in science, politics, arts and industries etc.) can find equivalents in neither classics nor vernacular, and where it is more convenient and more in accord with the solidarity of learning that synonyms should not be coined out of the obscure languages in India. Where too an English word has already secured a footing in the vernacular, even though it displaces a native one, it is better to avail oneself of it, provided of course that it meets a want in the way that no native word exactly does. It should be allowed, however, to assume the form which is consonant with native methods of pronunciation. Two practical cautions may be noted in conclusion. First, where an established educational usage working through the media of schools, training colleges, and text-books has sanctioned and more or less popularized any terms, provided that these are not inherently bad, it would be an act of unnecessary folly to effect an arbitrary change, however "scientific" or "rational" the substitute proposed Secondly 'quot homines, tot linguae.' No educational series could be written to meet all dialectical conditions. Selection and a literary standard are essential and people must be educated up to the latter."

There is one other subject in regard to which the remarks of the Committee are of interest. In Chapter XII the general uses of pictures in school books, certain difficulties as regards native teachers and pupils, the question of native or European pictures—all these points are discussed in an admirable manner.

"To a child good pictures are as the eyes of a book. From them he will often receive truer impressions of its subject than he can gather from the mere words. Pictures, too, of themselves afford a training. They stimulate and guide the observation, since in order to be appreciated they must be understood, and understanding cometh not without a double insight, objective and subjective. The child must look clean-sightedly out into the world around him, and noting what he sees there, must compare it with the pictured scenes before him and the manner of their representation. Such differences as he may perceive will be good for thought and for questions to be addressed to and (it is to be hoped) answered by an intelligent teacher. But he will also look into his own mind and discover what pictures he had formed therein, consciously or unconsciously, of the persons described or the things narrated, with which he will contrast the book picture and satisfy himself how far it fulfils or falls short of his own ideal. Here, too, the discreet teacher will find ample scope for skill and judgment in eliciting from the pupil what his conception of the subject is and how he would treat it fictitiously, together with comments upon the degree of success attained in the illustration before him."

"Nor is this by any means as simple as it may seem. Sometimes the native child has eyes and sees not; more often sees but with a vision different from that of European eyes. So too the native adult: except he be bred or educated to European standards and points of view, and from long association have come to accept them at their own valuation, he will always tend to interpret Nature as he thinks he sees it, and to give to scenes of the imagination such expression graphically as the traditions and hereditary conventions of his own art determine. For these are not, as Europeans are too prone to assume, the outcome of a bizarre and childish fancy working itself out into equally grotesque results under the tyranny of a stilted and archaistic method" but rather the genuine expression, as true as the native artist can render it, of the way in which the native mind envisions, the native eye perceives and the native hand can execute the given subject. It is only of late years that we Occidentals have gained any true understanding and appreciation of Japanese art, where too the standards and standpoints were different from our own. But of the just criteria whereby to appraise a native Indian painting the West is still either ignorant or careless."

"Does it then follow that the pictures in a vernacular school series should be the work of native artists, designed and executed in accordance with the traditions and conventions of the best native schools? Or, to put the problem in another light, if the native teacher and pupil are presented with good illustrations purely European in fashion and technique, will they not fail not merely to appreciate their value but even to grasp their essential meaning? The answer to the second query is "very possibly." But it does not follow from this that we are thereby doomed to the other alternative. Excellent as native art was in certain kinds, its sphere was limited and the development and the excellence attained has been arrested. At its best its methods are of limited application and its conventions suitable only for exclusively indigenous subjects. Though these may satisfy the visual sense and æsthetic tastes of the ordinary native, it cannot be pretended that they are adapted for general use, still less for the requirements of things or scenes peculiarly Western. Moreover, the lack of perspective and proportion, the remoteness, in some cases, from external nature, the two faults perhaps most obvious in native drawing or painting, though they may be excusable as the outcome of the native standpoint, are precisely matters in respect of which it is most feasible to educate the young into correctness and most desirable on artistic and ethical grounds so to do. Hence while not excluding the most suitable products of good native artists (*e. g.*, portraits of native rulers or men of note or quasi-historical pictures of Indian scenes or incidents) the better course seemed to the Committee to require

adherence as a rule to pictures of European style and reliance upon time and natural intelligence (as well as upon careful departmental supervision and instruction) for the necessary education of both pupils and teachers up to this standard."

Finally we may quote this. "How much in customs, dress and manners the four chief Bombay provinces differ among themselves as well as from other parts of India is a matter which few Europeans outside the Presidency realise, but which appeals very keenly to the natives of all classes. Besides this, distinctions of caste and religion and their effects have to be carefully taken into account and with them differences in scenery and in fauna and flora. It is by scrupulous attention to accuracy in all such local minutiae rather than by merely 'artistic' composition and technique that native approbation for European work is ordinarily to be secured."

With this quotation we bring to a close our remarks on the report. The whole report will repay study, and is one which all teachers would do well to read. Nor is it expensive, as it may be obtained for ten annas.

The Madras Educational Exhibition 1907.

Mr. M. Subrahmanyam B. A., L. T., Hony. Secretary of the Madras Educational Exhibition Committee writes to us:—We have very great pleasure in announcing to the Educational public that the loan exhibits we are securing to obtain from England will be of an immense educative value to the managers and teachers of schools and we hope that every institution in the Presidency would take early steps to arrange to send to Madras during the exhibition period at least one representative teacher who will take notes and enlighten his colleagues. The collection, we have no doubt, will be a splendid one and we cannot feel sufficiently thankful to the Board of Education in England for their extremely generous offer through Mr. Mayhew our President. At the request of the Japanese Government, British exhibits are being collected for some time past and these will be displayed at Madras while *en route* for Tokio. It is not possible for any to get a fuller and more representative collection of British exhibits as the material now being collected for Japan is intended to mark the Board of Education's appreciation of a very valuable collection of drawings, school exercises etc., which after illustrating Baron Kikuchi's courses of lectures on Japanese Education, has been given to the Board as a permanent addition to their collections at South Kensington. The Madras Exhibition will be opened on the 24th August 07 and the Committee has arranged to

keep the exhibits on view in the senate house for a week. During the exhibition period papers on educational subjects will be read by experienced educationists. Rules for the guidance of the exhibitors have been printed and can be freely had of the secretaries. Medals and prizes will be given to the best exhibits sent for competition. As the competition is also open to Hyderabad, Mysore, Travancore and Cochin, it is hoped that the institutions in these native states would also send us their best work. It is requested that the educational publishers will send us their educational apparatus, appliances etc., for the benefit of those attending the exhibition. No fee will be charged for admission to the exhibition and all interested in education will be welcome.

Pachaiyappa's High School, Conjeevaram.

PRIZE DISTRIBUTION.

The sixty-first anniversary and prize distribution of this High School took place in the Conjeevaram High School, where were assembled the leading residents of the town. Mr. P. Kershasp, B. A., I. C. S., Sub-Collector, Chinglepet, presided and gave away the prizes. The following is an extract from his speech.

"It is rightly remarked in the Report that the formation of character is the principal function of a teacher. Some authorities have explained that in the first seven years of a man's life the germ of character is laid, in the next seven years character is formed, and in the succeeding period of seven years, character is consolidated and fixed. Thus teachers in their schools have charge of pupils at a most impressionable age. I hope that the several changes in the staff and increased expenditure on the school will contribute to greater efficiency. This school is a purely Swadeshi concern and Swadeshi in its most laudable aspects. The founder was a pious Indian; the management is Indian, and the staff is Indian. It teaches a valuable lesson in self-help, a rare quality in India. The nearest parallels in other parts of India are schools established by Sir Jamsetjee Jeejeebhoy and the Ferguson College. The latter College is manned by Mahratta teachers who give their abilities and energies to the work and are content with a scanty remuneration. In America the endowments of Universities and schools amount to millions of dollars; in India education is still confined to an infinitesimal part of the population, yet here it is all important. This country is lagging behind in competition with other nations of the world, and she will be out-distanced still more unless India keeps abreast of modern invention and science. Her mineral resources await development

for which highly skilled artisans are required. India produces abundant raw material which is exported and returns in the shape of manufactured articles. All the profits of manufacture then go into the pockets of foreigners. The Swadeshi movement should aim at economic independence and at securing the best terms in the interchange of commodities. One condition is that wealthy classes in this District should come forward with donations for educational purposes. If the Government undertake such enterprises, the taxation will have to be increased. Not staying in the region of generalities, I throw out some practical hints. The Landholders' Association was formed in Madras some years ago; there Zemindaries and estates cover a large area. Landholders should pledge themselves to support schools, each a fixed number or so many in numerical proportion to population. If they labour in the cause of education the problems of education will be solved. No practical scheme has yet been evolved by the Association for the improvement of the agriculture or amelioration of the lot of the peasantry. Let landed proprietors and tenants co-operate, avoid senseless litigation and expense and the country will advance as a whole. We have not to go far for an illustration of misdirected Swadeshi efforts. Chetties in this town are pulling down the temple buildings and raising new edifices. Over Rs. 8 or 10 lakhs have been already sunk. The number of temples is already excessive and even existing ones are not repaired. The Hindu religion does not prescribe such ruinous extravagance. If the Rs. 10 lakhs had been devoted to Education and Technical Instruction they would have fructified ten-fold into new industries and activities which would have promoted the happiness of thousands of people. The District Associations meet each year and pass formal Resolutions and hold academic discussions but no practical results are achieved. Why should they not take in hand the education of Chetties and others who have money to throw away in their duties to country and their notions of charity? Also landed proprietors may be roused to the perils of their situation. Coolies are emigrating in large numbers to other countries attracted by higher wages. Here wages are at starvation point, and it is impossible that such a state of things can indefinitely continue. Unless prompt measures are taken even in their selfish interests, the landholders will have to beg their bread in the streets. Labour being depleted their lands will be uncultivated."

The Study of Sanskrit.

BY

PRABHU DATTA SHASTRI, M. A., B. T.,
Senior English Professor, Lahore Training College.

In our perusal of the leading educational journals of to-day it is very seldom that we read some hints or suggestions on the study or the teaching of the Indian classics. Still rarer is it to come across an article discussing the method of procedure to be adopted in the teaching of Sanskrit or the ways and means to be followed in order to make its study more rational and more intelligible. With this aim in view we propose to make a few remarks in the following few pages. We shall, to begin with, point out the importance of the study of Sanskrit, and then shall briefly dwell upon the lack of interest exhibited in it, the reasons for the same, defects of the present-day teaching, suggestions as to their removal, revival of its study and the manifold advantages accruing thereupon. This, in brief, is the plan of our remarks, and we shall deal with these points in a logical order.

First, then, we have to consider the importance of the study of Sanskrit. It is in the first place due to many qualities inherent in the very structure of the language. Examine for instance the very name of the language—*Sanskrit*—which means 'well refined', 'well polished'. It is thus the purest and the most refined language. In it there is no process of 'borrowing' from other tongues in order to make itself complete (as it is in the case of English), but it is complete from its very nature and can express even the most refined shade of thought without borrowing any word or syllable from other languages. It is an unmixed and unalloyed language. It is at the same time the most ancient language known to exist. Europeans are, however, of opinion that the 'mother-language' is unknown and that Sanskrit and Greek are surely among her first offsprings. Its preservation of some of the oldest forms of words which are, more or less, akin to those exhibited in the sacred dialect of the Iranians, *viz.*, Zend Avesta, makes it the most attractive study for a student of Comparative Philology.

Apart from its purity, it has a great richness of vocabulary, which is unequalled by any other language existing. It is a highly inflexional language, based on an inexhaustible store of roots. Only the slightest inflexion makes a considerable change in meaning—thus the verbal base '*gachta*' means 'to go'; '*gachuati*', 'he goes', '*gachhath*' 'he may go': '*gachhet*', 'if he goes', &c., &c.

Again, it possesses the most perfect system of grammar, which has not been surpassed, nay even equalled, by any other language. The grammarian Panini has worked wonders by establishing the most finished and the most comprehensive system which goes after his name. Prof. MaxMuller rightly remarks: "The grammatical system elaborated by native grammarians is in itself most perfect; and those who have tested Pānini's work will readily admit that there is no grammar in any language that could vie with the wonderful mechanism of his eight books of grammatical rules".

Sanskrit may well boast of its extensive and vastly ramified literature. Though the production of original Sanskrit works is practically at a standstill at present, yet it has such an immense and huge literature in store as can stand in extent even those in the most popular languages of to-day. Innumerable works exist in every branch of knowledge, though unfortunately many manuscripts are not accessible. The greatest advance, however, has been made in the domain of philosophy, the development of which in the Vedāntasūtras of Vyāsa touches the loftiest pinnacle of thought.

These facts are an ample proof convincing one of the real importance and usefulness of the study of Sanskrit. But here we cannot but mention the sad fact that in spite of all this there is now a great lack of interest in—rather an aversion to—its study in this land. India (the very name is of Sanskrit origin) where once the sweet Sanskrit was a common vernacular spoken by all is now being totally transformed into a country of the '*Mlechhas*,' which discards the study of such languages as Sanskrit. In its jungles and shady groves of trees, by the rivulets and green pastures sweet Sanskrit songs were chanted of yore and even the illiterate could enjoy them, but to-day even the commonplace truths and maxims in that language are the greatest puzzles to people professing to be erudite scholars of the language. People in general do not care to be conversant with it, their only aim in receiving education being *utility*. "Will the knowledge of a particular language, science, or art be more paying to me?" This is the only consideration or standard which guides them in their choice of study.

But what is all this aversion to its study due to? Various reasons can be adduced to account for this lack of interest. First, people cherish some wrong notions respecting it, *e. g.*, some assert that it is a mere waste of time to study a 'dead language'. They regard Sanskrit as a 'dead language'.

They regard Sanskrit as a 'dead language? It is the people of such a type that contribute to the 'decay' of a living language. On the other hand these people perhaps do not know that a language cannot be called 'dead' so long as there exists even a single individual

who speaks it. Whitney also remarks that a certain Welsh dialect could not be pronounced as 'dead' so long as it was spoken by the only one last remaining Cornish woman. Here, at least, we have some consolation to see even to-day some Pandits of Benares and the Hindu gentry of the Deccan speak Sanskrit in their every day conversation.

In this respect India has much to learn from some of the modern European nations, which are gradually furthering the study of a tongue, foreign to them, viz. Sanskrit. Germany is to be ranked as the foremost among them, and she exhibits an exceptionally great activity in the study of this language on a rational basis. The Germans have produced some of the best translations of the Vedas and other Sanskrit works in their own language, and contemplate transforming the 'pith' of the whole of Indian literature in German. The truths underlying the Vedanta Philosophy are beginning to appeal to the acute reason of the Americans as well, who are applauding the 'oriental lore' in the highest terms. Other nations are appreciating the value of Sanskrit but India is turning her face away from it.

The second reason to account for this lack of interest is that people regard its study as the most tedious task; hence, they do not take to it. There has been a similar tendency of late in the universities of Oxford and Cambridge to cut off the study of the classics, Latin, Greek, etc., from the curriculum (of compulsory or fixed subjects), because of the difficulty of acquiring their knowledge and of its want of practical usefulness. But the so-called tediousness of Sanskrit is not felt by a thorough teaching on modern lines, which we shall speak of presently.

We have set forth above a few reasons for the lack of interest in the study. Now let us think for a moment of the means to be adopted and the practical steps to be taken for the revival of its study. The first desideratum is the efficient and sound teaching of Sanskrit from the very beginning. In most of the schools of the Punjab, the teaching of Sanskrit is dull or monotonous, tedious and unmethodical, unintelligible and incoherent. There is no educative value in such teaching and it is sure to produce in the student an utter ineptitude, listlessness and disgust for its study. Just note the method of procedure for a moment. First, the teacher reads a clause or a sentence, requires the students to follow him, states the meaning of the whole himself and then requires the pupils to repeat it just like a parrot, without exercising their intelligence by calling attention to the arrangement of words, their grammatical structure and mutual relation, the association of their sounds and meanings, with other words &c. This kind of teaching is really absurd and utterly useless, and it is high time

to contemplate proper measures for the removal of this fundamental defect.

But how can it be best done? This, naturally leads us to the second means of the revival of this study—the training of teachers. Our aim can be best achieved if we train men for the teaching of Sanskrit too. Why should not these people after passing their 'oriental Titles' examinations be required to undergo a year's training? By so doing they can be made conversant with the best methods of teaching the Indian classics, and can acquire a good deal of information about 'method' in general. We have actually heard some of these people expressing a desire to undergo a course of training, but unfortunately they cannot do so at present. It cannot be denied that a year's training will greatly alter their spirit and method of teaching. There will thus be intelligent teaching, which will indeed reawaken a fresh interest in its study and will leave no room for the frequent complaints of candidates as to their inability to acquire a high standard at a certain examination of the University.

Another impetus to the study of Sanskrit can be given by the University or the Government by undertaking to publish some of the best books existing in Sanskrit literature. This is already being done in the Bombay Presidency. There are works in Sanskrit literature, *e. g.* *Hitopadesha*, *the Mrichhakatika*, *Sakuntala* &c., which have been, or are being, translated into all the languages of modern Europe. Why should we not make a wider spread here of such healthy literature?

Lastly, more scholarships, and prizes may be awarded to the deserving and the poor, and thus much can be done to revive the interest in the study of Sanskrit.

The best advantages to be derived from its study, if based on a rational plan, are the infusion of true moral principles—*e. g.* truthfulness, duty, loyalty—into the hearts of the people, the preservation from 'decay' of the oldest and the most valuable language together with its literature, and a real discipline and culture of the mind. It behoves every lover of India, therefore, who studies this question seriously, to bring all his influence to bear upon the furtherance of a rational study of 'the purest and the sweetest language'—Sanskrit.

The third and last reason for the same is the want of sufficient encouragement for its study, especially in the Punjab, by the University. Nominally there is the Oriental College under its control, said to be established with a view to impart a sound education in Oriental languages on a modern systematic basis. This should have been the model institution for the study of Sanskrit in the Province. The Principal is doubtless a man

of high literary attainments and a very able Sanskrit scholar. But owing, perhaps, to the lack of really efficient 'Pandits' as his subordinate teachers, the study of the Nyaya, the Sankhya and the Vedanta systems of philosophy—the kernel of the Hindu Shastra—is not provided for at all. Moreover, the teaching in the purely Oriental sides proceeds on the same old indigenous lines, without any method or principle to guide it. Apart from the Oriental College, the Punjab University in itself is practically doing nothing for the encouragement of Sanskrit study. On the other hand, we can safely assert that it is indirectly 'discouraging' it. For instance, no purse, prize or medal is awarded to one who stands first in Sanskrit in the M. A. Examination. Sometime back there used to be one 'Harbans Aitchison Gold Medal' exclusively for this purpose, but since the year 1905 it has been 'exhausted'—so says the University. There used to be a scholarship of Rs. 30 or so per mensem for one standing first in the *Shastri* (Honours in Sanskrit) Examination to continue a further study, but now there is nothing of the sort, not even a prize. For many years together the same selections from all the ten books of the Rigveda have been a text-book for the M. A. and students have had a very great difficulty in procuring the whole of the Rigveda or have to spend a heavy sum in buying it. But the University has not taken the trouble to edit those selections as a separate book. These are only a few of the many instances that go to strengthen our assertion.

The D. A. V. College is the only institution in the Punjab that is under all these circumstances fighting bravely to keep up, improve, and encourage, the study of Sanskrit. It is rather enforcing the study of classical Sanskrit and of the Vedas. The D. A. V. School also, which is attached to this institution is doing much in the same direction. Every student is compelled to take up Sanskrit and Hindi either as compulsory or optional subjects. We learn that the college provides the study in all branches—there are separate Pandits for teaching classical Sanskrit, Philosophy, Theology, &c. Moreover the foundation of a few scholarships exclusively for Sanskrit is a great attraction for students. This institution therefore deserves every praise in this respect.

The Rajahmundry College.

The following is the portion of the Government Order, dated 18th June, 1907, giving the facts of the case in connection with the recent misconduct of the students in the Rajahmundry College:—

The Governor in Council has received from the Director of Public Instruction reports on the subject of the recent misconduct of the students in the Government College at Rajahmundry culminating in their open defiance of constituted authority and secession from the College on

Wednesday, 24th April, 1907. The facts of the case as ascertained by the Government after careful enquiry are set out below. A memorial submitted by the students, dated 29th April, 1907, has also been considered by the Government.

It appears that more than one month previous to the date of the revolt on the 24th April, Mr. Hunter, Principal of the College, had received complaints from authoritative sources that the conduct of the students in the public streets had been such as to reflect discredit both upon the students themselves and upon those responsible for the discipline and welfare of the College. Mr. Hunter accordingly, after consultation with the College Council, decided to address the students in the presence of the staff and to warn them of the serious consequences to themselves likely to result from a continuance of the practices referred to. Mr. Hunter accordingly addressed the students on the 19th March explaining to them that, while they were at full liberty to discuss public questions—social, political or religious—among themselves, and to attend public meetings at which lectures on such matters were delivered, it was not proper for under-graduates to take a prominent share in public movements and that public demonstrations on their part would not be permitted. As for rowdy behaviour in the streets, he warned them that any student found guilty of such practices would be liable to instant expulsion. He endeavoured to make it clear that what he said had no reference to any particular cause or party, and that the prohibition extended just as much to demonstrations in favour of movements with which, as an individual, he might be expected to sympathise, as to movements towards which, as official or individual, he might be supposed to be antagonistic. Mr. Hunter further pointed out that the College authorities, in forbidding students actively to engage in agitation, had no thought of expressing approval or disapproval of any cause or party *per se* except so far as demonstrations plainly directed against Government were obviously intolerable in students of a College maintained or supported by Government. The main ground of the prohibition was the belief that agitation was improper in undergraduate students, and that the excitement involved in such agitation was detrimental to studies and discipline. Accordingly he forbade students to continue or become members of the Association styled *Bala Bharat Samiti*, to march in procession or shout *Vande Mataram* in the streets, and to wear *Vande Mataram* Medals in the College.

These remarks of Mr. Hunter were received with some applause, and, at any rate, without any sound or sign of dissent.

On the following day, the 20th March, 1907, it was brought to the Principal's notice that a student J. Ramachandra Row, belonging to the Senior B. A. class of the Arts College, and not a member of the hostel attached to the College, had visited the hostel in company with a leading member of the Samiti referred to, and had incited students to defy the orders which had been issued. On being summoned before the Principal and College Council, he appeared wearing the prohibited medal and behaved in an insolent and insubordinate manner, an attitude which he maintained when called before the College Council in the evening. As he declined to submit to authority, he was suspended, but was eventually, on the 26th March, readmitted, after expressing his regret for what had occurred and on giving assurance of his future good behaviour.

During Ramachandra Rao's suspension Mr. Hunter had, however, on certain representations made to him, consented to allow students to join the Samiti, provided that it was made clear that the declared object of the Samiti was not inconsistent with loyalty and due submission to authority; that public demonstrations, on the part of students, should be discouraged; and that two members of the College staff should be included among the patrons. This arrangement was, however, never carried out. Shortly afterwards a number of students presented to the Principal a petition couched in respectful terms asking permission to continue to be members of the Samiti, to be allowed on festivals to march in procession demonstrating the virtues of "*economic Swadeshi*," and to wear medals in the College. Mr. Hunter answered the deputation at once, expressing his inability for the present to comply with their requests, except so far as the membership of the Samiti was concerned, but he afterwards sent for a senior student, whose name

appeared first in the list of signatories, and authorised him to inform his friends that, if things quieted down before the end of the hot weather vacation, and if on enquiry it was found that the medal betokened nothing beyond legitimate patriotism, and that the "economic *Swadeshi*" processions were similarly harmless, he would be prepared to reconsider his decision so far as these symbols and ceremonies were concerned.

After the readmission of the suspended student, J. Ramachandra Rao, on the 26th March, the incident seemed to be closed. The Principal had no reason to anticipate further troubles and much ground for hoping that next term the whole matter would be as good as forgotten and normal conditions completely restored. The students of the Arts College had obeyed orders for nearly a month, their conduct, outside the College, had, so far as the Principal was aware, been satisfactory and three more days' good conduct would have brought them to the end of the term.

At the Training College there had been some slight trouble, and the Principal had felt it incumbent upon himself to explain to normal students on the higher grades the gross impropriety of Government stipendiaries taking part in questionable agitation or demonstration and here also the students finally submitted and in this quarter also normal conditions appeared to be restored.

Matters remained thus until the 19th April, the date on which Babu Bipin Chandra Pal arrived at Rajahmundry, on which occasion he received a public address read by Hari Sarvotthama Rao M.A., a student under training in the Government Training College. A second address was read by the same student on the morning of the 24th April the date on which Babu Bipin Chandra Pal left Rajahmundry. These acts were in violation of the conditions under which Hari Sarvotthama Rao was stipendiary, receiving training in the College, and was in open contravention of the disciplinary orders of the Principal in regard to the part to be taken by students in political demonstrations.

At the time of Babu Bipin Chandra Pal's arrival at Rajahmundry, the Principal and the chief lecturers of the College were attending a conference of Professors in Madras, but on receiving a report from the Vice-Principal of the Training College to the effect that the students were idolising Babu Bipin Chandra Pal, to whose evening lectures they thronged, that they had conducted him through the streets in noisy procession and that a large number of the pupils of the practising school had absented themselves from work without leave, Mr. Hunter returned to Rajahmundry where he arrived on the 22nd April.

On the following day Mr. Hunter attended College as usual. As it was the day preceding the half-yearly examination, no regular classes were conducted, but some of the students were at work in the College library none of them wearing the medal. That evening Babu Bipin Chandra Pal delivered a lecture on "National Education" which was largely attended by the students of the College. In the forenoon of the following day (24th April) the Principal, on attending College and on entering his lecture room, found a large number of the students belonging to the Senior and Junior B. A. classes, including the student J. Ramachandra Rao, wearing not only the medals, the use of which had, for the time being, been expressly prohibited by him which prohibition was still in force, but also large paper tickets bearing the words *Vande Mataram* both in English and Telugu characters. The tickets had, as Mr. Hunter subsequently learnt, been printed over night in accordance with a Resolution passed at a students' meeting; that ringleaders had been posted at the College entrance in the morning and by inducements and threats had sought to force the tickets on other students who were on their way to College. Mr. Hunter directed the names of those wearing badges to be taken and the badges to be removed—an order which was obeyed after some hesitation. J. Ramachandra Rao, who had as already stated been readmitted to the College only a short time before on a solemn promise of good behaviour, was one of these, and was expelled on the spot—an action for which, in the opinion of Government, Mr. Hunter had every justification.

When the Principal visited the second lecture room, where the same state of things prevailed, and on a cry being raised of *Vande Mataram* clearly as a preconcerted signal (as indeed subsequently admitted by some of the students), from one of the verandahs, there was a general exodus of students from all the lecture rooms and verandahs, many of the students of the B. A. classes having resumed the badges which had previously been removed. It is perfectly obvious that the tickets and medals were worn with the deliberate intention of provoking the Principal to action which should serve as some sort of excuse for a secession. The students must have known perfectly well that he could not countenance proceedings which he had already forbidden, and the conduct of the students was an open and insolent defiance of all authority and discipline which it was impossible to tolerate.

Altogether some 171 students out of 222 seceded. One student, J. Ramachandra Rao, was actually expelled, and the others who left the College were subsequently declared to be suspended. So far as ascertained, about 25 students were absent on the occasion and 24 students took no part in the secession—three or four in each of the F. A. classes and 17 in the Junior B. A. Of the last named class only half seceded, while of the senior B. A. class every student who was present that day went out. In the course of the day a few students were brought back by their parents and guardians, who stated that they—the students seeking re-admission—had been carried away by a sudden impulse or had been intimidated. On making proper submission they were re-admitted. On the two following days between 20 and 30 other students were re-admitted on the same terms. Several parents and guardians came to see the Principal in person or wrote to him expressing complete disapproval of the students' conduct complaining of intimidation, and regretting that their sons and wards had been misled by irresponsible persons mischievously disposed. The behaviour of some of the hostel students was particularly bad, and until the Superintendent of the hostel intervened, the hostel reading room was used as a base of operations by seceding students engaged in intimidating waverers. One hostel student deliberately shut and barred the door and window of his room in the face of the Superintendent and the Principal. The College was closed for the vacation on the evening of the 26th April; but the Principal made arrangements for the re-admission of junior students who made due submission. Some 42 such students have since been re-admitted.

His excellency the Governor in Council considers that Mr. Hunter acted throughout with patience, discretion and forbearance, and his action in expelling J. Ramachandra Rao, and suspending the seceding students was thoroughly justified. Forty-two students Mr. Hunter re-admitted on their tendering an apology. In regard to these, Government do not desire to interfere with the discretion exercised by the Principal, nor with any action that may be taken. Regarding the students who did not attend the College on the 23rd April, the Government are unable to pass lightly over the total disregard and defiance of discipline shown by the students of the College in the present case, and are convinced that severe punishment is called for, not only as a measure of punishment duly merited by those implicated in the present out-break but also as a warning to students in other Schools and Colleges. The secession of students was not a single act of insubordination in which they may have been carried away by the excitement of the moment, but it was clearly shown to have been pre-arranged, and the culminating point in an organised scheme for defying the authority of and the disciplinary orders issued by the Principal. The students had received ample advice and notice from the Principal as to what would be the result of continued disregard of his orders.

The Government accordingly resolve—(1) That Hari Sarvotthama Rao, M. A. be de-barred from employment as a teacher in any Government aided school or College.

(2) That as to Ramachandra Rao, the Director of Public Instruction be requested to move the Syndicate to debar him altogether from appearing for the B. A. degree, that his term and transfer certificates be refused and that he be not re-admitted into any Government or aided College.

(3) That to those students of the fourth year class, who possess all the term certificate required by the University for any Division of the B. A. Degree Examination, the Director of Public Instruction be requested to move the Syndicate to debar them from appearing for any branch of the B. A. Degree Examination for a period of two years. None of the seceding students belonging to this class will be permitted to continue their studies for any branch of the B. A. degree either in the Rajahmundry College or in any other Government or aided College, and to such of them as do not possess term or transfer certificates, these certificates will be refused.

(4) That the junior students who were under suspension on the 20th May, 1907, be expelled; the grant of term and transfer certificates refused to them and that they be not readmitted into any Government or aided Colleges for a period of one year, and in no case will they be readmitted into the Rajahmundry College.

(5) That as to those of them who are students of the second year class and who possess all the term certificates required by the University for the First-in-Arts Examination, the Director of Public Instruction be requested to move the Syndicate to debar them from appearing for that examination for the period of one year.

The Chingleput Reformatory.

IN LIEUTENANT COLONEL J. C. MARSDEN, I. M. S., the Superintendent, and Mr. J. W. COOMBES, the Deputy Superintendent, the Chingleput Reformatory School possesses two officers who as the Director of Public Instruction remarks in reviewing the Report for 1906, "take a warm interest in the welfare and progress of the pupils," The Institution, therefore, is fortunate in its administration, which continued to be efficient during the year. The usefulness of the institution was somewhat restricted for want of accommodation and no less than fourteen applications for admission had to be refused: but the question of improved accommodation is receiving attention. A Special Committee was appointed by Government to consider the question of additional accommodation, and Government have passed final orders accepting all its recommendations. One of the chief recommendations is the removal of the Sub-Jail, which is situated within the precincts of the Reformatory, to another place, and the dismantling of the building known as the "Thair Mahal" in which it is now located, in order to make room chiefly for a second schoolroom. The Committee at first hesitated to recommend the pulling down of this quaint building, as it is the last architectural remains of the Vijianagar line of Kings in this part of India; but as extension in any other direction was impossible without this measure being adopted, sentiment had to give way to necessity.

The expenditure involved in carrying out the improvements suggested by the Committee will be over Rs. 1 lakh, and we think that Government would do well to stop the extension of the Chingleput Reformatory and to spend the money in establishing another Reformatory in some other locality, where the more vicious boys might be segregated, or where senior boys from fourteen years of age and upwards might be sent, the Chingleput Reformatory being reserved for boys below fourteen. In Great Britain, there are Industrial Schools and Reformatory Schools, and to the latter institutions are sent juvenile offenders up to the age of sixteen who have been convicted of an offence punishable with penal servitude or imprisonment. A great amount of harm must result from the association of vicious characters with juveniles less hardened and from the association of juniors with seniors. And, therefore, the senior or Reformatory Schools are reserved for actual delinquents, while the junior or Industrial Schools are for potential delinquents. If the system of having two different classes of schools were introduced into India, it would probably be a step in the right direction. The number of pupils in the Chingleput Reformatory at present warrants such a step being taken, for the number is more than sufficiently

large for the introduction of the family system and domestic feelings and pupils into the school. There is also another reason for the establishment of a second School, as the Chingleput institution suffers from the want of proper agricultural land, and in a country where agriculture forms the staple industry of the people this industry should undoubtedly form an important part of the instruction given to the boys.

Turning to the Report, we are glad to learn that the industrial training continued to be in a satisfactory condition and that drawing showed commendable advance. Ample provision seems to be made for general education and for physical training and recreation, and the boys are taught military marching and physical drill. Football is encouraged by a departmental Shield presented by Mr. COOMBES and a Silver Cup subscribed for by the residents of Chingleput. The state of health and the conduct and discipline of the School were on the whole good, and the Inspecting Officer reports that nothing could be more satisfactory than the demeanour of the boys and the general appearance of the Institution. The Rules of the School have recently been revised, and it is worthy of note that in the new Rules powers have been granted to Magistrates to deal with children of the criminal classes after release without their parents' consent. In this connection, one cannot help thinking that compulsory enlistment for those boys who possess a good physique would prevent many a pupil relapsing into crime or bad habits after his discharge. Some alterations in the Rules have also been made relating to the payment of money earned by the pupil during his stay in school. Hitherto, the whole of a boy's earnings was given to him on his discharge, and it is possible that this amount was either appropriated by the boy's parents or spent by him injudiciously. The Rule now provides that the amount should either be paid to the boy in the form of a monthly allowance in such instalments as he may deem desirable, or, if the boy prefers it, in starting him in business, including, if there is no reason to the contrary, the purchase of tools. We are glad to find that the Government of Madras have adopted this plan of compelling a boy to keep in touch with the Revenue-officials, who report to the school authorities, half yearly, on his character and occupation, rather than the plan adopted by the other Provincial Governments of granting small stipends to discharged boys for three years after their discharge, as a means whereby the School may keep in touch with them, a method which must have the effect of placing a premium on laziness.

There is another point to which we would draw attention, and that is with regard to the method of gauging the discipline prevailing in a School. In the Chingleput Reformatory, the total number of punishments for last year was 117, whereas in the Reformatories in the north of India the number is ridiculously small. For example, in the last Report of the Reformatory school at Chunar, United Provinces, the number of punishments was only 15, and yet in an ordinary school, or, for the matter of that, even in a well regulated family, the punishments are probably more numerous. The decrease in the number of punishments is viewed wrongly as a mark of improvement in the conduct of the boys, and we would therefore draw the attention of the Government of India to this important matter with a view to some uniform and better system of discipline being introduced into all Reformatories.

The Teachers College. A Satisfactory Report.

Mr. A. A. Hall, M. A., Principal, Teachers College, Saidapet, in the course of his Report on the working of the College during the year 1906, says:—

In the Normal section there were 72 students on the rolls on the 31st December, 1906. This is exactly the same number as we had on the 31st December, 1905. During the year under report, there was only one lady student under training and she was in the Second Collegiate grade

section. She came from the west coast. Five students in the L. T. section were relieved after six months training in the first term and one graduate was admitted for six months' training during the second term of 1906. Of the 72 students that were on the rolls on the last day of the year, eleven were paying students (two being sent by the Travancore Government, two from the Cochin, State, two from the Baroda State and five from Mission schools outside British territory) and 6 were in receipt of stipends (55 from Provincial funds, 3 from the Coorg Imperial funds and 3 from the Bangalore Municipality). The average number on the rolls was 74 and the average daily attendance 70.

In the Practising School there were 402 pupils on the 31st December, 1906, as against 409 on the corresponding date on the previous year. The average number on the rolls and the average daily attendance were 412 and 359 respectively.

The Kindergarten department under supervision of Miss C. L. Gillingham continues to be successful and popular. As in 1905, several masters and mistresses came from different parts of the Presidency during the year for a three months' course in the kindergarten principles and methods of teaching.

The College hostels continue to be popular. The students of the last year were permitted by me to go on excursions under the guidance of the manager of the hostels, the Head Clerk of the College, who arranged for their boarding and lodging *enroute*. During the year, they visited the Seven Pagodas, the Reformatory School at Chingleput, Conjeeveram, Pondicherry and other places of interest in the neighbourhood.

The health of the students throughout the year was excellent. Miss Fernandez, the only lady student that was under training last year, was given accommodation within the College premises. The average rate of boarding and lodging for all the hostels during the year was Rs. 10 for each student.

The total cost of maintaining the College up to the 31st December, 1906, was Rs. 51,434; the total income from fees amounted to Rs. 5,274 and we obtained from other sources Rs. 2,340. The net cost to Government of maintaining the College was Rs. 43,820 and the cost of educating each student was Rs. 592 against Rs. 597 of 1905 and Rs. 694 of 1904.

In conclusion, I think the College has had a fairly successful year. I feel, however that more might have been done for the students, if some of the members of the staff had been more efficient and highly qualified; especially was this noticeable towards the end of the year I hope and have reason to believe that it will receive the early and serious consideration of the Director of Public Instruction.

Government have passed the following Order on the Report :—

The Report shows some desirable improvements introduced in the methods of teaching and generally good work done during the year. The remarks of the Principal on the Practising Section are noted. His request for specialists to teach almost every subject in the High School course will be complied with as far as is possible.—*The Madras Mail*.

OUR EXCHANGE.

The Cinematograph in Education,

An interesting plea for the State recognition of the living picture as a valuable means of education is set forth in a brochure by Mr. C. Urban, F. L. S. while the opening statement to the effect that every hospital, scientific laboratory,

technical institute, and college is now as incomplete without its moving picture apparatus as it would be without its clinical instruments, its tubes, its lathes, and globes or maps, may be regarded as, to put it mildly, a little premature. The general idea that animated photography should be something more than a mere amusement for idle moments is undoubtedly sound. The author is at pains to demonstrate the widely different uses to which photography can be, and ought to be, applied. Difficult and unusual surgical operations can only be witnessed by a limited number of students, and even then there is very little time for them thoroughly to grasp the intricacies of the work and the skilful surgeon's methods. The cinematograph camera takes in every detail with absolute faithfulness; it forgets nothing, and will at any time repeat as often as may be desired the whole operation from beginning to end. Exception has been taken to this statement by a newspaper writer, who opined that the shaky and jerky movements of a living photograph are absolutely valueless as a guide to the medical student studying an intricate surgical operation. But these jerky and unlife-like movements are by no means an inherent part of the process, but are simply due to the carelessness of the man operating the projecting machine. Probably that newspaper critic was speaking upon the observation of some badly conducted entertainment, where no attention was paid to the proper speed of reproduction. In the book in question it is well urged that cinematographic records of all history—making events should be stored in national museums for the use of posterity, just as it has often been suggested that phonographic records of the world's greatest speakers and singers should be similarly preserved, that their voices may be heard again after the speakers and singers are dead. Possibly it is easier to be altruistic for the benefit of posterity when one has not one's self to provide the cost. In both cases however, the expenditure of capital would not be very great, and it is to be hoped that the question will be certainly taken up.—*Chamber's Journal*.

Some Methods and Aims of History Teaching.

BY E. M. WILMOT-BUXTON.

ONE of the most surprising things that are still heard in the educational world is that children find the history lesson dull and uninteresting. Yet there are few subjects of whose method of teaching we hear more nowadays, and it may be interesting, from a practical teacher's point of view, to trace out some of the reasons for its comparative failure in awakening that interest which we all agree to be the best of a good lesson.

Some of these reasons may perhaps be roughly classified as too much, or rather, too stereotyped method, radically bad method, and no method at all. Considering these in their reverse order, we will trust that there are not many schools left where the history hour was spent by each pupil in droning through it

turn a paragraph of dreary facts with no apparent connection, whilst the teacher made up the register or corrected exercises.

The radically bad methods of the past are also, we hope, quickly vanishing under the influence of good training colleges and "born" teachers. But they die hard. Some of us can remember being made to learn a page of the history book by heart, and repeat it to the teacher word for word, being ordered severely to begin all over again if an "and" or "then" was misplaced. But I am not sure that this method, well calculated as it was to make the history book a hateful sight, was worse than one which I heard advocated the other day by the head mistress of a very modern school. "My idea of teaching history", she said, "is that a girl should study one small and succinct compendium so thoroughly that when asked, 'What do you know of Trial by Jury?' she should say to herself 'That comes on page 104'. Having 'placed' the information thus, she would immediately recall the page so as mentally to read it off—and the thing would be done."

If this is all we aim at attaining, by all means let us banish the subject from our schools for ever.

A somewhat lengthy experience of teaching history to pupils of all ages has brought me, personally, to the conclusion that there is no one "best" method, and that to try to keep to one for any length of time is almost bound to result in dulness and lack of enthusiasm on the part of the pupil.

I do not only mean that the method should vary according to the age and capacity of the pupils—that is, of course, a common place of teaching; but that it is equally necessary to vary the lessons in the same form so that the pupil may never be absolutely certain what is in store for him. Monotony of treatment, that bugbear of education, will spoil the most exciting episode of history. And since we have not one aim, but many, to set before us in teaching this particular subject, it is unlikely that one method would touch them all.

First and foremost then, we want to rouse our children to a vivid sense of the glory and splendour of past days, to awaken their interest in men of like flesh and blood with themselves, who lived in troublous times may be, and climbed by rough ways to the stars. This is, of course, the easiest to attain of all our historical aims. The normal child of any age loves a story, delights to hear what other people are doing or have done, and likes it all the better, in these matter-of-fact days, if it is true. Let us see to it, then, that the picturesque and the story element is never wanting in the lesson. And since, either from instincts inherited from bookless ancestors, or because the finest book, being but an artificial product, will never rival the natural living voice, the story will be always more interesting if it comes first from the lips of the teacher instead of from the printed page. So let the stirring episode be told with all wealth of detail and picturesque language that the teacher has at command, and let him, above all, show personal enthusiasm in his subject. The most enthralling description falls very flat and lifeless on the ears of the class if it is told in perfect language, but with a

cold and distant manner, as if the interest of the speaker was merely impersonal, and the subject itself very far removed.

Here, too, the lesson may be varied in many ways. Instead of telling the story, the teacher may set up a picture or a series of pictures on the board, and with a few explanatory words let them tell their own story. Or some historical tale, read at home or in the literature class, may be discussed and its basis of history enlarged upon. Or a clever and imaginative teacher may invest his own tale, in order to make the class realise the actual events he is discussing, and when he has dismissed his fictitious characters for those of real history, he will not often find that interest in the latter has diminished. This may be objected to on the score that history and fable will become mixed in the child's mind. But I think any practical teacher may be trusted to see that this is not the case. In one form or another, then, let our aim be to arouse interest in the human story element first of all. And our next aim touches this very closely: it should be to inculcate the faculties of reverence and respect, those old-fashioned qualities so fast disappearing from the younger generation. There is no better subject than history for this purpose. "Let us now praise noble men and our fathers that begot us." But first let us see that the text-books we give our children are on the right lines in this respect. There has crept of late into some of our popular history and literature books a hateful spirit of jocular flippancy, probably arising from the worthy motive of avoiding dulness, but which runs to the other extreme when it leads children to pass the same kind of shallow, mocking criticism on the great institutions and noble characters of the past. For the ready laugh of schoolboy superiority is dearly bought at the price of the spirit of admiration and reverence that says to a right-minded lad, "Go thou and do likewise".

Perhaps one of the best ways of impressing this spirit on our pupils is to make some of our history lessons almost entirely biographical, and to group all the events of a short period round the most prominent person in it. For example, the first seventeen years of Henry VIII's reign would naturally have Wolsey as their centre; the pupils should be made to realise the *man*, and then they will readily connect with him the different incidents of the time as they affect or are affected by that colossal figure. This will give the opportunity for another change of method. Let the teacher once get his class thoroughly to grasp the character of the central figure, and he will not need to tell the children the details of events; it will be an interesting independent bit of "research" work for them to find these for themselves from any books at their command, and to consider what line concerning them the central figure will take or how they will affect him.

Thus, if the character of Walpole and his social environment be clearly understood, the intricate home and foreign policy of his day becomes distinct and interesting, and can be generally deduced by the pupil himself.

This brings us to our next aim—to encourage the pupil to work for himself, not merely to reproduce the words of his teacher or his book. The examiners of the Local Examinations frequently report that it is the commonest thing in the world to find exactly the same phrases occurring in the answers of one candidate after another, who come from the same school or who use the same text-book. This surely ought not to be.

Independent work and expression are absolutely necessary both as a test of assimilation and as a preliminary training for the actual research which advanced work in history always requires. The great question, indeed, is how to get something of this kind done by pupils of school age. The American plan is to give a subject and to get each member of the class to read up and bring to the lesson one particular aspect of it.

Personally, I have found this method unworkable save with a very small class of very able pupils. The average child would never know more than his own side of the subject, for the delivery of the other sides of the question would seldom be emphatic enough to arrest attention, and the whole point of the method fails if the teacher gives the entire lesson over again. A more practical way is to give out the subject beforehand, indicating briefly the chief points of view to be considered, and naming the several books which treat each part of the subject most successfully. The pupils then bring their acquired knowledge to class, and with the help of a few leading questions can be made to give, between them, a fairly full treatment of the subject. This method is, of course, for older pupils with some command of a library, but for the too-numerous "one-book" children the same plan can be carried out, though on narrower lines. The chief advantages of this method are that the child learns to use a book—a lesson by no means always learnt in school-days; and that he really does the hard work himself instead of lending a more or less polite ear to the result of his teacher's investigations.

This brings us once more to the question of text-books. It is a very common complaint brought against school-books that they are not expressed in sufficiently easy language. But while Johnsonian English, hand in hand with ponderous dullness, is most emphatically to be avoided, it seems a mistake to give even young children books written in such very simple language that they scarcely ever have to grapple with a new word or meet with a novel form of sentence. My own experience is that children love new words if they are not choked with them; and that the history book, if properly related to the history lesson, is one valuable means of enlarging their limited vocabulary.

Besides the want of variety of method, another common cause of lack of interest is that too much time is given to the detailed study of "periods" before a proper perspective of history is obtained. And this brings us face to face at once with the subject of the syllabus, often in itself the whole head and cause of the offence. Too much detail for the Lower, too much exclusively English history for the Middle, too many "lectures" for the Upper School—these are the chief

reasons for boredom and dislike. Happily the days are really past when a High School girl could truly say, "I hate history, for history is to me the reign of Henry II. Form after form as I moved up the school I hoped to get on to some one else. But it was always Henry II." Such absolute want of collaboration between the various class-teachers would be impossible nowadays. Yet still we have not quite decided that bold, rapid, brief outlines of events, with rather fuller biographical detail, giving a bird's-eye view of the whole of English history in a year at the rate of two lessons a week, is the best ground-work for the lower classes, even after the "chronological story" stage of the first and second forms has been passed. The last aim we will mention—though the list is by no means exhausted—is the cultivation of the child's imagination. Many thoughtful teachers are beginning to realise with dismay that the faculty of imagination is fast disappearing from our midst, and that at an age when it should be naturally most free and vivid it is in many children almost extinct.

We have only ourselves to blame, of course. The lack of good literature, imagination's proper food, "snippets" of teaching in all subjects, too much given to "exact" work in elementary science and mathematics, are all tending to make our pupils matter-of-fact, prosaic, "sensible" perhaps, but neither original nor imaginative. Hence the value is doubled of any subject that can counteract this tendency. Here, of course, I join issue with those who say that history is only valuable when it is taught as a science. This view seems to me to be only very partially true. If it were meant that history should be taught logically, I would be the last to object to that as one among many other methods. If we cannot have logic in our schools, history is perhaps its best equivalent, for it trains the pupil in deduction, in tracing out cause and effect, in finding the universal in the particular, and in all logical methods of thought. But it is much more than a mere science of sociology. It is the living story of humanity, and anything that reduces it to a dead collection of facts, the *data* of observations and inquiry, does its students a great injustice. If properly taught, the most matter-of-fact child will have to exercise his flagging faculty of imagination in order to see with his mental eye that which the teacher puts before him; and no good teacher will rest till he gets not only words but "mind-pictures" from him. For let us be quite clear that history does not consist of words or text-books. It is the life-story of nations, the embodiment of great thoughts in action, and this is why we must insist on its being taught as one of the most living and human of the subjects of the school curriculum.—*School.*

Essays and Essay-Writing.

There is probably no question which the candidate in any examination looks forward to with more apprehension than the request to "write an essay on one

of the following subjects." On history or geography or mathematics he is sure of some facts which will be serviceable; but in this exercise he feels altogether uncertain. And yet there is no better test of a student's mental ability, provided that the subjects set by the examiner are reasonable. The test should present no very great difficulty to the student who has properly prepared for it. It is, fortunately, a subject for which the candidate cannot *cram*, and is therefore a better test of all-round ability than any other paper.

An essay is some forty or fifty lines of composition, representing more or less the writer's own views and ideas on some particular topic. It must be interesting, well arranged, and well expressed. A very cursory examination will reveal the fact that the ability to write a good essay depends upon two things—(a) a sufficient knowledge of the subject proposed; and (b) the power of selecting suitable facts and ideas, arranging them in logical order, and expressing them in good English. The first depends upon the general reading of the student. To any one who has limited his attention and thought to the ordinary book subjects, and not taken a wide and intelligent interest in the general topics of the day, it is naturally an impossible task to write a good essay. How is this wide, one might almost say encyclopædic, knowledge to be obtained? Evidently it is a long task, but at the same time a most delightful one. The habit of accurate observation and clear thinking must be carefully and assiduously cultivated. There must be a considerable range of reading—standard English authors in prose and poetry, journals, reviews, and good newspapers. In the course of this reading the student is unconsciously absorbing ideas which will be mentally digested and stored away in the memory, ready for use when needed. He will also meet with words, references, statements, quotations which he does not understand. If his attention is not concentrated and keen, he will pass them by, and so obtain a hazy indefinite conception of what he is reading, which "woolliness" is one of the greatest hindrances to any real progress. A tale is told of a university student who said that he read about as many pages as his companion did books, and yet he was always first in examinations. Whether true or not, the idea underlying the story is the right one to pursue—a little and well done is better than much superficially studied. Nothing should be passed which is not thoroughly understood. A notebook should be kept in which any striking ideas may be jotted down, the meaning of allusions, etc., entered. The mere effort of writing down will impress it upon the memory. Every young reader should possess a few good books of reference—for example, the *Harnsworth Encyclopædia*, *Brewer's Dictionary of Phrase and Fable* (Cassell), *Whitaker's Almanack*, *Bartlett's Familiar Quotations*, which will be of continual use in reading.

To the average boy or girl this will appear a slow and tedious work, dry in the extreme. The natural tendency is to skim through a book, picking out what is interesting, and leaving severely alone what is apparently dull; but the way of pleasure is very rarely the way of success.

"The heights by great men reached and kept
Were not attained by sudden flight,
But they, while their companions slept,
Were toiling upward in the night."

The first steps are naturally slow, but as the mind becomes well stored with information progress is more and more rapid, the pleasure in reading and amassing knowledge is keener, and the student soon soars far above those who still remain sipping here and there like aimless butterflies.

There are many books published which supply in condensed form the materials for essays on common subjects. They may be consulted occasionally, but it is one's *own* work which ultimately counts. I have been asked dozens of times, "Will you tell me how to write a good essay?" as though all that was needed was a formula or prescription on a post card. There must be this steady accumulation of accurate and useful knowledge—"slow and sure, hiving wisdom with each studious year."

And now supposing the student well armed with facts and ideas, there is the second part of the exercise—the logical arrangement and the expression in good English. The possession of a paint-box does not make one a painter, nor the possession of a piano a musician, nor does the knowledge of facts make one a brilliant essayist. Writing good English is an art, and, like all arts, is only attained by constant practice, by following certain fundamental rules, by merciless self-criticism and by dissatisfaction with one's best. The masters of English prose do not produce their best without effort. Ruskin said it took him forty years to be able to write a good sentence; Tennyson rewrote some of his poems many times before they satisfied him; Gray took seven years to polish the *Elegy* into its present form. Their first attempts were doubtless good, but they felt they were not the best, and the *best* alone is worth aiming at. But you cannot get the best effects with a limited vocabulary—it is like painting a picture in primary colours or composing music in one key. According to Sharon Turner, the people in some villages never use more than 500 or 600 words, an educated man in conversation 3,000 to 4,000, a good writer 8,000 to 10,000, while Shakespeares stands first with about 18,000.

A good vocabulary can be obtained by extensive reading and continual use of a good dictionary. A most important part of an essay is the logical arrangement of ideas. The mind in thinking over any subject produces from the storehouse of memory ideas which come in any order, and which need sorting and arrangement. Before commencing to work, a skeleton outline or plan should always be jotted down and adhered to. This will prevent confusion and repetition of ideas, a very common fault with beginners.

The most difficult thing to acquire is *style*, a somewhat hazy matter to define in any subject. In some passages we are charmed with the easy flow of the sentence, the music of the words, the niceties of expression, and we say the

writer possesses a good style. In other cases the sentences are disjointed and abrupt, the words are not well chosen, ideas are not well expressed—there is something very unattractive and uncouth : this is bad style. As in any art there is in the earlier stages a good deal of imitative work, so should there be in composition. Take a paragraph from any good writer, and read it through carefully a few times; then closing the book, endeavour to reproduce it as closely as possible. Careful comparison will soon show where the writer's arrangement and choice of words are preferable to your own. In this way you are acquiring a number of useful combinations of words, and although your progress may be very slow it is sure. Write one or two essays each week, read up the subject if you do not know already sufficient about it, make out your plan, write out the exercise in rough and then again in your best. When complete, proceed to criticise it, to find all the faults you can; for the ability to detect faults is the surest way of avoiding them. Reading the essay aloud will frequently reveal awkward phrases or ill-chosen words which the eye has not detected. It is by the continual correction of little points that excellence is attained, as a sculptor fashions a beautiful statue by continual chipping of small fragments.—*The Practical Teacher*.

Educating Imperially.

It was a happy inspiration of the League of the Empire to turn to account the visit of the Colonial Premiers and to organize in connexion with it an Imperial Conference on Education. To Lord Meath belongs the chief credit for the conception, and his fellow-workers on the Council have spared no pains in elaborating for nearly a full year their plans and producing the varied and comprehensive programme presented to the Congress on Empire day. The proceedings of the opening ceremony are reported in another column, but we prefer to reserve the rest of our report till next month, when we can embrace the discussions as a whole. All we can attempt at present is to consider generally what the Conference aims at and how far these aims are desirable and realizable.

We are all, in a sense, Imperialists, and can all echo Mr. Kipling's question
What can they know of England who only England know?

It may not be true in politics that to know all is to pardon all; yet it is hardly an exaggeration to say that half of the misunderstandings and differences between nationalities and races are due to ignorance or imperfect knowledge. It was a pathetic story that Dr. Starkey told of Irish children who when asked how they would go to London all answered; "By Kingston", but when further questioned which was nearer, London or New York, responded with one voice: "New York". To interest primarily the teachers, and through the teachers the pupils, in the British Empire is a worthy endeavour, and one that such meetings as these will undoubtedly stimulate.

There is another point in which we are all agreed. In the history of education our statesmen and politicians are sadly to seek. We remember not long ago a Minister of Education inquiring whether there were any denominational schools in Germany. For such men to learn, as can only be learnt by personal intercourse, how Canada and Victoria, to take the opposite extreme, have solved the religious difficulty would remove many prejudices and conduce to more enlightened views.

It is only when we examine the means suggested for attaining these ends that we grow somewhat sceptical, and fear that zeal may outrun discretion. Take the first subject on the agenda, "The interchange of teachers and inspectors between different parts of the Empire". The average cost of each such interchange, Prof. Sadler calculates, would be £80, simply for travelling expenses. This in itself would limit the numbers; but there are not many head masters who would be prepared to lose for a year an efficient member of their staff, on the chance of getting an equally efficient master from New Zealand or the Strait Settlements to replace him. And what is to become of the New Zealander if he proves a failure or there is incompatibility of temper? It would be like choosing a wife through a matrimonial agency. For mutual knowledge we must rather look to such enterprises as the Mosely visit, the travelling scholarships, and that admirable American institution, the Sabbatical Year.

The one practical outcome of the Conference which we hope and trust to see is the establishment of the Education Bureau for the Empire. It would do for our colonies all the Office of Special Inquiries now does, much more than that overworked and understaffed branch of the Board of Education is unable to attempt. It would not only collect information and answer inquiries, but it would suggest opening for young teachers, notify posts vacant, and act, in short, as a clearance house. It might also in time act as a court of appeal, and prevent those cases of wrongful dismissal, now rarer than they used to be, which have made English teachers hesitate to accept appointments in some of our colonies.—*Journal of Education*.

In this connection we give below the admirable speech made by Mr. Belfour at the conference which was the outcome of the action taken by the League of the Empire.

It is absolutely necessary that public opinion in some form or other shall be brought to bear upon Universities as upon every other great activity or organization. It is not easy to see how that public opinion is to be brought directly to bear. Directly you organize public opinion, in the form of a department or otherwise, you run a certain class of dangers. If you leave it unorganized you may render it very powerless, and even if it be not powerless, let us not forget that public opinion itself is very apt to be unenlightened, and in no sphere more so than in the particular matters in which we are interested—namely, the higher education and research.

(Cheers.)

THE OVERRATING OF EXAMINATIONS.

"I believe that it is largely due, not to the maleficent influence of any Government department or any municipality, but to the inherent ignorance of public opinion, that we have got to

overrate, in the preposterous manner in which we do overrate, the value and importance of competition, of examinations, in our Universities. I think the president of King's College made a brief reference to that evil—and I am quite sure it is an evil which cannot be overrated. I do not mean to say that you can dispense with examinations. I venture on no such dogmatic utterance; but I do think it of importance that we should have present to our minds the inevitable evils which examinations carry in their train, or the system of competitive examinations as it has been developed of recent years in our great Universities. The truth is that a book which is read for examination purposes is a book which has been read wrongly. (Hear, hear.) Every student ought to read a book, not to answer the questions of somebody else, but to answer his own questions. (Hear, hear.) The modern plan, under which it would almost seem as if the highest work of our Universities consisted in a perennial contest between the examiner, on the one side, and the coach, on the other, over the passive body of the examinee (laughter), is really a dereliction and a falling away from all that is highest in the idea of study and investigation. I do not know how far these evils can be eliminated from our system so far as the pre-graduate course is concerned. I have to leave the solution of that problem to those who are directly responsible for the government of our Universities.

THE IMPORTANCE OF POST-GRADUATE STUDY.

But, at all events, let us rejoice in common that there is one branch of University work, of growing interest and importance, daily receiving more recognition from all that is best in the intellectual life of the country—I mean the post graduate course. There the slavery of examinations is a thing of the past, the intellectual servitude in which the pupil has hitherto been is a thing he may put on one side; and he is in the happy position of being able to interrogate nature and to study history with the view of carrying out his own line of investigation and research instead of being in a perpetual subservience to the idea whether such and such a subject is worth getting up for examination purposes, whether he may not have omitted to read with sufficient attention something which to him is perfectly useless, perfectly barren, perfectly uninteresting, but on which some question may be asked by a too curious examiner. He is in the position of having his teacher as his fellowworker, of having a man at whose feet he has come to sit. Professor Rutherford has been mentioned. We could mention cases like that of Professor Rutherford, to whose aid and assistance students come from all parts of the world at once as pupils and as fellow workers. That is the proper position from which the most advantage can be extracted from the concentration of intellectual life at one of our great Universities, and it is the post-graduate course which I hope to see rapidly and effectively developed in all the Universities of this country and of the Colonies. And let me observe that it is in connexion with the post-graduate course that there can be a kind of co-operation between us and the more distant parts of the Empire, which is impossible with regard to the earlier and lower stages of University culture. In the primary and secondary schools of a country evidently only the children or young men of the district within reach can attend; and no co-operation with other countries or with the Colonies is possible except after mutual consultation, after consideration of the problems common to education in all part of the world, after exchange of information which I hope will be one of the outcomes of this Conference. But when you leave the lower stages of education, and when you come to the post-graduate course, you get an intercommunication between different parts of the Empire which is closer and which may be more fruitful; for it is, not merely the communication of ideas, it is not merely a central bureau of information, invaluable as I believe such a bureau would be, it is the actual interchange of students. If we can so arrange the post-graduate course of our Universities that it will be thought a normal and natural thing for any man who has the talent and the time to devote his life to investigation, first, to get his education at one of the Universities of his own country, and then to go and conclude that education in a post-graduate course in one of our Colonies, how great will be the advantage, not merely to the students, but to the communities which will be brought together by a tie which may unite

us all in a common interest in these higher subjects. I therefore think that, though at first sight the subject of examinations and the allied subject of University training free from examination may seem somewhat alien to the topic of a closer communication between Great Britain and other parts of the Empire in the matter of education, they are, in fact, closely allied—they are topics which naturally lead one into the other. And I earnestly hope that one of the outcomes of these Conferences, and certainly the outcome in which I take the greatest interest will be such development in post-graduate system, and such a mutual arrangement between the Universities in all parts of the Empire, as shall not only stimulate post-graduate research, but shall enable and encourage that research to be carried on in different parts of the empire by members travelling from one part of the Empire to the other and thus bringing home to us even more than it is brought home already the close community of interest not only in things material, but in things of the highest intellect and research, which should bind together the citizens of a common Empire."

NOTES ON BOOKS.

MESSRS. George Bell & Co., have published a new series of poetry books, called the York Poetry Books. They have the great merit of being printed in good type. The books are fairly well graduated and representative; but in the laudable desire to avoid what is hackneyed the Editors would seem to have included a good deal that is not first rate. It is essential that the poetry read in Schools should consist exclusively of what is of the best. In this respect these Readers fail, though they may be found useful.

MESSRS. Black continue their editions of the waverly Novel for Schools. The edition before us is called the "Exam" edition. Could any more detestable name be chosen, or one more flagrantly opposed in spirit to the true aim of literature teaching. Surely the primary aim of such teaching is to inculcate a love for literature. A series which deliberately ignores this is not of much value. The introduction and notes are on a par with the title, and the less said about the type the better.

"ELEMENTARY English Grammar through Composition" is the title of a book by Mr. Rose published by Bell and Sons. The title suggests a sound treatment and in this we are not disappointed. To teach the formal aspect of English apart from the matter of it has been till lately the popular method. In India, unfortunately, this method still prevails, and the Indian boy has to learn in consequence, an immense quantity of Grammar which is utterly useless and unintelligible. It is to be hoped that an improvement may take place in this respect. As Mr. Rose says "the proper method of Grammar Teaching is oral, with the help of the black-board. Sentences should be constructed illustrating the various points, and questioned upon to elicit these points from the class. The livelier the questioning and the more in touch with actual teaching circumstances the sentences are, the better for the lesson. A text book is only necessary afterwards to ensure completeness of presentment, supply additional sentences for practice and give a summary of memory work for revision."

THE Third volume of the Oxford Geographies by Dr. Herbertson has now been published by the Clarendon Press. The series is one that hardly needs any recommendation. Dr. Herbertson's work is well-known and uniformly excellent, and this series is one that all teachers should study. The first volume "The Preliminary Geography" is largely descriptive in character, whilst the second volume "the Junior Geography" aims at giving a more definitely causal treatment, and special attention is drawn to the inter-relation between configuration, climate, vegetation, and human activities. In the third volume, "The Senior Geography", the method of considering the world according to its Natural Regions is adopted. The part which Geographical conditions, and the control of Geographical routes have played in the history of various countries is particularly emphasized, thus establishing a rational system of comparison in connection with political geography. There are over a hundred illustrations in the third volume, and these are clear and suggestive. The Series is one we strongly advise all schools to possess.

"A Hundred Years of Education Controversy" is the title of a pamphlet by Mr. J. McCabe, issued by Messrs. Watts & Co. It contains a brief historical review of the struggle in England between the Established Church and the Nonconformists as to the religious education to be given in state-aided or supported schools. Mr. McCabe maintains that the only solution of the difficulty is to confine national education to secular subjects, leaving the Churches to provide outside the schools what religious instruction may be desired by the parents.

News and Notes.

INDIAN.

DR. A. G. BOURNE F.R.S Director of Public Instruction, Madras, who is now at Home on furlough, has been granted an extension for four weeks. He will return to Madras about the middle of September.

The Secretary of State has appointed Mr. William Erlam Smith B.A., of Balliol College, Oxford, who is at present acting as temporary Professor of Natural Science at the Government College, Rangoon, to be a member of the Indian Educational Service and to succeed Dr. W. H. Wilson Professor of Chemistry in the Presidency College, Madras, when the latter retires in October next.

On the 31st December 1906, there were 303 students in the Madras Law College, or a decrease of 26 on the numbers for 1905 which were less by 42 than for the year 1904. This year, however the number has increased by 88, and on the 1st March stood at 391, the highest figure attained since 1899, and since the College was converted into a whole-time institution from the commencement of 1892. At the University examinations 42 per cent. of the students who appeared from the College for the R. I. were successful and 55 per cent. in the F. L. The principal considers these results very satisfactory. The percentage of successful students at the Pleaders' examination was so low as 25.

Auckland School, Simla, is losing its popular and distinguished principal, Miss. Strong, who retires next December. Her successor is likely to be Miss Turing, who has done good work in her Cathedral High School, Lahore.

Among changes in the personnel of the Indian Educational service are the following:—Col. H. D. Love, R. E., Principal of the Madras College of Engineering retires in a few weeks after a long and distinguished service of thirty years in that institution. Mr. C. Littlehailes, Professor, of Mathematics, Presidency College, Madras, acts for Mr. R. L. Jones, as Professor of Physics. Mr. H. Malim acts for Mr. Littlehailes. Mr. J. H. Stone, till recently Inspector of European and Training Schools has entered upon his duties as Principal of the Presidency College and Professor of English Literature. Mr. H. S. Duncan acts as Inspector of European and Training Schools. A Local contemporary takes exception to the last two appointments. It will require a great deal of proving to convince one that the work of the Inspector of European Schools is of such a technical and specialised character that an officer of sound common sense possessing fourteen years' experience of educational work in this Presidency cannot efficiently discharge his duties with a fortnight's experience.

Mr. A. C. Pranatirthara Iyer, Inspector of Schools, Second Circle, paid his annual visit of inspection to the Wardlaw College, Bellary from the 15th to the 17th instant. The Principal took him round the classes while they were at work and showed him the laboratory, the reading room, consulting and lending libraries. He was specially interested in the laboratory building, as it originally contained a printing press, where the first Canarese Bible was printed. On the last day of the inspection he held an informal conference with the teachers and offered a few suggestions for improvement in teaching particular subjects. He was much pleased with the work of the College in its various departments and remarked with regard to its tone, discipline, dress and manners that it would well serve as a model to other institutions. At the conclusion of the meeting, Mr. J. P. Cotelingam, the Principal, warmly congratulated the Inspector, who was formerly Headmaster of the local Municipal High School, on his present appointment.

Dr. Mitchell, the Principal of His Highness the Maharajah's College, Trivandrum who went Home on furlough, is expected back at the beginning of next month.

Miss S. B. Williams, M. A., Principal of His Highness the Maharajah's College and High School for Girls, and Mr. T. Lakshmana Pillai, B. A., Assistant Officer in charge of the Central Account and Audit Office, have been made members of the Travancore State Text-Book Committee.

Medical Research in India.—Major Ronald Ross's article in *Nature* is a vigorous indictment of the methods adopted by Government towards the Service of which he was formerly a member and particularly an attack upon the neglect to encourage original research. While there are few who will be disposed to admit that the indictment is entirely proved, there are probably still fewer who will contend that in the past the attitude of the Civil and Military authorities in India towards medical research has been as sympathetic and generous as it ought to have been. Even Major Ronald Ross is constrained to admit that there has been an improvement of late years but it is beyond question that many golden opportunities have been wasted, and that even now much more might be done than is assumed to be possible in official circles. Major Ross writes of the Malaria problem with a zeal that is scarcely tempered by discretion, but while we are not prepared to accept his assertion that the want of progress has been due to laziness on the part of Medical Officers, encouraged by general official indifference, his paper undoubtedly raises the question whether the best use is being made of the funds at the disposal of the medical authorities.

ties, and the further question whether a more generous allotment of funds for medical and sanitary purposes would not be justified. We dissent entirely from the suggestion that the sanitary departments do not do the work for which they are paid, but we are by no means convinced that all that is possible is being done. An exaggerated statement of the case may well be forgiven if it forces attention upon the defects of the existing system.—*The Pioneer*.

Rev. J. Knowles, who was for a long time Missionary in Travancore and who in conjunction with Mr. Garthwaite invented the Braille System of Alphabet for the Blind, has now suggested the Romanic script for the National alphabet for India. We understand that the Director General of Education has taken up the suggestion for consideration.

An Educational Conference was held about the middle of July at Coimbatore with Mr. C. W. Moss, Ag. Inspector of Schools in the Chair. On the motion of Mr. W. M. Theobald it was resolved that in regard to the pension fund for teachers, the Educational Department be requested to depute a special officer to collect information in consultation with representative Managers of Schools and Teachers and to draw up a scheme. Another resolution was to the effect that the Director of Public Instruction be requested to make Rule 86 (1) relating to secondary schools under public management applicable to schools under private management instead of Rule 29 of the Educational Code.

A NEW ENGLISH SCHOOL AT POONA.

LAYING OF THE CORNER STONE BY H. E. LORD LAMINGTON.

Dr. Bhandarkar gave a brief history of the present educational movement in Western India. The Secretary related the history of the Deccan Education Society and referred to the site of the school which was formerly the residence of Nana Farnavis, the famous Mahratta statesman.

His Excellency, having performed the ceremony, made a speech regretting the delay in opening the institution, owing to the terrible outbreak of the plague last year, and congratulated the Society on the success of its pupils. He said that the Plague had formed a powerful factor in the history of the schools at Poona, and he hoped that the excellent training given in the school, together with the efforts the Government were taking to avert the dire results of the plague, would enable the pupils to progress as in former times. He spoke of the various Governors who had taken an interest in their Society, and regretted that the Government could not afford more assistance, as they had embarked on a scheme of Secondary education and also grants to Primary schools. He thought that in that historical and intellectual educational centre there would be no difficulty in obtaining funds. He considered that there could be no better form of *Swadeshi* than the Circular issued by the Government of India to the schools. He was proud to think that their Presidency stood ahead of all India. They had no reason to find any fault with the teachers or the pupils in regard to discipline or behaviour. He trusted that such principles would always animate the masters and pupils of to-day as would fit them to be the citizens of to-morrow, when they might indulge in their political proclivities.

He hoped that the pupils would train their bodies and develop their characters, so that when they left school they would be equipped to lead lives useful to themselves and beneficial to society.

HOME.

AT THE federal Conference on Education held in London on the 30th May, the subject discussed was "Universities and the Empire." The discussion was opened by Dr. Headlam, Principal of King's College, and Mr. Balfour delivered an important speech, in which he dwelt on the preposterous over-rating of examinations, declared that the existing system in that regard was really a falling away from all that was highest in the idea of study and investigation, and looked on the post-graduate course as the highest and most valuable part of the work of the Universities. It was also the department in which there were the greatest possibilities of interchange of students and co-operation in work among the Universities of the Empire. After a discussion, a Resolution was carried declaring it to be desirable that a Committee representative of the Universities be formed to investigate the possibility of exchange of information among the Universities of the Empire to their courses and standards.

HONORARY DEGREES.

The Honorary Degree of D. C. L. has been conferred at Oxford on twenty two gentlemen, including Prince Arthur of Connaught, Lord Loreburn, Sir Henry Campbell-Bannerman, Sir Edward Grey, Sir Antony Macdonnell, Sir John Strachey, Professor Herkomer and General Booth; the Degree of D. S. C. on six eminent scientists and the Degree of Litt. on seven gentlemen, including Mr. Rudyard Kipling.

THE MASTER OF BALLIOL.

Dr. James Davidson, Classical Fellow and Senior Dean of Balliol College, Oxford, has been elected Master in succession to Dr. Caird who has resigned. He is known to the literary world by his work on Polybius and the life of Cicero.

About a month ago in the Hall of Worcester College, Oxford, Dr. Nicholas Murray Butler, President of Columbia University, New York, was presented with a casket and an address in the name of a number of teachers in elementary and secondary schools in Great Britain and Ireland, as a mark of their gratitude for the great services rendered by him during their recent visit to America. Dr. T. H. Warren, the Vice-chancellor presided, and among others present were Mr. Alfred Moseley, Mr. Phipps, Professor Brown, (New York), Professor Cunliffe (Columbia University), the Warden of All Souls, the Rector of Lincoln, Professor Olding and Principals of a few colleges. Sir William Anson, M. P., said they were to offer some slight recognition to Dr. Butler, not only for his great educational work, but for the assistance he had rendered to the Moseley Commission. It was impossible, he said, to over estimate the value of studying foreign and American methods, and considering how far they could be adopted in England. He thought there was some fear that those who returned home after watching the educational methods of other countries would like to make a sweeping change and adopt other principles and practices. He did not think that was so. They could not pull down the foundations of their system, but they could infuse new life into their schools and colleges. There was an intense reality throughout the United States which they very much lacked in Great Britain. If they could create among their teachers a real desire not merely to impart knowledge, but to take care that knowledge got into the mind of the pupil by ascertaining the attitude of the pupil towards the instruction he was receiving, then, he thought, their education would march onwards by leaps and bounds. Dr. Butler had helped them in realising this ideal. The Vice-chancellor then presented Dr. Butler with a silver casket surmounted with the arms of Columbia University and an address which ran as follows:—"Presented to Nicholas Murray Butler, LL. D., D. Litt. *honoris causa*, Oxford, President of Columbia University, New York City, United States of America, by the British school teachers who visited the United States in the years 1906-07 in

grateful recognition of the many courtesies and kindnesses extended to them during their stay". Dr. Butler in suitably thanking them observed that this new era of internationalism in education was sure to promote the world's civilisation in its highest and most enduring form.

Harvard University has conferred the honorary, degree of LL.D. on Mr. Root, Secretary of State, Mr. Bryce, the British Ambassador, the Duke of the Abruzzi, and Professor Paul Vinogradoff, Professor of Jurisprudence at Oxford University.

Dr. Edmond Warre, late Headmaster of Eton, has received an album containing signed photographs of nearly every master and boy who was at Eton at the time of his resignation. There are upwards of 1,000 photographs. The album is bound in Eton blue morocco, and measures 20 in. by 15 in., and is about 5 in. thick. On the front cover are stamped in gold the arms of Dr. Warre and those of the College, with the date "1905" in the centre. On the bottom left-hand corner is the motto: *Solem quis dicere falsum audent?*

Among the recipients of Birthday Honours not mentioned by Reuter three weeks ago is Dr. Donaldson, the Principal of St. Andrews University, who is now Sir James Donaldson, his Knighthood coming as a recognition of great services to scholarship and Scottish University education. The Principal is now not far from being eighty years of age, his connection with the headship of the University dating from 1886. He resigned the professorship of Latin in Aberdeen University in order to come to St. Andrews, and there are many to attest the fact that a more shrewd or competent Principal could not have been selected.

The Rev. W.G. Rutherford, LL. D., Head-master of Westminster, until 1901, died some days since. He was classical master at St. Paul's School, London, and was the author of several valuable school books, chiefly editions of Greek Classics. During his Oxford career he achieved the rather rare distinction of obtaining honours both in Classics and Science.

The Madras Educational Exhibition 1907.

Place of Exhibition The Senate House, Madras.
Opening day 24th August 1907.

THE opening address will be delivered by the Honourable Mr P. S. Sivaswamy Iyer, B. A., B. L.

A series of papers on educational subjects will be read by experienced educationists during the Exhibition period.

MEDALS and Prizes will be given to the best exhibitors.

Rules for the guidance of the intending Exhibitors.

(1) The exhibits sent for competition should be the *bona-fide* work of teachers or pupils. (Moffusil exhibits should be sent so as to reach the Secretaries between the 25th July 1907 and the 5th August 1907. Exhibits sent by post should be addressed to the Secretaries, The Madras Educational Exhibition Committee, Mint Post Office, Madras, and all Railway parcels booked to No. 23, Palayappan street, near Seven Wells, Georgetown (Washermanpet Railway Station). Exhibits from the city of Madras should be sent to the Senate House on any day between the 1st and the 10th August 1907 between 10 A. M., and 5 P. M. (3) All exhibits must be sent prepaid. (4) Except in the case of loan exhibits approved by the committee, the payment of the cost of carriage will not be guaranteed. (5) On the back of each exhibit should be noted the name of the exhibitor and his full address. If the exhibit is for sale the price may be noted, but the owners will have to make their own private arrangements for the sale. (6) The exhibition committee is not responsible for any damage to exhibits. (7) The committee reserve to themselves the right to show only those exhibits which they consider worthy of exhibition. (8) Each exhibitor should send in a statement in the accompanying form duly filled in.

(a) Number of exhibits. (b) Name and description of each exhibit. The aim will have to be clearly stated. (c) Name of exhibitor. (d) Whether the exhibits are for competition or are sent as a loan. (e) Signature of the exhibitor. (f) Certificate to be signed in the case of the exhibits sent for competition.

This is to certify that the $\frac{\text{exhibit is}}{\text{exhibits are}}$ the *bona-fide* work of

$\frac{\text{teacher}}{\text{pupil}}$ of $\frac{\text{class}}{\text{form}}$ in the school.

Signature of the Manager or the Headmaster of the institution.

SUBRAHMANYAM,
MANICKAM CHETTY.

Secretaries.

Hints to Language Teachers

By Nora C. Usher, Language Teacher in Hamburg.

It may safely be said that the irregular verbs constitute a veritable Hill Difficulty in the way of all language teachers and students. In most schools, both at home and abroad, as soon as a child can repeat in a parrot-like fashion the three principal parts of these verbs, he is said to "know them by heart"; but never was there a greater delusion. Quite as well might one say of an infant who has learnt to recognise A, apple-pie, B, bit it, and so on, that he has learnt to read. As well might one assume that the carter who brings the load of bricks is able to build the house. Not that the learning by rote of that long and monotonous list should be altogether depreciated; on the contrary, parrot-like repetition is to a certain extent an important factor in language teaching; but the making that repetition the end and aim of the pupil's efforts cannot be too strongly denounced. Suppose that the scholar has "got by heart" this formidable list; that in English for instance, he is quite at home with "sew" and "sow," "ring" and "wring," and that he does not even falter when confronted with the idiosyncrasies of "to lie" and "to lay"; he has still only just touched the borderland of the infinitude of expressions to which these words supply the key. He has yet to discover that he must not say "the tree *puts* a shadow," "the servant *casts* coals on the fire," or "will you *take* that letter to me"; when he can distinguish how to use the verbs, then he knows them, not before.

As a means to this end it is good for each irregular verb to be taken in turn with its idioms and different shades of meaning. Let a note-book be kept for this purpose, with a separate page for each verb, leaving a space at the bottom for new idioms to be added when they are found. Two or three verbs thus thoroughly gone into will form a rich subject for one lesson weekly. For home work let the pupils prepare as many original sentences as they can, bringing in the verbs given, in a different sense and tense in each sentence; or else let them search their English readers for sentences illustrating the use of these verbs. Let each pupil read his list at the next lesson, and let the rest of the class stop him when he is wrong. This is an excellent class exercise; the competition between the scholars as to which will have the largest number of approved sentences is a splendid stimulus to intelligent study.

Idioms are generally stumbling-blocks. Let the pronunciation be perfect, let the grammar be faultless, the use of the idioms of a language will usually distinguish the native from the foreigner. A list of 500 or more idioms learnt by heart helps to obviate this evil. In addition to the verb note-book, pupils should have an idiom note-book, and ten new idioms should be given at each lesson. As home work, let the pupils write a little story, bringing in all the ten idioms without straining the sense. The novelty and puzzle of the exercise excites interest, and when all the stories are read aloud at the next lesson there should not be a dull scholar to be seen.

Another vexed question is in regard to composition. At the conference of German teachers at Munich in June 1906, mention was made of the "exclusion of composition"; but composition, if wisely corrected, is a most valuable exercise. The trouble is, that of many compositions, when fully corrected, there remains nothing of the original work of the pupil. To obviate this difficulty it is well to have two methods of correcting, a modified correction, and a complete correction. In the former, correct only absolute errors, grammatical or orthographical; if the meaning be clear, leave the style absolutely alone. In the latter, improve everything that can be improved, crossing out all superfluous words, substituting better words for those that remain; in short, thoroughly revise the composition. With beginners use only the modified form; with advanced pupils go through the exercise twice, first using the modified, afterwards the complete method of correction. When possible, simply indicate that there is a fault, and let the scholar find it out and correct it; a correction made by the student himself will be remembered twice as well as one that is made by the teacher. Choose the subjects for composition with a view to the taste of the writer; he will write far better on a subject that appeals to him. Some of the English compositions I have had from German pupils on such subjects as "A Day among the Heather", "What I see from the Window of my Room, A Trip on the Elbe," and so on, might serve as models for native students at home.

Many of the difficulties of a language teacher would vanish if he studied methods and rules less and his pupils more, if he left his desk and sat in the seat beside the scholar, trying for the moment to hear with his ears and speak with his tongue, and so to understand the obstacles in his way. As it is essential to gain the confidence of the pupil, there should be no partition between teachers and taught; a stiff, dogmatical language teacher can have only shy, reluctant pupils, and shyness and reluctance are utterly incompatible with fluency of speech.—*School.*

Unruly, Vagabond, and Criminal Children.

BY ARTHUR MACDONALD, WASHINGTON, D. C.

Honorary President of "the Third International Congress of Criminal Anthropology" of Europe and author of "Man and Abnormal Man."

It may not be without value to give the results of some studies of children, illustrating the close relation between Unruliness, Vagabondage, and Crime.

The main cause of Unruliness is perhaps the ignorance or neglect of parents. The child disobeys the parent and runs away from home, disobeys both parent and teacher and plays truant, tending towards vagabondage, which in turn leads to crime.

The unruly child can be destructive, indolent, malicious, violent, a liar, thief, assassin, and degenerate. Before giving illustrative cases a few facts as to unruly children in general may be noted.

In a study of the Washington School children by the writer, it was found that unruly boys have less height, sitting height, and weight than boys in general and are also inferior in head circumference.

It was also found that the unruly boys (that is, those unruly most of the time) constituted more than 5 per cent. of all the boys. Unruliness increases with age, as does laziness, reaching its maximum at fourteen. The number of unruly girls is so small as to be insignificant.

Unruliness increases with age. Crime also increases with age. A much larger proportion of boys are criminals than girls, a similar, if not greater, proportion of boys are unruly.

Nearest age.	Boys.			GIRLS.		
	Whole No.	Unruly Per ct.	Lazy Per ct.	Whole No.	Unruly Per ct.	Lazy Per ct.
All Ages	7,953	5.47	1.33	8,520	0.25	0.22
Six	147	2.72	0.68	131	...	...
Seven	533	3.38	0.19	508	0.19	...
Eight	787	3.81	0.26	754	0.13	0.39
Nine.....	878	4.56	0.68	883	0.11	0.11
Ten.....	930	4.84	1.40	939	0.21	...
Eleven.....	862	6.84	1.51	931	0.43	0.21
Twelve.....	986	7.20	1.52	876	0.23	0.34
Thirteen.....	926	6.70	1.73	969	0.31	0.10
Fourteen.....	786	8.16	2.17	833	0.12	0.60
Fifteen.....	51	5.87	1.70	655	0.61	0.61
Sixteen and over.....	502	1.86	2.20	1,044	0.10	...

The first manifestation of theft in children is in the family, where they take little things; then money. Such thefts are not regarded seriously, it being supposed the child will outgrow the propensity. But it will not be long before such a child, when good opportunity comes and the habit at home has made it bold enough, will steal from others. Thus the child, if not severely reprimanded, believing itself to be beyond punishment, begins to steal at school where it may not run any great risk. Having reached this stage, it is but a step to steal generally.

In every large school there are a small number of unruly children, who are the plague of the school, who take a great deal of the time of the teacher, as well as testing his patience. Kind treatment and persuasion are in vain; only force has any effect, and that may be temporary. They run away from school, steal all sorts of things, they are coarse, insolent, always ready for a fight. In class they

are the cause of continual disorder; they are not only lazy, but refuse to work. They are impulsive and irritable; will not allow anyone to controvert their ideas. They rise up without reason, talk loud and rebuke their comrades or teachers. Such children are abnormal, if not criminal, and need special care and training; otherwise they may spend some of their life in prison. They should not be allowed to contaminate the other pupils, and should be placed in special schools. They may be incapable of controlling themselves, they seem to be unstable in all their ways, mental and physical. They cannot control their attention; they no sooner commence to read than they wish to write or cipher; even in their plays they pass quickly from one game to another.

The destructive impulse is common in children, especially unruly children. By education and training it is usually controlled. But in certain cases this impulse is only temporarily suppressed and may manifest itself at the least provocation.

One child escaped from school through a window, jumped over a fence into a neighboring yard, and threw stones at the girls' school and broke several windows. The child had no motive, it simply wanted to satisfy its desire for destruction.

Some children have in addition to their destructive impulse a desire to molest others, by insulting them. One child used to go daily to a fruit store near school and make a noise in front of the store without any motive. One day he took dirt from the gutter and he threw it into the store.

When such children are questioned as to their motives, they invent motives or excuses, or hesitate and say they don't know. Some seem surprised that they should be asked to explain.

No. 1. She was nine years old, blond, long head (dolicocephalic), blue eyes, orbital arches prominent, flat nose, giving her a mongolian face. She was lame, and walked with a crutch. She was an alcoholic; coarse in her language, cynical and lewd, malicious, tricky, easily made angry, striking her associates without reason and amusing herself by tripping them up with her crutch.

There are violent children who show their propensities under slight provocation, as in a quarrel with a comrade; it seems to be impossible for them to control their temper. Others, however, act with premeditation and reflection. A certain child had a quarrel with one of his schoolmates. The teacher interfered, and the trouble seemed to be ended; but during recess the child procured a bottle and struck his comrade a dangerous blow on the neck.

The most of children who are vagabonds are, according to Laurent, not forced from necessity to run away from home. They are generally below the average age mentally; school work is difficult and odious to them. They commence to play truant and gradually remain away from school longer and longer. They undoubtedly find much pleasure in roaming about in liberty, free from reprimands of teachers and parents, free also to indulge themselves in all their vices.

It is almost always in summer they run away, sleeping on a bench, in a woodshed, lumber yard, or in some old abandoned building, and especially any place easy to enter without danger. Buildings near the canal are especially sought, where they can find fruit to eat, begging or stealing for the rest of their food.

The necessity of food makes every vagabond a beggar, and often a thief. While some children beg in a state of vagabondage, others beg occasionally, out of school hours, in order to buy some candy or other dainty. Others are forced to beg by their parents, who accompany them, or rent them out to others. But as before mentioned, few children are forced into such life. As will be seen, vagabondage is a dangerous habit, leading to a criminal career.

Vagabonds and beggars constitute a large proportion of the children arrested by the police. In large cities the street is a school for vagabondage, implanting immorality in the nature of the child.

Vagabondage depends sometimes on temperament. It may be due to accident or poverty. Two things can hold the child home: Solicitude on the part of the parents and the attraction of the fireside. But when parents are indifferent, or occupied away from home, when the fireside is sad and cold, the child may find the street more hospitable.

No. 2. He was arrested at about 11 o'clock at night at the door of a theatre. He showed no sign of degeneracy in himself nor in his antecedents, was twelve years of age. He could not write and could read only with difficulty. During the day time his parents could not exercise much supervision over him, of which fact he took advantage, staying away from school and becoming a vagabond in the streets of the city, where he always found little comrades to play with him. His great desire was to become a large boy and to work and earn his living, but he had no idea of the trade he wished to follow.

This case approaches those who desire no more to go to school, but to work in the country, considering a sojourn in the country a supreme pleasure. But those brought up in the country, who are discontent with their lot, desire to live in the city and work.

No. 3. This boy was illiterate; always a poor pupil; when not content with his parents, he would leave them two or three months. He would go to the railroad station and open the doors of carriages; for this he always received something, sometimes as much as a dollar a day. He would sleep in empty cars or bags. He did not desire to go to school any more where he is ordered about, where the teacher is bad or untruthful, because he said it was very bad in prison; but he had been in a reformatory and knew that the teacher's statement was in all points inexact.

No. 4. This boy (ten years of age) had a number of signs of degeneration as in form of his ears, defective palate, teeth badly implanted. He was small for his

age. He spent his time in the country with bad boys and declared he wanted to be an Indian and an assassin; the prospect of prison life or even the gallows did not frighten him. He was the son of an alcoholic.

No. 5. He was obviously a degenerate, nine years old. His mother had four children, three of whom were born at the seventh month. He had convulsions and a violent temper. At nine years of age he was vicious, and it was necessary to separate him from the others, whom he would strike or whose clothes he would tear; sometimes he would run into the class right in the midst of the lesson; he would imitate the movements of one swimming. During the night, when partial asleep, he would shake his head and would not awaken even if the wall was pounded upon.

No. 6. He had the typhoid fever and the convulsions when young; he invented unreasonable stories for the sole purpose of making others believe them. He simulated diseases, and even pretended he tried to commit suicide. He stole from his employer, in small sums, so that it was some time before he was discovered; he stole from his parents; one day he took a watch which he sold, spending the money stupidly. His conduct was very bad at school.

No. 7. She was a girl of fifteen; she would not stay at home; she would go out to the theatre, to the concert; her dream was to hear Carmen, she was very coquettish and proud of her person, she desired to learn music. She was placed in a store and did well. It was only her home she did not like, and especially on Sunday.

No. 8. She was a vagabond; she stole by calculation, and because that brought her money. "I prefer," said she, "to gain four dollars a day instead of one." She considered this all right. Nothing seemed to her more natural than to have lovers, and she could not comprehend why this should be forbidden. She was the despair of her family, who were honest working people, whose other children conducted themselves rightly.

On Corporal Punishment in Schools.

BY H. LEATHER.

Since Solomon uttered his famous dictum on rod-usage, philosophers innumerable have attempted to prove or disprove the wisdom of his conclusion.

The Spartans, with their whole-hearted belief in discipline, applied it early to the tender frames of their youth. As Bacon observed: "The lads of Sparta, of ancient time, were wont to be scourged upon the altar of Diana, without so much as quecking (flinching)."

On the contrary, Plato in his *Republic*—Spens's translation—declares his opinion as follows:—"Everything then relating to arithmetic and geometry, and

all that previous instruction which they should be taught before they learn the art of reasoning, ought to be set before them whilst they are children, and that method of teaching observed which shall make them learn without compulsion.... A free spirit ought to learn no piece of learning with slavery; for the toils of the body, when undergone through compulsion, render the body nothing worse; but no piece of compelled learning is lasting in the soul. Do not then, excellent friend, compel boys in their learning; but train them up amusing themselves, that you may be better able to discern to what every one's genius naturally tends."

A rudely contrary view is expressed by Dr. Johnson in reply to an inquiry as to how he gained such an excellent knowledge of Latin: "My master whipt me very well. Without that, sir, I should have done nothing."

It will be remembered that the said master, whilst in the act of flogging his pupils unmercifully, used to exclaim: "And this I do to save you from the gallows."

In expressing his strong approbation of enforcing instruction by means of the rod, Johnson further said: "I would rather have the rod to be the general terror to all, to make them learn, than tell a child, if you do thus or thus you will be more esteemed than your brothers or sisters. The rod produces an effect which terminates in itself. A child is afraid of being whipped, and gets his task, and there's an end on't; whereas, by exciting emulation and comparisons of superiority, you lay the foundation of lasting mischief; you make brothers and sisters hate each other."

On another occasion the quondam schoolmaster said: "There is now less flogging in our great schools than formerly, but then less is learned there; so that what the boys get at one end they lose at the other."

When after the revival of learning, the splendid schools of the Jesuits were founded, the middle course was taken. "Punishments were to be as light as possible, and the master was to shut his eyes to offences whenever he thought he might do so with safety. Grave offences were to be visited with corporal punishment, performed by a 'corrector' who was not a member of the Order. Where this chastisement did not have a good effect, the pupil was to be expelled" (Quick's *Educational Reformers*).

That such a rule should have been necessary in view of the fact that every lesson began with prayer or the sign of the Cross, that the pupils heard Mass every morning, and that they were urged to frequent confession and reception of the Holy Communion, is significant of the high value these world-renowned teachers set on discipline.

Ratke, the first great German educationist, who appeared during the century following the establishment of the Jesuit schools, with an ambitious scheme of teaching languages to old and young without difficulty, and of securing uniformity of Speech, Government, and Religion, attempted to apply his theories

in a school of five hundred children under the following ideal conditions of instruction drawn up by himself. "The young should not be beaten to make them learn or for not having learnt. It is compulsion and stripes that set young people against studying. Boys are often beaten for not having learnt, but they would have learnt had they been well taught. The human understanding is so formed that it has pleasure in receiving what it should retain, and this pleasure you destroy by your harshness. Where the master is skilful and judicious, the boys will take to him and to their lessons. Folly lurks indeed in the heart of the child and must be driven out with the rod; but not by the teacher."

The results of the experiment were disastrous—to Ratke, who was cast into prison for alleged imposture. Comenius, the philosopher-schoolmaster and disciple of Bacon, held that pupils should be punished for moral offences only, agreeing with Ratke that if children were backward in receiving instruction, the fault lay with the teacher.

Pestalozzi had decided views on corporal punishment: "The Pedagogical principle which says that we must win the hearts and minds of our children by words alone without having recourse to corporal punishment is certainly good; but with children of such widely different ages as mine, children for the most part of beggars, and all full of deeply rooted faults, a certain amount of corporal punishment was inevitable . . . punishments inflicted by parents rarely make a bad impression. But it is quite different with school-masters and teachers who are not with their children night and day, and have none of those relations with them which result from the life in common."

Coming to the greatest modern English schoolmaster, Dr. Arnold of Rugby, few having read *Tom Brown's Schooldays* can fail to appreciate the commanding love which the master inspired in his boys, though his severity when dealing with wrongdoers was undoubted. And, in fine, may it not be laid down as a natural law that continuous offences against the moral code—assuming that the perpetrator be of normal intellectual capacity—must be visited by some degree of physical chastisement if recurrence of the offence is to be prevented? The pain element for young children is one of the most important natural educational factors—the act of walking, differentiation between pleasure and discomfort, and nearly all the early experiences of childhood are acquired unconsciously by means of numerous impressions of pain which incorrect methods of acquirement result in.

A child deficient in the moral sense is usually quite unaffected by any reasoned discourse as to the enormity of his offence; but the association of physical discomfort immediately consequent upon the committal of the act would seem an effective and natural method of correcting moral aberration.

The possibility of abolishing corporal punishment altogether from our schools appears to depend upon the fulfilment of five main conditions (1) Improvement in the moral and physical environment of the mass of the people; (2) diminution

in the number of pupils taught in school classes ; (3) the more careful selection of teachers with a wider and more systematic direction of their training ; (4) greater freedom for the teacher from official and other external interference with his work ; (5) the cultivation of closer associations between parent, teachers and pupils.

Which all seems to imply that the *pisgah* of the ardent educationist is still far to seek.—*School.*

COMMERCE AND EDUCATION.

IN INDIA.

Looked at from the political, social or commercial standpoint, our policy of education in this country can hardly be voted a success, says the *Pioneer's* commercial correspondent in Calcutta, even by the most ardent enthusiasts, and those most intimately connected with the process have no cause for pride or satisfaction when they contemplate the results. The question is just now a burning one in India, and likely to become more so in the immediate future, and in England it is attracting a good deal of attention. Last Mail brings out an article in the *Nineteenth Century* by the Bishop of Madras, who says with outspoken bluntness "The advance of higher education has perceptively increased the friction and antagonism between Europeans and Indians," his period of review being the past twenty five years, during which he has personally known India and has had great opportunities of observing from the outside. Then, again, we have Bishop Johnson, whose experience goes further back, saying that we have educated the people of India, and education has had the effect of making some people discontented with their station in life, instead of being satisfied to put that education to a practical use. The opinion of these two authorities is valuable, inasmuch as they are more or less outside the pale of commerce and politics, and regard the result of education from the Christian standpoint, as affording the greatest all round good to the greatest number, and gauged in this way they find it wanting in all that makes for practical benefit. In a large measure, however, the above remarks refer to the education of the classes, whereas it is the education of the masses, which is now to the fore, and as in this commerce is most nearly affected, I have taken up the subject.

The two industries immediately interested just now are the tea industry and the manufacturing industries, as represented by the mills, and other large concerns which employ a large body of labour that is more or less resident in the compounds, and is composed in a great measure of children and young persons. Taking the children of the lower classes in this country as a whole I suppose there is very little education afforded to them of any description. The best work I know of is that done by various Mission Schools, and that is chiefly technical, the idea being to raise the boy out of the ordinary rut of menial or coolie labour, and fit him

with a trade which will enable him to earn a living wherever his lot may be cast. The schools round Calcutta chiefly affect carpentering and its kindred branches, while the C. M. S. in the Nuddea District have a flourishing school, whence the E. B. S. R. and many of the large engineering firms in Calcutta are only too pleased to draw recruits for their service, and I understand they almost invariably turn out well. In view of the almost universal miscarriage of education amongst the classes, it is not to be wondered at that the large employers of labour view with some dismay the suggestions for education amongst the children of mill hands and garden coolies. Not for a minute do they grudge them the education, but with the object lesson of the classes before them they fear a similar result with the masses, which will make them all discontented with their lot, and add to the already heavy labour troubles without doing the coolie any good, or assisting commerce in any other or higher branch. The clerical ranks of commercial life are fully and more than fully manned, as are also the various branches of Government Service ; and education whose ultimate result only meant additions to the ranks of seekers after employment in these departments, would be worse than useless, for it would add to the number of unemployed and discontented folk, and seriously handicap the already under-manned industries. Cram, and the parrot-like acquisition of knowledge is the curse of the present educational system. This may be, and indeed seems to be, the inevitable outcome of the natural genius or bent of the Indian character, but as Bishop Johnson puts it, it prevents the acquired learning resulting in any practical use, or still worse it tends to produce friction and discontent that a degree or any other outward and visible sign of a finished education does not lead to immediate and ample emoluments.

THE BEST METHOD.

The extension of this system of cram into the education of the masses will be fatal to any prospects which may exist of the industrial development of this country, or even to the continuance of industries on their present scale, for the labour force cannot stand any curtailment. The education of the masses should be aimed entirely at developing self-respect and self-resource, and having mastered the mere rudiments of book learning, technical work of some kind should then come in. For the children nothing better could be devised than the kindergarten system, which is now receiving very close attention at the hands of the Bengal Government, as far as European schools go, and it may well be extended to all Indian schools. We are all familiar with the bright and intelligent *chokra*, who as he approaches manhood becomes more and more addle-pated and unintelligent, and quite unsuited for anything but the merest routine work. Catch the children young, for it is the only chance, but educate them on lines which will train their faculties, and make them look on labour in its right light, but do not cram them with mere book learning. The ordinary mill hand is quite as irresponsive as, or even more so than, the machine he tends. Education in England has been attended with like difficulties, the result there being largely due to over-supply of the clerical ranks in the large cities, and the learned professions, while the soil has been

deserted. In this country, so far there is ample population left for the soil, in fact it would be a good thing if more of them could be attracted towards industrial labour, but if there is to be any material advance in industrial development it must have its foundation in the aroused intelligence of what may be called the working classes. The present generation is, I fear, too far gone and too firmly set in the old traditional moulds to do much, but there is hope from the children and youths of to-day if carefully educated.

THE CLASSES AND INDUSTRY.

There is no reason whatever why the classes, as distinct from the masses, should not cut themselves off from their traditions and go in heavily for industrial training. I believe I have remarked before on the entire absence of Indians from the higher walks of factory life, even after all these years of their existence. One of the most extreme native papers complained lately that India's industries had been destroyed in the unequal struggle for existence with those of England and other countries, and hence her poverty—two assertions which are open to question. Further that all her men have been driven to agriculture as the only source of subsistence left open, and the remedy pointed out is the re-creation of her industries to draw off that surplus labour under whose overweight her agriculture groans. This is a strange conclusion to come to, unless the writer in the severity of his views considers English managed and capitalised industries as outside the scope of his remarks, for he must be aware of the shortness of labour for industrial works all over the country, and how to remedy it, is one of the burning topics of the day. It certainly behoves the writer, and all who think with him, to do all they can to relieve the over-burdened soil, and transfer the labour where it will be well paid and cared for, and be of considerable benefit to the country. The labour leaders, be they self-constituted or otherwise, might do a lot in this direction, far more indeed than the Government, and Europeans will certainly welcome any enterprises engineered and manned by Indians. At the moment there is not a single jute mill on the river extent in the hands of Europeans. Some years ago a Bombay firm ran one, but after a short time it passed into European hands, and only lately a small Indian-owned mill did the same. After a few months of European management its shares stand at Rs. 93, having started at Rs. 48. Three new jute mills will shortly be launched, all under European sponsorship. There is no valid reason why these things should be, and, if words were more readily put into deeds, there would soon be a change. In connection with labour and its troubles, I am glad to see a disclaimer from the Honorary Secretary of the Indian Labour Union that they had any connection with the recent strike at Budge-Budge, except as peace-makers, after the strike had got under weigh. As I recently said, a go-between, who is trusted equally both by labour and capital, would be of untold value in settling the many disputes which arise from time to time, and, if the Labour Union lay themselves out for this work in a neutral spirit they will not exist in vain.—*The Madras Mail.*

Direct Moral Institution.

SOME CONSIDERATIONS FOR PROF. FINDLAY
AND MR. J. L. PATON.

By Dr. F. H. HAYWARD.

ON several recent occasions Prof. Findlay and Mr. J. L. Paton have criticized the propaganda of the Moral Instruction League. Twice, in meetings where they were present, I have attempted (unsuccessfully) to obtain answers from them to the following question:—"Does not much moral evil spring from ignorance, or from mental defects akin to ignorance, such as thoughtlessness, prejudice, and delusion?" Neither has any answer yet been vouchsafed when this and other questions have been inserted in the correspondence columns of an educational journal.

I have watched this subject for several years. I have heard repeated warnings against "moralizing"; I have heard superior persons pass judgment upon the books of Mr. F. J. Gould. I have said to myself: "There must be some psychological and scientific principle at the back of this objection to direct moral instruction." But the moment one closes with the subject one discovers in it a peculiar elusiveness. The readers of this journal can put the matter to the test. Let them ask the above question whenever a critic of direct moral instruction is expatiating on the subject, and they will probably arrive at the conviction that has gradually forced itself on me, namely, that most of these critics are immeshed in coils of prejudice, and have no psychology, no philosophy, even no adequate experience (in many cases), capable of justifying their standpoint. Yet I am unwilling to rest satisfied in a conclusion so disheartening. If any educationists in England should be capable of clearing up my difficulties, they are the two gentlemen whose names are mentioned at the head of this paper. I ask them again, and earnestly, to do so. No member of the Moral Instruction League would belong to it to-morrow if Prof. Findlay and Mr. Paton could clearly indicate that direct moral instruction was unscientific, impossible, or undesirable. There is no vested interest in moral instruction.

I have reason to think that the use of the word "nontheological" in the propaganda of the League is partly at the root of Mr. Paton's objection. I agree with him that the word seems somewhat gratuitous: perhaps, if "civic" were added to "moral," the intended meaning could be conveyed less offensively than at present. I ask Mr. Paton to set aside that objection, and to consider the question on its merits.

The following paragraphs, summarizing the situation as it presents itself to me, were put together for a different purpose from the present. I have adopted a categorical and dogmatic method, not because I fell categorical and dogmatic, but in order to bring the whole subject to a definite issue. I drop the question form; though, by the way, I am certain that, if a series of questions were asked of eminent medical men, they would vouchsafe answers to the inquirer.

The following, then, is a categorical statement of what seem to me the roots of the present-day prejudice against direct moral instruction:—(1) A mistaken identification of direct moral instruction with certain dull and unpedagogical methods dating from the eighteenth century—a time before modern educational science had arisen. Direct moral instruction in the present-day sense is the reverse of dull and the reverse of unpedagogical. (2) A second cause for the prejudice against direct moral instruction is a wide-spread and almost morbid fear of sanctioning anything suggestive of "priggishness." (3) A third cause is a lack of clear views upon the relative functions of instruction and training. The confusion between these two agencies is inveterate and almost universal. A school may give first-rate training, and yet, as a distinguished writer on the great public schools asserts is often the case, the boys may remain "morally colour-blind," owing to the distrust of actual instruction that prevails in educational circles. (4) A fourth objection is pseudo-scientific, and based on certain broad, but somewhat misinterpreted, results of "child study." The view is that the conscious moral life only begins at sixteen years of age—a view which seems contrary to every one's experience of children and remembrance of himself, and represents rather an important tendency than what actually happens in modern conditions.

(1) With regard to the first objection, based on the supposition that direct moral instruction is dull, prosy, eighteenth century, and uneducational, I would point out that no teacher known to me who has ever voluntarily taken up the subject has found it "dull" to his pupils. That the pupils "like it" is the invariable report, and the reason obviously is that the simpler problems of conduct are constantly facing children, and come home to their "business and bosoms": thus, within certain limits, it may be said that such problems appeal *specially* to children, the subject matter being unusually familiar. The statement needs safeguarding, no doubt, as there are dangers in premature treatment of moral questions; but a certain prematurity simply *cannot* be avoided amid modern conditions: the problems are before the children's eyes. Moreover the passage from "concrete to abstract" is quite as easy in this department of work as in any other. Again, direct moral instruction, as conceived by its advocates, makes use of copious historical and literary examples: in a sense it is only a form of the teaching of history and literature. As such it is as pedagogical and scientific as any subject in the curriculum. So far as I can observe, the method of moral instruction as conceived by Mr. F. J. Gould is exactly similar to the method adopted when the parable of the Good Samaritan was first told.

(2) The second cause mentioned for the prejudice against direct moral instruction may be summed up in the words of Mr. A. C. Benson: "Nowadays our horror of priggishness, and even of seriousness, has grown out of all proportion; the command not to be a prig has almost taken its place in the Decalogue." From the same source spring various interesting phenomena of modern morals—the attempts of various people to make themselves out worse than they are, in

order to prove that there is no nonsense in them; the formation of anti-Puritan leagues, &c. Mr. Pinero, in his latest play, demonstrates the ingenuousness of his heroine by equipping her with a cigarette case. This morbid horror of priggishness is doing much to prevent schools from exerting their legitimate influence on moral conduct.

(3) The third cause above specified is the confusion between instruction and training. The latter aims at creating good habits, the former at giving ideals, or moral insight; in other words, at clearing up moral ignorance, delusion, thoughtlessness, or prejudice. The confusion between instruction and training is the result partly of our lack of an educational science, and partly of such educational science as we possess being dominated by one-sided Froebelian doctrines which underestimate the power and value of ideas as springs of conduct. Closely akin to the exaltation of training at the expense of instruction is the depreciation of direct methods in favour of indirect. It may be pointed out that advocates of direct methods are fully in favour of indirect ones also, and regard them as perhaps ultimately the more valuable; but they are convinced that direct methods have a place, at any rate during the present chaotic and unscientific state of the curriculum, in which humanistic subjects like history and literature do not get their fair share of attention.

(4) An attempt has certainly been made by Prof. Findlay to find a scientific basis for opposition to moral instruction. His views are based on a too academic treatment of child life. He warns against prematurely opening up moral questions, but he ignores the fact that years before the age of sixteen (at which he sanctions moral instruction) children, especially in poor districts, are face to face with problems of gambling, intemperance, thriftlessness, and the like. Moreover, Prof. Findlay's views—though, no doubt, based on certain broadly true aspects of child life—attribute to the child a lack of reflectiveness that is contrary to experience. Long before the age of sixteen children have begun to think about conduct, and even general principles of a certain kind are able to be grasped. No doubt child study is right in urging that altruistic sentiments receive their richest development after adolescence—the time when the call of the race is heard. But there is a sphere for reason and reflection long before then; and, indeed, the concrete examples of conduct that are everywhere around children stimulate nascent reflection, whether we approve such stimulus or not. Prof. Findlay's view may represent a truly scientific pedagogy as applied to middle-class schools in Utopia; but, as applied to modern schools, especially in poor districts, it seems to me doctrinaire, contrary to experience, and morally mischievous.

I would now pass on to give a few reasons for moral instruction.

(1) The necessity for moral instruction will be obvious to any one who notices the thousand and one acts of impropriety or inconsiderateness performed by his fellow-men, and then asks himself: "Do not most of these acts spring from ignorance or thoughtlessness or prejudice or delusion?" In other words:

"Is there no element of insight (or moral perception) in good conduct?" The fact that some evil acts spring from weakness of will does not overthrow the other fact that *many* spring from weakness of a different kind. As already stated, I have on several occasions asked the above question of eminent educationists, some of them opponents of direct moral instruction, and I have never received a negative answer: still there is a widespread prejudice against what is called "mere instruction," the objectors failing to realize that, if many evils spring from ignorance, thoughtlessness, prejudice, or delusion, such evils *can* be removed by instruction, even if other evils remained. Archdeacon Wilson said years ago that in schools "we have too much underestimated the virtue of knowledge," and the recent anonymous writer "Kappa" urges brilliantly: "Let youth but *know*." As this depreciation of knowledge prevails in many high educational circles, there is nothing surprising in its prevailing when the problem of moral instruction arises. The underlying fallacy is that the so-called "faculty" of the will is separate from the "faculty" of knowledge or insight and cannot be influenced by it. That consciousness or conscious reflection can work downwards into the developing organism seems largely ignored not only by the conventional depreciators of knowledge, but by some academic expositors of the results of child study. But take some ridiculously simple instances of conduct—such as the careless throwing about of orange peel or the objectionable habit of promiscuous spitting that prevails among many working men. If all the scientific students of education in existence said that instruction was useless in such cases, they would be wrong. Instruction *does* help to correct moral thoughtlessness. There is more science in the maxim:

Evil is wrought by want of thought

As well as want of heart

than in most of the utterances we hear on this subject.

(2) That there is a *prima facie* case for direct moral instruction seems indicated by various independent attempts to introduce moral instruction on single subjects. I have noted the following attempts during the last few years:—kindness to animals, dangers of gambling (instruction on this subject is recommended in Mr. Rowntree's book), dangers of smoking, value of temperance (many British colonies have introduced lessons on this, often in connexion with hygiene), courtesy, thrift (advocated by the Charity Organization Society), civics, and, lastly, patriotism. I would also refer, in passing, to the fact that many educationists, like the present Head Master of Eton, have traced some sexual evils to ignorance; and here, again, are proposals of instruction. If these attempts have severally any justification, it is hard to see how the definite recognition of direct moral instruction can be regarded as a retrograde step.

(3) Again, we are not going actually to exclude direct moral instruction by branding it as impossible or unscientific. It is in the schools already, though often in unsystematic form. The Churches are not likely to agree with the "sixteen-year-old" doctrine of Prof. Findlay, even if that doctrine were better founded than it appears to be. Hence there is a very practical reason for making

efforts in the direction of a proper grading and systematizing of the subject. At the same time there are reasons for leaving the subject to those members of the school staff who have a special interest in it.

Let me add, in conclusion, that I have learnt more from Professor Findlay's admirable writings on education than from any other English writer, with one exception. That he is wrong in this case I am almost certain. That he has not yet fairly and squarely faced the problem of the poorer type of school I am beginning to suspect. That he will be on our side—the winning side—as soon as he faces that problem (and has actually read the "objects" of the Moral Instruction League) I am confident.—*The Journal of Education*.

State Care for the Nation's Weaklings.

BY E. F. DENTON LEECH.

ONE of the most knotty problems, and one that is always recurring to every Educational Authority, is how to deal with such children as, owing to certain physical and mental defects, are not suitable for ordinary public elementary schools; they may be classed under three heads: Invalids, Cripples, and Mental Detectives.

The first two can be combined in one school, and comprise such children as are phthisical, rickety, or merely generally delicate, unable to face the "rough and tumble" of more robust schoolfellows. To these may be added a great many cripples, hunchbacks, dwarfs, also those suffering from hip disease or spinal complaints, who could not sit on regulation forms for the ordinary length of school hours. Many of these are backward in intelligence on account of their weak health or from over sensitiveness as to their physical deformity. Besides, there are a large number really deficient in brain-power, though not actually imbeciles.

In rural districts and the smaller provincial towns all these classes of children prove a great difficulty to the school-attendance officer, especially such as have no specific disease. They are a still greater difficulty to teachers who have them in their classes, and to the School Attendance Committee, too, because they are aware that such children rarely derive much benefit from lessons in the ordinary classes. As regards those who are even slightly mentally deficient, the usual curriculum can do little good; their long years of attendance are very expensive to the ratepayers, while yielding no advantage to the community as a whole, and very little to the individual permanently. Hence in large towns there has come into existence a class of schools adapted to the particular needs of these little ones, known as "Special Schools," or "Invalid Schools," either of these titles being preferable to that of "Cripple Schools."

It frequently happens that the initiative for special classes comes from private effort; in some cases the first start is made almost unconsciously when a voluntary

worker undertakes to visit a few invalid children in their own homes and teach them. The success of the small effort often brings to knowledge a great many more children, and efforts are made to stir the educational authority to take over the experiment and develop it beyond the possibilities of private finances.

The following is an attempt to describe what is being done for these children at different centres. Probably there is great variation in method and detail in many parts of the United Kingdom, so it should be understood that the descriptions apply only to what has come under my personal cognisance.

The invalid school serves a much larger area than the usual elementary school, as the little folk live in houses scattered at great distances, and as many are unable to walk at all the necessity arises for a conveyance by ambulance omnibus; this, with its necessary horse and driver, forms a heavy initial outlay to start with, but it is absolutely indispensable. The school buildings always stand apart from others, and every thing is done to make the interior a place of brightness and happiness, to cultivate as far as possible a love of beauty, sympathy with others and forgetfulness of self. For many of these small mites are crammed all of self-importance, due to the many hospitals they have attended, or operations they have undergone; their conversation bearing an unconscious similarity to that of far older people in richer circumstances, who frequent "Spas," "Cures," "Baths," &c., and bore their friends by relating their symptoms and discoursing on their internal anatomy.

On entering the class-rooms of a special school one is at once conscious of attempts to make them bright; the walls are decorated with pictures (often large advertisement posters), and there is also displayed some of the best work executed by the scholars themselves, such as coloured drawings, cardboard models, &c. For toys they are chiefly indebted to friends, so that some schools are better provided than others; rocking-horses, dolls' houses, grocer shops, balls, skipping ropes, and smaller toys are to be found in many.

The furnishing of such a school may also include such gifts as a self-propelling chair—or a coach in case of emergency or illness—for it must be remembered these poor incapacitated children cannot go home when they like, but must wait for the ambulance in the afternoon. There should also be sufficient special Chairs with cane backs and seats, and foot-rests for children suffering from spinal complaints.

In consideration of the weaker ones the usual routine for lesson hours in these schools is less, and the time given to individual subjects is shorter, than for robust scholars. The day begins when the nurse starts in the ambulance at 8.30 A. M. and makes several journeys so that the little folk are gathered in by 10 A. M., when the roll is called. Up to that hour, prayers have been held and work has been somewhat desultory, but now serious lessons begin, and at 10.30 comes a break, when all pass into the dining-room to receive a piece of bread and a cup of milk. As they pass out, after the manner of the immortal Squeers Academy, each

is given for their health's sake a spoonful of cod-liver oil! nor, wonderful to relate, do the children dislike it. At 12.30 dinner is served, and this necessarily takes place at school. It consists of two courses—a thoroughly carefully thought out menu of well-selected food varied from day to day.

Payment of 1½d. a day is expected from parents, and this covers the cost of food, though not the cost of cooking or service—few of the mothers fail to send it regularly, with a weekly 1½d. for the cod-liver oil administered twice daily. It is never the very poor who fall behind in their payments, but the careless, who hope the fact will be overlooked. With a little firmness at the first, in refusing to overlook non-payment, this trouble is soon surmounted. After dinner those able to play are marshalled from the dining-room to the play-ground or the hall, where organised games take place. It is no easy matter to regulate fifty or sixty youngsters all struggling to have their own way. They have very little notion of play—still less of playing together—and are young barbarians in the way of destructiveness. Unfortunately, there are always some who cannot play—who perhaps are obliged to lie down; these are gathered into a room apart where some specially gifted lady tells them stories, invents games, and tries to make them forget the romps going on in the next room.

Meantime the nurse is busy in her sanctum, binding, bandaging, dressing sores, giving whatever treatment has been ordered. She is a very necessary and important member of the staff, and ought to be a woman of much tact and experience as well as a disciplinarian. She is responsible for the surgical treatment of the children, for the safe conveyance of the little invalids to and from school, and has many opportunities of instructing mothers in simple domestic medicine and hygiene.

When lessons are resumed in the afternoon, manual work only is taught such as brushwork, modelling, basketwork, rug-making, and (perhaps for a few older girls) lace-making; this last is specially desirable, seeing that it is a means of earning a livelihood for the whole of a girl's lifetime. Some of this practical work can be taught by volunteer helpers.

Occasionally some of the children have lost the use of their legs owing to parental neglect in infancy, and have to be taught to walk. Many are very small, frequently having almost the appearance of babyhood when the real age is six or eight years. However, with the change and fresh interest in work and play, spending part of each day in well-ventilated rooms and nourished by suitable food, they never fail to improve in general health, so that they soon begin to grow in height and increase in weight.

But a far more difficult problem is presented by children of low mental development—whose parents call them "dull" or "not just bright". The deficiency varies widely, in some cases scarce recognisable as lying beyond the bounds of mere stupidity; on the other hand scarce distinguishable from imbecility—between these two extremes lie bewildering gradations. The Code says that on

no account should imbeciles be admitted, but it does not specify any symptoms from which to judge, and leaves the line of demarcation to be drawn by the unfortunate teacher.

Now it is only daily experience that can show the defect, for each brain is differently affected, and with very curious results. A child, fairly good in most subjects, may fail completely in arithmetic, forgetting time after time the simplest methods, the elementary sum, or even the position of figures; others can do long-division sums who are incapable of putting three letters together to form a word. Occasionally it occurs that an older pupil will read fairly fluently while unable to grasp the meaning of words he or she is reading; another can write a decent hand though he or she never conquers the fundamental principles of reading.

Those who fidget from physical inability to control their muscles, or by involuntary contortion of the face set all the rest of the class laughing, are easily detected; while the absolutely maliciously mischievous have also to be reckoned with. When a number of such children are found to be among the scholars in any school, steps are taken for a properly trained teacher to form a special class which is attached to one of the public or provided schools of the neighbourhood; drafts from other schools fill up the numbers, and in a short time a second room is set apart to divide the small from the older children.

It is only too sadly evident how many children in ordinary schools are in fact "deficient", and are greatly benefited when they are relieved from the strain of "standard" work and receive the individual attention possible, with smaller numbers. Twenty is the limit in these classes. Some children indeed, in the course of a few years, improve sufficiently to enter the lower standards and take their place once more among the more fortunate ones; sometimes the "special" class receives recruits of older boys or girls, so that their school age may be prolonged to eighteen, and they may devote their last months to handwork that can be carried on at home. The teachers would appear to be drawn from specially intelligent and attractive women; I do not know whether men ever teach these classes, but I have never seen them. Needlework is such a valuable mode of instruction that much time is devoted to it; plain sewing, knitting, silk embroidery on canvas, dressing of dolls for girls, macrama lace, canvas-work and rug-making for boys.

The work accomplished by two such classes during the year was on view lately; much of it was truly excellent, quite up to the standard attained by children with all their faculties; one child, who had the use of one hand only, had accomplished a muslin pinafore—a remarkable performance. Among the work were some dressed dolls, each with its proper complement of garments, the entire work of a girl of whom at one time they had despaired of ever teaching anything.

It is all the more wonderful because many of the boys and girls can scarcely enunciate a word; only after months of laborious work on the part of the teacher

can they speak at all, and even then a stranger could not understand them. They are also very slow in understanding what is said to them, or knowing the names of many common things, but the manual dexterity acquired is of a high standard. Sometimes, on the contrary, one comes across bright faces quite belying their presence in such company; these may be epileptics or sufferers from aphasia, *i.e.*, total loss of speech and memory—generally preceded by a fit. This renders them unequal to any mental strain, but they look quite normal. Children suffering from lack of brain-power have little command over their limbs and often cannot walk—whence a conveyance is required for their use—and as they stay at school over the usual home dinner hour it is necessary to provide dinner. For these reasons it is sometimes found advisable to combine under one roof a cripple school with a class for mentally defectives, so that both may take advantage of these subsidiary arrangements. But wherever this is the case the two classes of scholars are rigorously separated, each having their own staff of teachers, though there may be one head-mistress. Many of the children cannot feed themselves, and the lessons in cleanliness and decency inculcated during the dinner hour cannot fail of good effect on them.

In large towns the work of the school attendance officer is greatly increased by the necessity for occasional visits to the homes of these unfortunate children: the environment too frequently militates against the benefit derived during school hours. Often his visits have to be supplemented by the Inspectors of the National Society for Prevention of Cruelty to Children. The clause in the prospective Scotch Education Bill, granting the school powers to prosecute neglectful parents, should be of incalculable value, as inspectors are not easy to move in the matter, whereas the school officer has the family under constant observation.

Before obtaining admittance into these schools the little ones have to pass a doctor's inspection. There are, of course, definite medical signs, but a simple test is to tell the child to stretch out the arms straight in front of him: this can never be accomplished by a mental defective—the fingers will curl up leaving a hollow at the wrist, or the palm will turn outwards, the fingers moving all the time.

In one of the schools I visited there was a new feature in the form of a bath, consisting of two small cubicles with sunk floors, the sides and floor being lined with white glazed tiles. The children stand up to receive all the benefit of a thorough sponging down. At first they object strongly, being frightened of the water, but after a first experience they clamour for it. A woman is engaged for certain mornings in the week to bathe a number in turn. This is not a question of luxury or even cleanliness, but has proved immensely useful in stimulating the vitality, and has had a most beneficial effect on the general health. Such schools as these are only possible in our larger towns: in the smaller ones the rates could not bear the burden, and fortunately there is not the same necessity.

After having spent large sums on their education, with truly British want of logical foresight, we turn these poor weak-minded boys and girls loose on the world at the age of sixteen or eighteen—leaving them open to the associations that are bound to reassert themselves. Small wonder that they turn up again in a few years in Police Courts and Rescue Homes having cost the country heavily in the process; we place some in institutions, probably at an annual cost of £ 50 a head, for a lunatic pauper is known to cost four times that of an ordinary outdoor one. But we ought to have realised from the outset that such abandoned derelicts can never really be responsible for their actions any more than they can become self-supporting. We ought to realise that a Parental Government must be prepared to continue the care of them through out their lives.

Nor would such a system be as costly as our present lack of system, which insists on their first becoming criminals, before the nation will take care of them.

Instead of costly and unsuitable institutions, far too grand to be comfortable for the poor things, small country Homes are being established where the girls, while being taught housework, laundry-work, gardening, poultry-farming, &c., can live in small groups, thus obtaining the simple home life natural to their class. The boys similarly housed can carry on agriculture, fruitfarming, raising of stock and learning trades. Thus having natural interests and healthy surroundings, they would lead happier lives than they could hope for in the world at large, and they would no longer be a menace to the life of the nation. About £20 annually would be sufficient for each inmate, and the houses would be partially self-supporting.

I had the privilege of going over such a Home for girls opened a short time ago. It was an experiment, which, if successful, its promoters hope to extend to boys and perhaps to adults. Every care had been taken to avoid the appearance of an "institution," so an ordinary dwelling-house standing in its own grounds had been secured, and only absolutely necessary alterations carried out, chiefly in the way of extra bathrooms, offices and laundry accommodation. Otherwise the house is just an ordinary spacious one. In the store-room were garments of every description, but in no sense were they anything like a uniform. To this house had been sent girls of fifteen and eighteen years, whose real homes in the city were bad, immoral, or likely to be demoralising.

Any one who knows the sufferings of the poor feeble-minded beings in the big world with which they are so unfitted to grapple, must be only too thankful to think of them cared for, fed, and protected from the results of their own irresponsibility.

No one knows better than the respectable poor themselves the extreme difficulty of protecting these incapables from the dire results of their own weakness and the consequent moral degradation. Not only for these reasons are such permanent measures desirable, but for their own pleasures and interest in life, resulting from the possibilities of occupation placed within their reach, as well as for the more important consideration of the benefit to the nation at large.

UNIVERSITY OF MADRAS.
TEXT BOOKS FOR 1908, 1909, 1910.
MATRICULATION EXAMINATION, 1908.

BRANCH II. SECOND LANGUAGE.

Sanskrit.

Selections to be published by the University.

Uriya.

Raghuvamsa.—The whole.
Krishnakumari.—The whole.

Marathi.

Navanita. By Parashuram Pant Godbole. (Edition of 1895). Selections from Vaman and Ragunath Pandit. (Government Book Depot, Bombay).
Rasseals. (Translated by Krishna Sastri Chiplunkar). (Chitrashala Press, Poona).

Hindustani.

Mukhtaru'l-Ashaar, Part II. First half. (S. P. C. K. Depot, Madras.)
Muntakhabat-i-Urdu. No. 6, omitting the poetry. "

Persian.

Laali-i-Manzumah. (S. P. C. K. Depot, Madras).
Muntakhabat-i-Farsi No. 3. (The Intikhab-i-Gulistan and Intikhab-i-Iyar-i-Danish).
Vizier-i-Lankaram. (S.P.C.K. Depot, Madras). Only in (S.P.C.K. Depot, Madras).

Arabic.

Nukhabu'l-Milah. (Juzu'l-Avval, Quismu'l-Avval). (S.P.C.K. Depot, Madras).

Hebrew.

Exodus—Chapters I to XX.
Psalms—XLII to LXXIII.

Greek.

Xenophon—Cyropædia, Books I and II, Chapters I and II.

Latin.

Casar—De-Bello Gallico, VI, 1-20.
Ovid—Metamorphoses, II, 1-339.

Tamil, Telugu, Kanarese and Malayalam.

Selections to be published by the University.

French.

Edmund About—Les Jumeaux de l'Hotel Corneille (Rivingtons).

German.

Lessing—Minna Von Barnhelm.
Schiller—Geschichte des Dreissigjahriger Krieges, Part II.

BRANCH IV. PHYSICS AND CHEMISTRY.

(a) Elements of Physics—Balfour Stewart. A Primer of Physics.
(b) Elements of Chemistry—Roscoe. Primer of Chemistry.

FIRST EXAMINATION IN ARTS.

BRANCHES I AND II. LANGUAGES.

English.

Shakespeare—Twelfth Night.

Milton—Paradise Lost, Book II.
 Tennyson—Gareth and Lynette.
 Jane Austen—Sense and Sensibility.
 A. G. Bradley—Captain John Smith (English Men of Action),

Sanskrit.

Achyuta-raya-abhyudaya. Cantos 1 to 3, Vani-vilas Press, Srirangam.
 Bhoja Champu—Kishkindha kanda.
 Kadambari Sangraha—by Krishmacharya, Uttara Bhaga Malavikagnimitra.

Uriya.

Meghaduta—The whole.
 Veni-samhara Nataka—The whole.
 Sati—The whole.

Marathi.

Ramadasa's Dasabodha—Dashakas 1-5. (Satkaryottejaka Mandali, Dhulia).
 Moropant's Mantra Bhagavata, Skandha 10th (Nirnaya Sagar Press, Bombay).
 Do Sanmani Mala. (Nirnaya Sagar Press, Bombay).
 Dattatraya Narayan Nabar—Jivitakartavya. (B. G. Dabholkar, Poona).
 Tara Natak—by V. M. Mahajani, M. A. (Akola, Berars).

Greek.

Herodotus I. 1-121.
 Sophocles—Antigone.

Latin.

Sallust—De Conjuratone Catilinae, Chapters 20 to end.
 Cicero—Pro Archia.
 Virgil—Aeneid I.

Hindustani.

Taubatu'n-Nazuh.
 Mukhtarul'Ashaar part III. (S.P.C.K. Depot).

Persian.

Dewan-i-Hafiz, to the end of Radif Dal.
 Anvari Suhayli—to the end of Chapter II including the introduction.
 Hikayat-i-Yusuf Shah—(S.P.C.K. Depot, Madras).

Arabic.

Nukhabu'l-Milah—(Juzu's Sani, Qismu'l-Avval). (S.P.C.K. Depot, Madras).

Hebrew.

Exodus.
 Isaiah, I—XXXIII.

Tamil.

Villiputturar Bharatam. Virataparvam. Niraimirchi Sargam.
 Chulamani—Sargams 1-4, edited by Damodaram Pillay.
 Naladiar—Chapters, 11-15.
 Tiruvarangattu Malai 1 to 50 stanzas.
 Life of Dr. Miller, Chapters, 4-6, by T. A. Rajaratnam Pillai.
 Buddha Charitram, edited by Mahamahopadhyaya Swaminatha Aiyar.
 Bhattar Vaibhavam—(Expurgated edition, pp. 1-40.), by V. M. Satakopa Ramana-
 nuja Chariyar.

Telugu.

Maha Bharatamu—Aranya Parvamu. (Canto 6 from Markandeya's narration of
 Ramayana to the end, and Canto 7 from the beginning to Ravana's death).

Nirankusopakhyanam. Canto 1, edited by Srija. R. V. Krishna Rao, B. A.¹
 Telugu Poets—Part II—Lives of Pingali Suranne, Ramaraja Bhushana and
 Tenali Ramakrishna by Rao Bahadur K. Viresalingam Pantulu.
 Narakasuravijaya Vyayogamu—by Kokkonda Venkataratnam Pantulu.
 Bacon's Essays—Essays 1, 2, 3, 7, 12, 13, 14, 15, 18 and 20 by S. Ananta Rau.²
 Bharata Saramu, I—71 pp.—by N. Kuppuswamiah, B. A.³

Kanarese.

Poetry; Srirama Pattabishekam: The whole. (Kavyamanjari series).
 —Chelvanarayana Satakam: the whole, by D. Alasingarachariyar.
 —Damayanti Swayamvaram, Aswasas 1 and, by Basavappa Sastri.
 Drama; Kanakalataparinaya Natakam, by Nanjanagudu Srikantha Sastri.
 Prose: Ratnavali kathe: the whole. (Kavya Lalanidhi series).

Malayalam.

Meghasandesam: Sargams V and VI, translated by Raja Raja Varma, M. A.
 Ramachandra Vilasam: the first three Sargas.
 Sri Mahabharatam: Krishnadutu, Chptrs, 1-3, translated by Kunhikuttan
 Thampuran.
 Nalacharitam. Kathakali: Second day's play, by Unnayi Wariyar.
 The Malayalam translation of "The Representative Indians" Part I; the first
 three lives edited by T. K. Krishna Menon B. A.,
 Essay on Kunchan Nambiyar: by P. K. Narayana Pillai B. A.

French.

Eugene Labiche: Le Baron de Fourchevif. (Rivington's New Junior French
 Plays).
 Cloude ly Brereton; Feuilletons choisis (Clarendon Press),
 Moliere: Les Femmes Savantes.
 Boileau: L'Art Poétique I, II,

German.

Goethe; Gotz von Berlichingen.
 Schiller: Maria Stuart.

B. A. DEGREE EXAMINATION, 1900.

English.

Chaucer: The Nonne Prestes Tale.
 Shakespeare: Macbeth.
 Milton: Lycidas.
 Coleridge: The Ancient Mariner.
 Keats: To a Nightingale, On a Grecian Urn, To Psyche, On Autumn.
 M. Arnold: Thyrsis. A Scholar Gypsy.
 Stevenson: The Master of Babanrae.
 Carlyle: The Hero as Poet.
 Lamb: Essays of Elia: The South-Sea House. Oxford in the Vacation.
 Christ's Hospital Five and Thirty Years Ago. The Two Races of men. The
 Old and the New Schoolmaster. The Old Benchers of the Inner temple.
 Grace before Meat. Dream children. Distant correspondent.

Sanskrit.

Laghu Kaumudi by Varadaraja (with the exception of the Tignanta, Kridanti
 and Taddhita portions).

¹To be had of the Editor at Polavaram.

²To be had of the Author at the Madras Christian College.

³To be had of the Author at Tirupati.

Chandraloka.
 Uttara Ramacharita.
 Tilaka Manjari by Dhanapala (Kavyamala series No. 85, pp. 1—60, omitting the portion from page 14, line 18 to end of page 16).
 Srimad Bhagavata : Dasmaskandha, Adhyayas 56 to 52, excepting Sloka as 43 to 49 in Adhyaya 54.

Uriya.

Alankara Sara : The whole.
 Parvati Kavya : Do.
 Prabhata ; Do.

Marathi.

Vaman's Namasudha (Nirnaya Sagar Press, Bombay).
 Vaman's Yatharthadipika. Chapters I—IV. (Nirnaya Sagar Press, Bombay).
 Vividhavishaya Sangraha, Part I, By G. G. Agarkar, M. A. (Sudharak Office, Poona).
 Alankara Prakasha, Ullasa I, Parts 1 and 2 and Ullasa II. (By L. G. Lele) (New Kitabkhana, Poona).
 Sadasiva Rau Bahu's Bakhara. Edited by K. N. Sane, B. A., Poona.

Hebrew.

Denteronomy.
 Micah.
 Ecclesiastes.

Hindustani.

Life of Sir Syed Ahmad by Hali, Vol. I.
 Ab-i-Hyat.

Persian.

Autobiography of Amir Abdu'r Rahman : Vol. I of the Persian translation, Hablu'l Matin Press, Calcutta.
 Sikandar Nama-i-barri.

Arabic.

Ilmu'l-Adab, Part I (the whole),
 Makametu'l-Badii (Beyrout edition).
 Saba Muallaqat : Poems 1, 2, 3 and 4.

Greek.

Homer : Iliad, I.
 Aeschylus : Prometheus Vincetus,
 Plato : Crito.

Latin.

Juvenetius : I.
 Horace : Are Poetica.
 Cicero : Tusculan Disputations, I.
 Tacitus : Annals, VI.

Tamil.

Lamba Ramayanam ; Kishkinda Kandam. Padalam 1—5.
 Puranic : Chapters 64—73.
 Andara Puranam. Indran Karandurai Padalam, Caviriningu Padalam and Indran Arichanai Padalam.
 hintamani : Govindayar Ilambagam, edited by Mahamahopadhyaya Swaminatha Aiyar.
 urananuru : 1—50 Agaval.
 attupattu : Chiruppanathuppadai ;

Do.
 Do.

Tamil Essays : Wealth and Prose, by T. Chelvakesavaraya Mudaliar, M. A.
 Avvayar Charitrm (revised), by Anavartavinayakam Pillai, M. A.

Telugu.

Bhismakhandamu. Canto 3. Edited by Padmanabha Sastrulu. *
 Bhojarajiyamu. Canto 2. Edited by Rao Bahadur Viresalingam Pantulu.
 Kavijanamanoharamu : by Karalapati Rangayya Garu. †
 Kalabhashini : by Sripada Krishnamurti Shastrulu. ‡
 Bhishma Vikramamu, by P. Srinivasa Charyulu, B.A. : B.L. §
 Telugu Philology (1—41 pp.) by Padi Venkataswami Garu. ||

Kanarese.

Poetry : Pampa Bharata Asvasas, 11 and 12 (Mysore Government Press edition).
 ——— Girijakalyana, Asvasas 6 and 7 (Kavyakalanidhi series).
 ——— Chandrabhasabhyudayam, Asvasas 1 and 2 (by Venkataraya Kavi).
 ——— Karnataka Chandraloka (the whole), by A. Lakshminarasimha Sastri.
 Drama : Nagananda Natakam, the whole (Granthamal series).
 Prose ; Ramasvamedha, Asvasas 1—8 both inclusive (Kavyamanjari series).

Malayalam.

Poetry : Bharatam—Sabha and Virata Parvams by Tunchat Ezuthachchan.
 ——— Kannassa Ramayanam—Balakandam : Stanzas 1—100
 ——— Uttararama Charitam, the first three Ankas, by Chathukutti Manna-
 diyar.
 ——— Ambarisha Charitam. Kathakali : The Pakrita portion to be omit-
 ted ; by Aswati Tirunal.
 ——— Annyapadesa Sataka (The Second half) Manipravala slokas only, by
 Kerala Varma Valiya Koil Tampuran.
 Prose : Sarada, the whole by O Chandu Menon.

French.

Montaigne : Principaux chapitres et extraits (Hachette, 2.50 fr.).
 Victor Hugo : Hernani.
 Lamartine : Premieres Meditations (Hachette).
 H. Taine : La Fontaine et ses Fables.

German.

Lessing—Nathan der Weise.
 Freiligrath—Aus dem Leben eines Taugenichts.
 Goethe—Faust, Part II.

BRANCH II.

- (i) (a) Knott's "Physics."
 Aldous' "Physics."
 (b) T. E. Thorpe, "Inorganic Chemistry" 2 vols.
 Dobbin and Walker, "Chemical Theory for Beginners."
 Newth's "Inorganic Chemistry."
 Newth's "Manual of Chemical Analysis."
 Jones' (F.) "Junior Course of Practical Chemistry."
- (ii) A. Watson's "Physics."

* To be had of the editor at Triplicane.
 † To be had of Mr. Numberumaliah at Hce & Co., Madras.
 ‡ To be had of the author at Rajahmundry.
 § To be had of the author at 'Lakeside', Chetput, Madras.
 || To be had of the author at Coconada.

Ganot's "Elementary Treatise on Physics", revised by Reinold.
 Glazebrook's "Heat," "Light," and "Magnetism and Electricity."
 Poynting and Thomson's "Sound."
 Glazebrook's "Statics" and "Dynamics."
 Robinson's Dynamics."

Loney's "Elements of Statics and Dynamics".
 B. T. E. Thorpe, "Inorganic Chemistry". 2 vols.
 Walker's "Introduction to Physical Chemistry."
 Remsen's "Chemistry, Organic and Inorganic."
 W. H. Perkin Junior and F. S. Kipping, "Organic Chemistry."
 Valentine's "Qualitative Analysis."

BRANCH IV.

History of Philosophy—Rogers' Introduction to Modern Philosophy.
 History of Ethics—The Ethics of Hobbes. By E. H. Sneath (Ginn & Co.).

BRANCH V.

European History—918-1273 A.D.
 Special subjects.

- (1) The Struggle between the French and English in India.
- (2) The Reign of Henry II of England: to be studied along with "The Life of St Thomas of Canterbury" in the "English History from Contemporary Writers" Series and with the following documents in Adams and Stephen's Select Documents: Constitutions of Clarendon, Assize of Clarendon, Inquest of the Sheriffs, Assize of Northampton, Assize of Arms, Assize of Woodstock, Ordinance of the Saladin Tithe.

M. A. DEGREE EXAMINATION 1910.

BRANCH II.

A.—The standard in Mathematics to be that of the B. A. degree examination of the University of Madras, in the following subjects, Analytical Geometry of two dimensions, Differential Calculus and Dynamics. In addition to this, subject-matter and methods treated in "Higher Mathematics for Students of Chemistry and Physics." by J. W. Mellor.

The standard in Chemistry to be that of optional Chemistry for the B.A. degree examination of the University of Madras, Organic Chemistry and Qualitative Analysis being excluded, and simple Quantitative Analysis (Gravimetric and Volumetric) being included.

B.—The standard in Physics to be that of Optional Physics for the B.A. degree examination of the University of Madras. In mathematics the subject-matter and methods treated of in the first six chapters of "Higher Mathematics for students of Chemistry and Physics (Second Edition)" by J. W. Mellor.

BRANCH IV.

I. Additional Problems.

- (1) Consciousness and nervous process. Continuity and discontinuity in consciousness. The sub-conscious. The static and the dynamic conceptions of truth.

- (2) The relation of Logic to Psychology. The theory of Judgment and its forms. The Logic of definition and classification.
- (3) Intuitionism among Idealists. The æsthetic, ethical and economic value—judgments compared psychologically. Liberty and security as constituents of the *summum bonum*.

II. History of Philosophy.

- (1) Pre-Socratic Philosophy.
- (2) Indian Logic.
- (3) Stoicism.

III. Selected authors.

- (1) Sturt's Personal Idealism.
- (2) Lotze's Logic. Books I and II.
- (3) Flint's Agnosticism. Chapters I to VII.

BRANCH V.

- I. *Ancient History*. The Roman Empire B.C. 31—A.D. 337.
- II. *Medieval History*. The life and times of Charles the Great.
- III. *Modern History*. as in 1909.
- IV. *Indian History*. The relations of the British Power with Afghanistan.
- V. *Historical Subject*. as in 1909.
- VI. *Science auxiliary to History*—as in 1909.
- VII. *International Law*—as in 1909.
- VIII. *Political Economy*—as in 1909.

BRANCH VI.

English.

Beowulf: Lines 1—1050.

Sweet's Anglo-Saxon Reader, Seventh Edition. Extracts I, II and IV to X.
 Morris and Skeat: Specimens of Early English, Part I, ix; Part II, vii, ix, xiii, xviii.

Chaucer: Prologue to the Canterbury Tales. Tales of the Knight and the Nun's Priest.

Skeat: Specimens of English Literature. Extracts IV, V, VIII, XI, XIV, XVI, XIX, XX, XXI, XXV, XXVII, XXVIII.

Shakespeare: Romeo and Juliet, Twelfth Night, Othello, The Tempest.

Ben Jonson: The Alchemist.

Milton: Paradise Regained.

Dryden: The Hind and the Panther.

Pope: Essay on Man.

Shelley: Adonais, Epipsychidion.

Tennyson: In Memoriam.

Bacon: The New Atlantis.

Dryden: Essay on Dramatic Poesy.

Swift: A Voyage to Lilliput, A Voyage to Brobdingnag.

Matthew Arnold: Essays in Criticism, 1st and 2nd Series.

Froude: Short Studies on Great Subjects I and II.

George Meredith: Diana of the Crossways.

Sanskrit.

Rig Veda: Mandala I. Hymns 1—36 with Sayana's Bhāṣya and

Mahabhashya-Ahnikas 1-3.
Siddhanta Kaumudi: Purvardha, excepting Taddhita.
Brahmasutras: With Sankara Bhashya, Chapter II.
Nyaya Ratnamala: By Parthasarathi Misra.
Tattva Bindu: By Vachaspati Misra.
Apastamba: Grihya Sutras.
Mahabharata: Udyoga Parva.
Kuvalyananda.
Malati Madhava.
Bana's Kadambari: Purva Bhaga.
Anargha Raghava.
Yagnavalkya Smriti.
T-2

Greek.

Homer: Odyssey I-III.
Sophocles: Oedipus, Coloneus, Philoctetes, Trachiniae.
Aristophanes: Acharnians, Birds.
Pindar: Olympia, Pythia.
Aristotle: Politics I-III.
Ethics I-III.
Demosthenes: Olynthiacs I, II.
Plato: Crito.

Latin.

Virgil: Georgics.
Horace: Epistles.
Persius: Opera Omnia.
Terence: Andria.
Lucan: Pharsalia.
Cicero: De Natura Deorum, De Amicitia, De Senectute.
Quintilian: De Institutione Oratoria, I, II and III.
Tacitus: Germania.
Pliny the Younger: Epistolae, VIII-X.

TAMIL.

Tamil as First Language.

Kamba Ramayanam: Balakandam.
Chintamani: Vimaliyarn ambagam, edited by Mahamahopadhyaya Swaminatha Aiyar.
Silappadhikaram:—Vanchikandam.
Pathittupattu: (6-9) Pattu.
Purananuru: (1-50) Agaval.
Tirumalai and Tiruppalliyezhuchi: by Tondaradippodi Alvar.
Tiruvaymozhi: (1-50) stanzas.
Ponvannattandadi and Adiula: by Sriman Perumal Nayanar.
Nannul: Solladhikaram.

Tamil as Second Language.

Villiputturar Bharatam: Sabha Parvamu.
Kamba Ramayanam, from Velvipadalam to the end of Karmukapadalam.
Kural: The fourth 20 Chapters.
Nannul: Verbs.
Philology (Verbs): by M. Seshagiri Sastriyar.

TELUGU.

Telugu as First Language.

Achcha Telugu Ramayanamu: Kandas 1 and 2.
Maha Bharatamu: Anuasasanika Parvamu, Canto 1.
Srimad Bhagavatamu: Skandha 3.
Panchaliparinayamu: Canto 1.
Sringara Naishadhamu: Canto 1.
Vasucharitramu: Canto 2.
Raghava Pandaviyamu: Canto 2.
Appakaviyamu: Canto 2.
Prabodhachandrodayamu, by Rao Bahadur Viresalingam Pantulu.
Sarva Lakshana Sara Sangrahamu: Cantos 1 and 2.

Telugu as Second Language.

Maha Bharatamu: Sabha Parvamu.
Markandeya Puranamu: Canto 2.
Parijatapahranamu: Canto 1.
Telugu Philology: (1-41 pp.) by Padi Venkataswami Garu.

KANARESE.

Kanarese as First Language.

Sabdamani Darpana: the whole, (Kittels' edition).
Kavyavalokana: the whole, (Mysore Government Press edition).
Adipurana: Aswasas 1-5 (Oriental Library Edition).
Kavyasaram: Pages 2-412. (Kavyamanjari Series).
Mitravendagovinda: the whole.
Adbhuta Ramayana: the whole.

Kanarese as Second Language.

Pampa Bharatam: Aswasas 1-3 (Mysore Government Press edition).
Kavyasaram: Stanzas 501 to the end (Kavyamanjari Series).
Kavyavalokana: Pages 1-81. (Mysore Government Press edition).
Karnataka Ramayana Natakam: the whole, by, St. Ayya Sastri.
Kannada Vachana Kadambari: the whole, (Kavyakalanidhi series).

MALAYALAM.

Malayalam as First Language.

Maha Baratam: Parvas 1 and 2.
Kimmira Vadham. Kathakali.
Nalacharitam. Kathakali.
Bhasha Naishadha Champu.
Adhyatma Ramayanam: (Kishkindha kanda and Sundara kanda).
Abhignana Sakuntalam, Bhashadattakam.
Krishnagatha: (Krishnapattu).
Alankaradipika, by Raja Raja Varma Tampuran.
Marthandavarma.
Bhagavatam: Dasamaskandham.
Mayura Sandesam.

Malayalam as Second Language.

Bharatam: Salyaparvam by Tuncha Ezzuthachan.
Nalacharitam: Kathakali, by Unnayi Wariyar.
Dakshayagam and Uttarasvayamvaram: Kathakali.
Krishnagatha: Rituvarnam.
Ascharya Chudamani.

L. T. DEGREE EXAMINATION 1909.

SPECIAL SUBJECT.

The Educational System of Japan, by W. A. Sharp, M. A.
No. 3 of the Occasional Reports issued by the Director-General of Education in India omitting chapters 3, 7, 8, 9, 10, 11, 14, 17, 22 and 25.

FIRST EXAMINATION IN LAW, APRIL, 1910.

- I. *Jurisprudence*. Austin's *Jurisprudence*, Volume I, omitting Lectures II, III, and IV. Maine's *Ancient Law*. Markby's *Elements of Law*.
- II. *Roman Law*. J. B. Moyle's *Institutes of Justinian*, except book III, Titles I to XII (inclusive), and Excursus I and X, and the Latin Text throughout; but including the Author's English translation.
- III & IV. *Contracts*. Anson's *Law of Contracts*. The Indian Contract Act with Cunningham and Shephard's Commentaries thereon. Casperz's edition of Chalmer's *Indian Negotiable Instruments Act*.
Torts. Pollock on *Torts*.
Principles of Equity in relation to Contracts and Torts. H. A. Smith's *Principles of Equity*.
Specific Relief Act, with Nelson's Commentaries thereon.

B. L. DEGREE EXAMINATION, 1910.

- I & II *Theory and Law of property including (a) The Law of Trusts and Trustees, (b) The Transfer of Property*. *Real Property*—Digby's *History of the Law of Real Property*. Goodeve's *Modern Law of Real Property*.
Indian Easements Act, with Michell's Commentaries thereon.
Personal Property. Goodeve's *Modern Law of Personal Property*.
Trust and Trustees. The Indian Trusts Act, with H. A. Smith's *Principles of Equity*.
Transfer of Property. Indian Transfer of Property Act, with Shephard and Brown's Commentaries thereon. H. A. Smith's *Principles of Equity*.
- III. *Hindu and Muhamadan Law*. Mayne's *Hindu Law and Usage*. MacNaughten's *Principles and Precedents of Muhamadan Law*.
- IV. *Law of Evidence*. Best's *Principles of Evidence*. Indian Evidence Act with Cunningham's Commentaries thereon.
- V. *Criminal Law*. Indian Penal Code, with Nelson's Commentaries thereon.
- VI. *Indian Constitutional Law*. Cowell's *Courts and Legislative Authorities in India*. The Historical Introduction in Ilbert's *Government of India*.

M. L. DEGREE EXAMINATION, APRIL 1910.

The following text-books are recommended for the guidance of candidates reading for the above examination; but it must be distinctly understood that questions will not necessarily be confined to the books specified:

BRANCH I—THE SCIENCE AND HISTORY OF LAW.

Jurisprudence—

Austin's *Jurisprudence*.

Maine's *Ancient Law*; *Early History of Institutions*; *Early Law and Custom*.

Baden Powell's *Land Systems of British India*; *Indian Village Community*.

Lightwood's *Nature of Positive Law*.

Kant's *Philosophy of Law* (Translated by Hastie).

Savigny's *System of Modern Law*: { Volume I (Translated by Holloway).
Volume II (Translated by Rattigan).

Holmes' *Common Law*.

Roman Law (General)—

Muirhead's *Historical Introduction to Roman Law*.

Salkowskie's *Institutes and History of Roman Law*.

Poste's *Institutes of Gaius*.

Mackeldy's *Roman Law*.

Roman Law (The Digest)—

Roby's *Introduction to the study of the Digest*.

* { Digest IX (2). *The Lex Aquilia or Damage to Property*. By Grueber.

{ Digest XLVII (2). *De Furtis*. By Munro.

{ Digest XIX (2). *Locati Conducti*. By Monro.

{ Digest XVII (1). *Mandati*. By Bryan Walker.

{ Digest XLI (1) and (2). *De acquirendo rerum Dominio*. *De acquirenda Possessione*. By Bryan Walker.

{ Digest VII (1). *De Usufructu*. By Roby.

{ Digest XII (1) and (4) to (7). *Conditionibus*.

{ Digest XIII (1) to (3). *De Conditionibus*. By Bryan Walker.

Legislation—

Bentham's *Principles of Morals and Legislation*.

Sidgwick's *Elements of politics*.

Maxwell's *On the Interpretation of Statutes*.

Public International Law—

Hall's *International Law*.

Wheaton's *International Law*. Edited by Boyd.

Pitt Cobbett's *Leading Cases and Opinions on International Law*.

Private International Law—

Dicey's *Conflict of Laws*.

Bar's *Private International Law*.

Foote's *Private International Law*.

Nelson's *Selected Cases in Private International Law*.

Constitutional Law and History—

Stubbs' *Constitutional History*.

Hallam's *Constitutional History*.

Erskine-May's *Constitutional History*.

Legal History—

Anson's *Law and Custom of the Constitution*.

Dicey's *Law of the Constitution*.

Stephen's *History of the Criminal Law*.

BRANCHES II AND III.

It is not deemed necessary to recommend any particular text-books in these Branches.

* It is already notified that one of the four portions bracketed will be prescribed yearly in rotation with reference to text-books in Roman Law (Digest)—vide notification in the *Fort St. George Gazette*, dated the 20th September 1901.

BRANCH IV.

CUSTOMARY AND STATUTE LAW RELATING TO LAND TENURE IN INDIA.

Maine's *Ancient Law*.

Maine's *Early History of Institutions; Early Law and Custom; Village Communities in the East and the West*.

Baden Powell's *Indian Village Community; Land Systems of British India*

Field's *Landlord and Tenant*.

For other parts of this Branch it is not deemed necessary to recommend any particular text-books.

L. SC. DEGREE EXAMINATION, APRIL.

Chemistry. Roscoe's *Lessons on Elementary Chemistry*. Wanklyn's *Water analysis*. Hasall's *Food and its Adulterations*

Physics. Balfour Stewart's *Lessons on Elementary Physics*. Scott's *Elementary Meteorology*. Buchanan's *Handbook of Meteorology*. Ganot's *Natural Philosophy for Beginners*.

Sanitary Law. Manuals for Public Offices of Health and Handbook for Inspectors of Nuisances, by Michael Corfield. Wanklyn's *Manual of Public Health*, edited by Earnest Hart. The different Sanitary Acts passed by the Government of India. The Sanitary Clauses of the Penal Code.

Vital Statistics. Dr Farr's *Vital Statistics*. Parkes' *Manual of Practical Hygiene*. King's *Manual of Hygiene*. Article on Medical Statistics in the Cyclopædia of Anatomy and Physiology. Reports of the Famine Commission. Madras Census Reports of 1881 to 1901.

Sanitary Engineering and Sanitation. Latham's *Sanitary Engineering*. Haskol's *Water Works, Sewers, Sewerage and Irrigation*. Krepp's *Sewerage Questions*. Corfield's *Dwelling Houses*. Galton's *Construction of Hospitals*. *Manual of Hygiene, Sanitation and Sanitary Engineering* (available at the Government Press, Madras).

General Hygiene. Parkes', King's and Wilson's Manuals. Moore's *Public Health*. *Manuals for Ireland*. Noel Hartley's *Manual of Health*.

General Pathology. Hooper's *Vade mecum*. Aitkin's *Practice of Medicine*. Klein's *Micro-organisms and Disease*.

The Indian Journal of Education.

Vol. XLVII.
Old Series.

AUGUST 1907.

Vol. XVI.
New Series.

Religious and Moral Education in Public Schools.

A. SUBRAHMANYA AIYAR, B. A., L. T.,

Lecturer, Rajahmundry College.

THE question of Religious Education in Public Schools has ever been a vexed question and has ever afforded abundant food for earnest reflection. The necessity for imparting religious instruction to our young men is much more keenly felt at the present time than ever before both by our own countrymen, the more advanced among them, who may practically be regarded as the influential custodians of our civilization, and by our rulers who are deeply interested in the moral welfare of their subjects. By our leaders the necessity is felt, because there have been unmistakable signs of late that a change has come about in our young men owing to the sudden contact of a foreign civilization with our own, and that the enchantments of that distant and elastic civilization have been much too powerful either to be overcome or to be regulated by them. The democratic forces of Western culture have had the effect of so influencing their minds as to seek for modifications in regard to what appeared to them in the light of their new learning to be certain social evils, and, in the zeal and glamour incidental to such new thoughts, to attempt even to eradicate them, though a fuller knowledge of the social forces and the laws of their operation may dictate a more cautious procedure; so that it is now felt to be urgent by the leaders of our society to provide a potent force to counteract the precipitate and hasty action induced by the sudden rush of these democratic forces. And as social customs in India are regulated by Religion, religious studies which have also suffered by the action of these forces are sought to be ruined, and it may well be hoped that the revival movement will eventually lead to a successful harmonisation of the spirit of Hindu civilization with that of Western thought and culture. By our rulers also the necessity is felt as keenly as by ourselves because they seek to maintain and develop in their subjects such qualities as will enable them to appreciate the beneficent character of their administration, and though they may

also be of the opinion that religious education may do a great deal in that direction, yet, having committed themselves to the principle of religious neutrality, they endeavour to realise their aims by means other than religious education.

Now, what is Religious Education, and what is its relation to Moral Education? It is generally understood that the aim of religious education from the teacher's point of view, is to cultivate in the pupils moral virtues of all degrees of social and individual utility. How such education can be given so as to realise the end in view, whether, after all, such education is absolutely necessary for the end contemplated, and whether this end should be the only end of religious culture, are questions which are well worth our serious consideration. Religion is essentially a condition of the feelings. It is a sense of dependence, a complex feeling of love, fear and wonder in the presence of the Infinite. Every moment of his life every man feels that he is in the presence of the Infinite, and the difference in this respect between the primitive savage and the enlightened philosopher is, that whereas the former feels the Infinite with more of fear and less of love, the latter feels the Infinite with less of fear and more of love. Now, Religious Education cannot mean anything other than the development of this complex feeling by suitable means, the maintenance of a continuous and ever increasing glow of this sentiment in the human breast by proper methods. But a feeling never exists in the human mind as an isolated mental phenomenon. It exists in association with an intellectual element and a volitional element. Religion, no doubt, is primarily what a man feels in the presence of the Infinite, but it is also, though secondarily, what he thinks about the Infinite and what he does towards the Infinite. The feeling that is primarily aroused in the presence of the Infinite is translated into thought and also into action. The nature of that feeling gives rise to certain conceptions about the Infinite, and all these conceptions which relate to God, World, Future Life, Sin, &c., constitute Theology, or the Science of Religion. This is the intellectual element associated with the religious sentiment. Further, the feeling in the presence of the Infinite prompts to actions towards the Infinite which form the daily deed and ceremonial usage constituting the practice of Religion. This is the volitional element associated with the sentiment. From this it is clear that religious feeling, religious thought and religious ritual must stand in a definite relation to one another. They are inter-dependent. A certain character of the feeling is appropriate to certain conceptions of Theology, and induces a certain form of ritual. The more refined the religious feeling, the more refined will be the conceptions relating to Theology and *vice versa*, the more refined also will be the forms of worship. If this

is so, we must slightly modify our original definition of Religious Education, and say that it implies not merely the development of the religious feeling, but also instruction in the theology and ritual connected with the feeling.

Now, we shall consider how far it is possible to educate the religious feeling. It is well known that you cannot approach the feeling of any person except indirectly. You cannot compel a man to love you except by doing some kind of offices to him, or putting him in mind of some good turns you might have done to him. You cannot provoke a man against another except by inducing in him certain ideas of wrong or injustice he might have suffered at his hands. Similarly, the religious feeling has to be fostered by the presentation of suitable objects, and the introduction of suitable ideas in the mind of the person who has to be religiously taught. He has to be placed in the midst of surroundings calculated to inspire in him the feelings of awe, love and admiration for the Supreme. No doubt, it is possible in a way to maintain the sense of dependence in the presence of the Divine by merely reminding him constantly of his relation to the Divine. But if you want to refine or improve the character of the feeling, you can only do it by refining or improving the conceptions connected with it, and by improving the forms of ceremonial usage. The improvement of the intellectual conceptions connected with religion is only possible when intellect in general expands and can realise or assimilate the improvement intended to be effected. Rituals, again, are the recurring external acts which are the outward manifestations of the inward religious sentiment. As is the sentiment, so is the ritual. But it is also true that the external manifestation affects the inward feeling. Hence a persistent performance of the ritual will not merely maintain the religious feeling but will also strengthen it. But if the feeling has to be refined or improved, then you will have to introduce refined forms of ritual adaptively to the general advance of intelligence. Thus, we see that the education of any one of them involves the education of the rest. But it must be distinctly remembered that the instruction in the dogma and ritual can be viewed only as a means to the education of the feeling.

The next question is, what are the agencies of education, and by which of those agencies can religious education be best effected? The agencies of education, in the broad sense of the term, are the Family, the School, the Vocation, the State and the Church. In the early impressionable years, the Family can do a great deal towards educating the child in his religion. The daily acts of religious ritual can be insisted on, and instruction in Theology may also be given with advantage. The sense of dependence on others which is prominent in children favours the development of the sense of dependence on the Infinite. The religious feeling may also be promoted by the

influence of example, by the grown up members of the family being devoted and pious. The Vocation and the State cannot do much in the matter of developing the religious feelings. It is the Church, in whatever manner organised, that distinctly proposes to itself the aim of religious education. The doctrines of Theology are taught, ceremonial duties are prescribed, and everything tending to foster the feeling is minutely attended to. The very atmosphere of the Church is favourable for disposing men to be pious. The object of the Church in giving religious education is, however to develop the spirit so as to enable it to obtain salvation.

The next point for consideration is, what is the function of the public school in relation to religious education? Should it concern itself with such education? If so, in what manner? That the school should concern itself with such education there can be no manner of doubt. The whole life of a man is a school in which all the influences at work tend to make him more and more perfectly adjusted to his environment. The public school proposes to adopt a definite system for this purpose and for this purpose only. The environment of the pupil is the achievement of the whole race. The racial mind, as well as the individual mind, may be characterised by the three functions of Intelligence, Feeling and Willing. The achievement of the race in the field of intelligence is constituted by the various sciences, that in the field of feeling is constituted by the various fine arts, and that in the field of willing is constituted by History, Constitution, Law and Morals. The School and the College must aim at giving instruction to the pupil as far as possible in all the departments just mentioned. Religion is a feeling and a very important feeling too, and cannot therefore be neglected. It has under various forms influenced men in all ages and in all countries. As Herbert Spencer points out, if there is a fact which is universally prevalent among all men, then there must be a core of truth in that fact. It may be that the fact is accepted on authority without formal verification; but so long as it is *universally* accepted, it means that it is in general congruity with the other facts which are accepted as true after verification by direct observation and judgment, and which thus afford an indirect warrant for its truth. Here is the religious sentiment which is universally present, and here are the religious ideas which are the products of that sentiment, and which are also universally present. The sentiment and the ideas must therefore be hard realities of nature. The religious sentiment is a constituent of man's nature. Either it is specially created by God, and it consequently designedly responds to its Creator by making itself decidedly felt as a force; or, it is the product of a long course of evolution by the operation of natural laws, in which case also it demands our respect and allegiance by the very fact that it has

survived long ages of struggle and is naturally selected as a factor working for the good of humanity. Hence, it demands the attention of the Educationist who, by neglecting it, would be neglecting one whole side of human nature, and that, the most important side too.

Next, what should be the teacher's aim in giving religious education to his pupils? And how should he give such education with a view to accomplishing that aim? It is perfectly clear that he need not seriously concern himself with securing salvation for his pupils; but it is undeniable that the factor of Religion is an all-pervading factor and that therefore its influence on the growing mind must be the broadest of all influences eventuating in no less a result than that very salvation. Human nature is a unity, injury done to any one part of it affecting the other parts. Similarly, the elevation of any one part of human nature must lead to the ennobling of that nature as a whole. The school master's aim, in general, should be not only to equip the pupil directly with the highest intellectual powers along with a good stock of intellectual material, and with a good moral power to make those powers and that material shine to advantage, but also to develop the highest feelings of his mind so as to secure their best influence on practical conduct and to make him effectively respond to the noblest calls that may be made on his nature and answer the highest messages that may happen to be conveyed to him. Perfection of nature ought to be his aim, but perfection is not attained when one whole side of the thing to be perfected is neglected. But the object with which religious instruction is sought to be introduced in public school is usually the development of the moral character of the pupils rather than the all-round development of the entire man.

In furnishing the pupil with the moral ability required to safeguard his intellectual wealth and to show it off to the best advantage, the teacher has been frequently known to give to his pupils what has been inappropriately called religious instruction. Under the name of religious instruction he has been known merely to evoke the aid of religion in support of his teachings in the practice of the moral virtues. He has been known to teach that moral rules are the commandments of God and ought to be obeyed on pain of punishment. But this is in plain terms direct moral instruction with the aid of religious sanction and not *moral elevation through religious education*. It may have its own uses, but it is a great way yet from that spontaneous ethical conduct which is induced by a cultivated religious sentiment, the special feature of which is to act as a counterpoise against violence of passion and inordinateness of desire. The sense of dependence in the presence of the Infinite, if developed and strengthened, will under the influence of a secret philosophic stimulus gradually extend

to others, and transform itself by degrees into a general spirit of dependence. This general sense of dependence will stamp out conceit and irreverence by being superimposed on these unworthy traits, and, so long as it is not allowed to degenerate into servility and cowardice, will lead to that spirit of self-abnegation which is the pivot on which most of the moral virtues turn, and which consists in the willing recognition of the superiority of other men's claims, and the consequent renunciation of one's own. This, it seems to me, is the only way in which religious education can be utilized for the development of the true moral sentiment. True moral conduct spontaneously flows from the development of the true religious instinct. The development of the religious sense, apart from all instruction in what they call Moral Theology, will eventually lead to the practice of the moral virtues, and we have now to consider how such a development can be worked out. Theological instruction will certainly tend to the development of the religious sentiment, because, as we have already seen, feeling can be refined and strengthened by the refinement and strengthening of the ideas associated with it. But the theology in which instruction is proposed to be given must have become purified and adopted to the enlightened sense of the community. It must be of an unexceptionable character. Similarly, insistence on the observance of the ritual will have the effect of deepening the religious feeling; but the ritual ought to be pure and exempt from all taint of grossness and superstition. In a public school attended by pupils of different creeds, a definite policy of theological instruction cannot be adopted; for, the question, which of the various religious creeds should constitute the standard for such instruction will ever remain a disputed question. The prevalent religious creeds are of all grades of refinement and moral calibre, and hence the question of organising religious education on the basis of any one of them under the fostering care of a refined Government must be very complicated indeed: To permit instruction to a set of pupils in a rude theology which tends to the development of practices not in accord with those required by the legal and moral codes recognised and enforced by the state, must ultimately give rise to difficulties which the state will have to grapple with. By imparting theological instruction on sectarian principles, by teaching one theology to one set of pupils and another to another, and so on, you cannot hope to secure that uniform influence on the conduct of pupils which above all ought to be the aim of every religious teacher to secure. Again, progress in every direction is what is aimed at in a public school, so that it would be nothing short of moral guilt to permit a set of pupils to be instructed in a theology which you know to be gross, unrefined and revolting to the modern enlightened sense. The principle of religious

neutrality observed by our Government may be traced to such difficulties among others, which are certainly numerous in our land occupied, as it is, by different races holding nicely differing philosophies, and professing still more nicely differing religions. The only course open to us in giving theological instruction is, therefore, to, select the doctrines common to all the theological systems prevailing in the community whose upheaval is sought to be effected by education, combine them into a common theology and teach this theology to a common class of pupils. Another thing that the teacher may be expected to do in the schoolroom as regards religious instruction is to quicken the religious life of the pupils by his own personal example and by citing examples of piety and devotion from history and fiction. He should control the daily life of his pupils, checking blasphemous tendencies and encouraging words and deeds suggestive of a god-fearing nature, and appropriate to a consciousness that, however much we may seek to explain the World-phenomena and processes, there will always be a limit beyond which human explanations become unavailing. At every step in the course of teaching, opportunities will arise which may advantageously be made use of for verifying the dependence of man and making the pupils feel the presence of an Infinite Power, through whose influence alone the World and Man are what they are and the former is intelligible to the latter. The observance of the refined modes of worship may be recommended, and certain unobjectionable modes of prayer may be adopted. By means such as these, it is open to the teacher to develop the religious sense of his pupils.

I cannot refrain from mentioning here that, according to a whole school of thinkers, Morality does not depend upon Religion and can be developed independently of it, though religious motives may vastly aid in the development. It is not true, they say, that the religious creed is first got at and that moral rules are subsequently deduced from it, but that the moral rules are first determined from other causes and then come to be connected with religion, being thenceforth viewed as the expression of the Divine Will. This is how every religion professes to inculcate a certain type of morality. In fact, the divine origin of a religion is tested by the morality it inculcates, and this is proof enough that we come into possession of morality independently of the religious creed. Further, it is said that there are men of excellent moral character who have not been bred and brought up in religious surroundings and who have not in their lifetime attached themselves to any particular creed; and there are also religious creeds that are absolutely immoral (from the enlightened man's point of view) in their tendencies and effects.

All this may be perfectly true. It is perfectly true that morality can develop and subsist under conditions other than those that are religious from utilitarian considerations. But such morality is at best artificial, and cannot be compared with that which springs from a sense of the Oneness of Humanity, i.e., from a sense of the identity of man and man. The latter is what the schoolmaster should ultimately aim at effectuating, though the former may have its own uses. If the World-process is conceived as revealing the history of the gradual unfolding and individuation of the Supreme Spirit, if the human spirit is conceived as the Supreme Spirit going through a course of further evolution for liberating itself completely from its bondage in material framework, when the method of such liberation is understood to consist in a course of rigorous discipline and self-control, doing duty for duty's sake regardless of consequences, completely renouncing life's enjoyments in favour of others that still cling to such enjoyments, in fact starving the body so as to neutralise its enchaining power on the soul, when this is conceived to be the method by which salvation can be obtained, then, Morality merges in Religion, and moral instruction means religious instruction. If you believe that love for others is an original fact of a nature, that in the earlier stages of Evolution it could not assert itself owing to the overpowering action of various agencies (the struggle for life being the foremost among them), that, as conditions improved and life progressed, it became stronger and stronger, that in man owing to various causes it has become so strong as to give a different direction altogether to evolution (this being now ethical instead of cosmical) if you believe all this, then you feel constrained to believe also that man's purposive intelligence which is itself a factor operating in the development of man and which is also half aware of its own destiny, must employ all means, natural and artificial, for strengthening this ethical factor so as eventually to annihilate the awareness of all distinction between *Meum* and *Tuum*, and to facilitate the dawn of the sense of the Oneness of man and man, and of man and God. Thus, artificial morality plays a role, not certainly insignificant, in the development of the pure Moral Sense, which is also Religious Sense. But that Secular Morality which is sought to be cultivated on purely utilitarian considerations and which is not made to rest on the sublime idea of the human soul rising to a sense of its oneness with other souls and with the universal soul is at best to be regarded as soulless and aimless.

The Teacher and Character-Building.

K. B. RAMANATHA AIYAR.

Before the Secretary of the Teacher's Association wrote asking me to deliver an address on behalf of the Society, The Secretary of the Teachers' Guild had asked me to arrange for a meeting of the Association. I was casting about for some good Samaritan who would deliver me from this difficulty; but the requisition from the Teachers' Association made me fancy that I might serve the two Societies myself. And thus we have come to hold a single meeting made up of the two bodies. These have natural affinities. The Members of the Teachers' Association might be supposed to be looking forward to success and triumph and the members of the other association back to past triumphs. The two societies may be appropriately symbolised by the Janus head which figures in the *Nineteenth Century*.

What would be the subject which might be presented to such a meeting made up of the two Associations? It must be a subject not too technical in its nature, close enough to the professional interests, and it must be one on which all of us, teachers, must be supposed to have bestowed some thought, one which may bear to be presented afresh without risk of suggesting staleness. When I thought of the present subject I was reminded of that boy of Oliver W. Holmes's who said he grew melancholy thinking of the men and women who lived when the bread before him for breakfast was baked. A similar melancholy feeling—I am afraid—may have come over my friends when they found this subject mentioned as the theme for my evening's discourse. My only apology is that I had no other subject handy, no other educational topic which I could work up for presentment before you in the limited time at my disposal.

Coming to the subject, it is possible to exaggerate the responsibilities of the teacher with respect to the matter of character-building. By way of compliment parents of boys tell us that theirs is the least contribution of the boy-entity—the physical integument of the human soul must certainly be counted inferior to the soul it clothes and the teacher is referred to as the parent of the soul. How ludicrous the exaggeration is we know, we who have been working as teachers, we who have had to question ourselves as to what we have done for the boys in our keeping. The extraordinary respect the teacher gets according to time-honoured Hindu traditions and sentiments—a respect he shares with the parent, is due to this exaggerated view of the teacher's responsibility. None of us, not even those who take the most exalted view of the profession, would care to claim this truly creative function.

Nor on the other hand would any body say that we have nothing to do with the formation of the character of the youths who are placed in our charge. Possibly enough such an easing of the burden may make the teacher devote himself whole-heartedly to the task of developing the intellect of the students and he would have less of the qualms of conscience that he has occasionally, as failing in this respect, if he takes himself and his profession seriously. A representative of this extreme view would subscribe to what Mr. H. G. Wells says in his *Anticipations*: "The windy pretences of forming character, supplying moral training, and so forth under which the educationist of to-day conceals the fact that he is incapable of his proper task of training, developing and equipping the mind, will no longer be made by the teacher."

Of the two views the first one will be of the Association and the second of the Guild.

The acceptance of even the last view will leave an appreciable portion of the boy's moral nature available for the teacher's fostering activities.

Anything like a full treatment of the subject is out of the question now. But it would be well to indicate the chief influences that shape character; the teacher being only one of such influences. The child or the boy or girl comes to the teacher after a certain stage of growth. Wasn't it Topsy that said, "God made me thus high and the rest I grewed." When the children come into the teacher's hands they come 'thus high' with certain tendencies and habits. The teacher hasn't a clean slate to begin with. It is now recognised that the Lockean notion of mind being a *tabula rasa* is an exploded myth. The brain is rather a palimpsest scribbled over and over again.

To proceed in an orderly manner. Character may be supposed to be the final resultant of certain tendencies inherited and modified by the action of the environment. The environment may be physical as climate and habitat, may be moral as associations and institutions. M. Taine has brilliantly illustrated the influences of such environment on the human spirit with reference to its expression as literature. The teacher's place is among the moral part of environment.

The congenital endowment gets so soon modified by environment that it is hard to discriminate between it as it originally is and the guise it soon assumes. Still we observe certain patent inequalities among persons. There is the quantity of vital energy each is born with. The energy one has is so much more or so much less than another is endowed with. If a man lives in unenergetic life and does not set the nearest brook on fire and, when the

inevitable shears slit his thin spun life, he ends his race and the place he lived in knows him no more, and another

Makes by force his merit known
And lives to clutch the golden keys
To wield a mighty State's decrees
And shapes the whisper of a throne,

the difference is due in a great degree to the difference of original endowment.

If we recognise that men are differentiated by the vital energy they are born with, by capacity and instincts and temperaments, and if we further recognise that the environments as they influence the men are of the most various and complex sort, we can realise the forces at work to bring about the amazing complexity and manifoldness of human nature.

The influences of physical environment referred to above, as climate and geographical conditions, the influence of the seasons, are beyond control. They are to be taken as we find them.

Not so the physical environment of each man's soul. Bodily health and vigour can be made the subject of special care and as the efficiency of man as a member of society depends on his bodily health, it is an important educative factor. The 'athletic craze' may be an unlovely development of this side of education. It may be regarded as outside the scope of the teacher's special work but it is too important to be ignored. Neither the teacher who neglects to keep himself in as efficient a condition as possible by physical exercise nor one who allows slackness in the matter of physical education of his pupils can be considered a worthy member of our fraternity.

Another of the educative influences made familiar to us all by Wordsworthian poets is that of nature. The substantial truth of the teaching lies in this: "It will be a lifelong gain to boy and girl to have formed their first notions of life and work from what they have seen in country places. The instinctive interest of children in the green earth, in the blue sky and in their feathered and fourfooted tenantry can be fostered into a lifelong resource by right nurture, by country holiday, by love of garden, by skill with pencil or brush, by natural history lessons". *

Coming to institutions that influence character, the family will be recognised as easily the first. The home as it is normally—in its habitual preferences, its predominant interests, its settled estimates of persons and pursuits, its ordinary circle of associates, its standards of living, its accepted ideals of work and amusement will give a ply to character that will last a lifetime. The immense responsibilities of parents it is not for me to dwell upon here; but I may refer in passing to Sully's *Studies of Childhood*—

* Mac Cunn's *Making of Character*.

especially the chapters on *The Raw Material of Morality and Under Law*—as throwing an interesting light on the difficulties that beset the path of the earnest parent.

Next in importance to the Family is the School. Any detailed reference to it as influencing character will come up later.

Friendship as a force to strengthen and restrain, as a sort of second conscience to nerve us to deeds of virtue, and to keep us from falling off from a high ideal of conduct, is a powerful influence. Friendship serves as a sort of training ground for enlarged sympathies. From the narrow rut of family affection which is only egoism writ larger we pass through friendship to the wider interests of city life and thus cultivate public affections.

Our professions leave an impress on character that is easily recognised. Mr. William James refers in his *Principles of Psychology*, in the chapter on Habits to which I may have to call your attention again—to the professional mannerism settling down on the young commercial traveller, on the young doctor, on the young minister, on the young counsellor-at-law—on the young teacher I might add. You know of Lamb's complaint of how the School Master wanted to teach *him* composition. The increasing division of labour has the effect of regarding men into means and neglecting them as ends and thus we are made fragments of men losing our right to full manhood. There is at the same time the wholesome effect of compulsory work on us making us effectively realise moral obligation.

Citizenship and religious organisations are other institutions that shape and use character. The importance of these latter need not be dwelt upon and any attempt to describe the influence these have on character will take us too far.

So far as we have proceeded, we see that if we leave on one side the physical environment not amenable to human control, there are educative influences—natural educative influences as of bodily health, and of nature (Wordsworthian) and there are the institutional influences of family, school, friendship, profession, citizenship and religious cult.

The School Master proper has to do only with one of these institutions—namely the school. You see what a model rôle he has to play in shaping character.

Now I will proceed to the consideration of character: what it is in its nature and what parts of character are amenable to school discipline.

We hear a great deal of character. A satisfactory account of what it is, presented in a coherent way, I have not seen. The science of Ethology—*as* Mill called it—is yet to be written. An early work of Dr. Bain now

out of print—is the only systematic treatise I know in English on Character. He adopts the analysis of mind that he has made familiar to students of psychology. That Dr. Bain thoroughly believes in his analysis of character he shows in his account of the younger Mill's character: "Mill had", says Bain, "a very fine constitution physically. His father's brain was encased in an admirable frame work. His muscle was good to the last and his nutritive powers failed only in consequence of a strain that they should never have been subjected to. The nervous system was habitually kept at a high tension all through. The general cast of his mental powers was high in all regions of mind. With a predominance of intellect, he had great power of will, and unusual depth of feeling. He had preeminently the sanguine temperament" and so on systematically following his own analysis of mind. In Mr. Minto's *Prose Literature* also you see Dr. Bain's influence. He worked under Dr. Bain when he prepared the book.

Dr. Whitby's *Logic of Character*—a recent book—is on a more modest plan. The psychological elements of character are analysed into (1) (a) Sensation, (b) Emotion (c) Disposition (2) (a) Perception (b) Reflection (c) Judgment (3) (a) Automatism, (b) Mimesis (c) Volition. The analysis is on the usual lines. Then the subject is treated under six distinct heads or categories of implicit character, personal character, practical character, social character, individual character, universal character. There is an elaborate further analysis of each of these under three heads subdivided into three again. If you don't mind the formidable division and subdivision you will find a great deal to interest you as students of psychology and character in the book.

Character in Murray's *New English Dictionary* is described as 11 *the sum of the moral and mental qualities which distinguish an individual or a race viewed as a homogeneous whole—the individuality impressed by nature and habit on man or nation; mental or moral constitution.* 12. *Moral qualities strongly developed or strikingly displayed, distinct or distinguished character.* It is the first rather than the second meaning that must be accepted here. The second, namely, moral qualities strongly developed or strikingly displayed, we are familiar with in literary sketches, in the satirical portraits of Dryden, Pope or Johnson. For our purpose the first meaning of the sum total of mental qualities viewed as a homogeneous whole will serve. The qualities are not to be regarded as made up some how into a loose bundle possibly of discordant impulses. They form a homogeneous whole. There must be an organic union of the qualities, they must form a unity or system. "A perfect character" says Sully in the book you are familiar with, "is one

which is reflectively intelligent in the sense that it strives to coordinate each of its aims under a general conception of good which it makes supreme, and is ready, where new circumstances arise and the line of right action is not at once apparent, to pause and reflect." The coordination of aims under a general conception of good is the essence of character. This is the last result of culture and life. It is very few "who when brought

Among the task of real life, have wrought
Upon the plan that pleased their boyish thought."

The reference to good as the end shows that the reference is to moral character. While all mental peculiarities are admitted to be elements of character, common usage gives prominence to the aspect that is the resultant of volitional processes.

The business of the teacher is as we know chiefly with the development of the pupil's intellect. That it is so is a matter of common knowledge. No teacher that fails to do this work is allowed to plead in mitigation of his failure that he was too busy improving the character of the youths entrusted to his charge. Improvement of character may be expected to concern him only so far as such improvement may be directly related to his work. I know that objection would be taken to this view and I may be told that it is the least of the teacher's work; that the great head master of Rugby put in the forefront of his aims the inculcating of religious and moral principle. Then came gentlemanly conduct among the pupils; cultivation of intellectual ability ranked only as the last of the aims. It must be remembered Arnold was a clergyman, that the School was a Boarding School and when the conditions of School life here approach those of England there will be more and more insistence on the virtues of corporate life.

We are willing to accept the division of labour in other professions and if we want to have work efficiently done in school, we must not burden the teacher with more responsibilities than he can bear. The difficulty and complexity of the intellectual work of the teacher will more and more be recognised and it will in time to come be treated as beyond the capacity, says Mr. Wells (*in Mankind in the Making*) of any earnest but muddle-headed young lady or any half educated young gentleman in orders and the writer is indignant that we demand from the teacher in addition "the formation of character, moral and ethical training and supervision, aesthetic guidance, the implanting of a taste for the best in literature, for the best in art, for the finest conduct; we demand the clue to success in commerce and the seeds of a fine passionate patriotism from these necessarily very ordinary persons". That is forcibly put; but we know what he means. Limitation, concentration, is the only best way of securing the ends we have in view. I

should be content to judge of a teacher from his work as training the intellect of the pupils entrusted to his charge. We are no longer under the influence of the earlier psychology which regarded mind as made up of different compartments having no relation to one another. Training the intellect will not mean neglecting the will or the feeling; it necessarily means training of the volitional processes as affected by modes of thinking, promoting intellectual curiosity, shaping character, forming habits of clear thinking, and intellectual honesty.

Taking even the most restricted view, there are some preeminently noticeable virtues for the practice or neglect of which the inspector has a keen eye and which he refers to as the tone of the school. Sir Joshua Fitch says it means "the prevailing spirit of the place, its cheerfulness, the mutual helpfulness of its members, its love of work, its orderly freedom, its well directed ambition, its scorn of meannesses or subterfuge; the public opinion of an organised body of fellow workers, all in their several degrees helping one another to fulfil the highest purposes of a school". We have read in school reports remarks on the tone of the school and experts in school inspection are able to find it all in the few hours they devote to the task as cleverly as Burleigh in the play was able to put a great deal of meaning in his single nod.

Let us descend from ambitious generalities to common place virtues of the school room. We insist on such virtues as cleanliness and neatness in dress and belongings, orderliness and obedience, punctuality. These may be referred to as the threshold virtues. In connection with school work there are opportunities of training pupils in the practice of truthfulness and honesty, love of excellence, modesty, patience and courage. If the teacher's work should in any way be successful he will have roused in him a love of work and intellectual curiosity or an ardent unquenchable thirst for the things of the mind. I might use the analysis of Dr. Whitby or Aristotle, but I don't want to lengthen the paper unnecessarily.

The arena for the cultivation of the virtues will be in the school room, in the play ground, in the Library or Reading Room, in the Debating Societies and in the Hostels. With the accretions above mentioned round the school there are increased opportunities for the teacher making his usefulness felt.

He will as a student of psychology note how individual acts if repeated tend to grow into habits and he will make the principle of habits his ally. "The great thing in all education," says Prof. James, "is to make our nervous system our ally instead of our enemy. It is to fund and capitalise our acquisitions and live at ease on the interest of the fund. For this we must make automatic and habitual, as early as possible as many useful actions as

we can; and guard against the growing into ways that are likely to be disadvantageous as we should guard against the plague." "As we become permanent drunkards by so many separate drinks, so we become saints in the moral, and authorities and experts in the practical and scientific spheres by so many separate acts and hours of work".

Hence the need in the teacher to stop the formation of bad habits in the pupil and to foster the formation of good habits. He will have to use all powers of discipline from gentle reproof to corporal punishment if need be.

In the premier Training College of the Presidency I need not refer to the help good organisation gives the teacher. By not attending to this a teacher otherwise good unnecessarily handicaps himself and the class hour which would under different conditions be so enjoyable to himself and his pupils becomes one of worry and annoyance. There is a great deal in the working of the school as a whole, on the character of the Head master, on the character of the teachers who are associated with us in the work, in the apparatus and appliances we have. We cannot remedy any short comings in these matters. But the short comings of one particular individual each is responsible for and him or her we must constantly improve.

What the teacher is in himself influences so powerfully the pupils that there is the greatest need in the teacher to make himself worthy of the trust. He may not take himself seriously, but the pupils do and that fact must make him pause before he indulges in thoughtless or foolish behaviour. That he must love his work, that he must care for the boys and that he must be morally and intellectually a worthy man, that he must keep bright and undimmed in himself the ideals of moral and intellectual life need not be insisted upon. In his humility he may fancy he produces little or no appreciable effect around him. But he must remember that the best work of the world is done in obscurity, in other than lime light. "Every conscientious action is in the degree of rationality, if not also in the degree of its benevolence, an immortal contribution to the welfare, the freedom and the greatness of mankind."

I thought it would be a nice way of finishing my address if I should give you—after Wordsworth—the character of the Happy Teacher.

Who is the happy teacher, who is he

That every budding L. T. would wish to be?

My genius is Audrey-like unpoetical and at the end of the couplet there was an ebb of inspiration.—So I give up the attempt leaving it to be worked up by more happily endowed spirits. But I am determined not to be balked of my ambition to have a few lines of poetry—If I can't compose them I

can borrow the lines: I figure the teacher as one

Who comprehends his trust, and to the same,
Keeps faithful with a singleness of aim!
And therefore does not stoop, nor lie in wait
For wealth or honours or for worldly state;
Whom they must follow! on whose head must fall,
Like showers of manna, if they come at all
Whose powers shed round him in the common strife,
Or mild concerns of ordinary life,
A constant influence, a peculiar grace.

It has been said that after the invention of the printing press the true place of instruction is the library and not the school-room. It will be admitted that even to use the library properly some previous instruction is necessary. If there is the need of the instructor for purely instructional purposes, the need of personal influence for touching the spirit to fine issues, for kindling moral enthusiasm is much more imperative. "Ideas are often poor ghosts! our sun-filled eyes cannot discern them; they pass athwart us in their vapour, and cannot make themselves felt. But sometimes they are made flesh! they breathe upon us with warm breath, they touch us with soft responsive hands, they look at us with sad sincere eyes and speak to us in appealing tones; they are clothed in a living human soul, with all its conflict, its faith and its love. Then their presence is a power, then they shake us like a passion, and we are drawn after them with gentle compulsion, as flame is drawn after flame".

May your presence be such a power, may your pupils be drawn to you as flame is drawn to flame.

Some facts about Mr. John Morley.

A RETIRED TEACHER.

THERE is in the human mind an inherent love for *wholeness*, a demand that man shall come up to the highest standard; and there is an inherent protest against, or contempt for, preventable deficiency. Diogenes' running through the streets of ancient Athens in broad day-light with a lighted lantern in search of a man; and Jeremiah's injunction to the Jews, "Run ye to and fro through the streets of Jerusalem, and see now, and know, and seek in the broad places thereof, if ye can find a man."; are graphic illustrations of the genuineness and strength of that innate longing. Between Mr. Morley as a thinker and Mr. Morley as a man of action the critics perceive a great gulf. That gulf they find it rather hard to bridge over. How wide the gulf is cannot be better described than in the language used by Mr. Morley himself in connexion with the great French historian: "Guizot had undergone years of patient historic study; nobody of his time had reflected more carefully on the causes and forces of great movements. He had more of what is called the calm philosophic mind than any one

then eminent in literature; he overflowed with the highest kind of wisdom; his moral pretensions were austere, lofty and unbending to a fault. No man of any time would seem to have been better entitled to a place among the wise and good, whom nations ought to seek out to rule over them. Yet this great man was one of the very worst statesmen that ever governed France. The severe morality of the student was cast behind him by the minister. He did not even shrink from defending from considerations of political convenience the malversations of his colleague... Finally this famous professor of political science possessed so little skill in political practice, that few years of his policy wrecked a constitution and brought a dynasty to the ground." Exactly the same kind of contrast Mr. Morley's critics see in his conduct also, though they in their heart of hearts wish that the last few words of the above pen portrait may not prove prophetic. A graver indictment they could hardly wish to draw. Of him also may be said with more or less equal truth what Tacitus said of the Emperor Galba: "He was regarded as greater than a private individual so long as he remained one, and, by the consent of all, would have been deemed worthy to rule had even he ruled". Why should promise outrun performance so sadly, so disappointingly? Whence the irony? Whence the mystery? The answer is not far to seek; it is patent enough. Nothing in the universe is final. All facts are initial. Man is not man as yet. The best of us are but approximations, tendencies, suggestions, prophecies, of that which is to come. "*Becoming*", and not '*become*', is the one great lesson which we are slow to learn, but which nature is never tired of preaching. Great men, clever men, able men, there are, but symmetrical men, there are not. "In a thousand cups of life," says Emerson, "only one is the right mixture". Each man carries in his constitution a drop too much. From Mr. Morley, the writer, thinker, philosopher, to Mr. Morley, the talker, actor, politician, there is a wide step. That step is a downward step. And hence the anomaly. Thought expands, but lames; action invigorates, but narrows. The object of the philosopher is truth, whereas the object of the politician is expediency. Logic admits of no compromise, whereas the essence of politics is compromise. Philosophy means the complete liberty of the mind, and therefore independence of all social, political, or religious prejudices; whereas to act, we must believe; to believe, we must make up our minds, affirm, decide, and in reality prejudge the question; he who will only act upon a full scientific certitude is unfit for practical life. Politics is the science of exigencies. To apply to the acts of Mr. Morley as a politician the canons which as a thinker he has laid down is to lose sight of the above limitations. The following admissions on his part should also, we think, go a long way in disarming criticism: (1) "All politics are a rough

second best. That is no reason why we should not strenuously exert ourselves to make them as good as we can. It is no reason why we should by unmanly fastidiousness or apathy let them sink into third best or no best at all..... Only let us each make sure of one inexorable expectation, year in and year out—to demand the uttermost from ourselves." But (2) "Practically and as a matter of history, a society is seldom at the same time successfully energetic both in temporals and spirituals; seldom prosperous alike in seeking abstract truth and nursing the political spirit. There is a decisive preponderance in one direction or the other, and the equal balance between free and active thinking, and coherent practical energy in a community seems hard to sustain." If we read "*Mr. Morley*" for "*a society*" and "*a community*" in the latter extract, the self-accusation or self-defence becomes complete. And to belabour Mr. Morley even after this, is to beat a cripple with his own crutch. True statesmanship—the art of changing a nation from what it is into what it ought to be—he has not, even in the slightest degree; though he recognises with his master, Mr. Burke, a statesman's need of rather a large converse with men, and much intercourse in life, than deep study of books. The saying of Coleridge that in politics what begins in fear usually ends in folly, has proved lamentably true. Is this, after all, to be the verdict on Mr. Morley's performances? Have they no better lot? Let not, however, objects close to the eye shut out much larger objects on the horizon, and splendours born only of the earth eclipse the stars. Let us not cover up the entire disc of the future with a dollar, and quench transcendent glories with a little shining dust. Mr. Morley has given us books, great books; it is books that have made revolutions. A great book is often a greater thing than a great battle. Mr. Morley belongs to a longer-lived race than heroes; he will breathe the air of immortality. He will be living, breathing and moving in his writings, while the conquerors of the world are but the ashes in an urn. "The sympathy (so to speak) between thought and thought is more intimate and vital than that between thought and action. Thought is linked to thought as flame kindles into flame. Words, ideas, feelings, with the progress of time harden into substances: things, bodies, actions, moulder away, or melt into a sound, into thin air..... not only a man's actions are effaced and vanish with him; his virtues and generous qualities die with him also. His intellect only is immortal, and bequeathed unimpaired to posterity. Words are the only things that last for ever." So says Hazlitt. So we hope it will be. It was an evil day and evil hour that Mr. Morley doffed the mantle of the philosopher, and donned the cuffs of the politician. It was an evil day and evil hour when he who ought to have been a model to society was allowed to become its tool.

worship, and so it spread rapidly among the people, which it would not have done, probably, had it been opposed to the ancestor worship. Buddhism thus absorbed, as it were, the Shintoism, until the revival or rather the rise of Neo-shintoism, in the middle of the eighteenth century, a period which was most remarkable for its reaction against old traditions and schools in almost every branch of intellectual, moral and artistic activity. At the beginning of the Meijera all the Shinto shrines were purified and Buddhism and Shintoism were entirely separated, at least officially.

What I want to bring out is that Buddhism which, if not actually opposed to ancestor worship, does not essentially hold it, had to modify itself so as not to come into conflict with the deep-rooted belief of the people, and adapt itself to the national practice, and came to encourage the ancestor worship. And thus the worship of ancestors has continued from the oldest times to the present day and been the most powerful factor in moulding our national character. Nor does the introduction of western civilisation, which has wrought such changes in other matters, seem to have had any effect on this. At the present day, in every Japanese household, in addition to the Kamidana, which I mentioned as a sort of domestic shrine, there is another sacred place called Butsudan, or Buddhist altar, containing cenotaphs bearing the posthumous Buddhist names of the ancestors; or, if the family be of pure Shinto persuasion, a second Kamidana, containing cenotaphs of the ancestors of the family. There are certain festival days, when offerings are made and family graves are visited and decorated; at the beginning and the end of each year, just as people go about visiting the living, so the graves of the ancestors are visited and offerings of flowers and incense made. So, also, if a man goes on a long journey he will generally go to take leave of his ancestors' graves, just as he would go to the living; if he lives in a distant place, he will often go long journeys to visit them. Thus, to a Japanese, the spirit of his ancestors is ever present in all the events of his life.

You will, of course, see the intimate relation that I said existed between the ancestor worship and the reverence towards the Imperial House. The Japanese do not worship at the shrine of the Imperial ancestors, such as that at Ise, simply because they are the shrines of the ancestors of the Emperor, but also because they are the shrines of the sovereigns of our ancestors. The relation between the Imperial House and the people is not merely a relation between the reigning sovereign and his subjects, but also one between his ancestors and our ancestors for generations, from the very beginning of the Empire. This relation is clearly assumed in the Rescript on Education. Or take the words of the preamble to the constitution promulgated, as you are aware no doubt, in 1889, as a free gift from the Emperor to his people:

"Having, by virtue of the glories of Our Ancestors, ascended the throne of a lineal succession unbroken for ages eternal; remembering that our beloved subjects are the very same that have been favoured with the benevolent

care and affectionate vigilance of Our Ancestors, and desiring to promote their welfare and give development to their moral and intellectual faculties; and hoping to maintain the prosperity and progress of the state, in concert with Our people and with their support, We hereby promulgate, in pursuance of Our Imperial Rescript of the 12th day of the 10th month of the 14th year of Meiji (1881), a fundamental Law of State to exhibit the principles by which We are to be guided in Our conduct, and to point out to what Our descendants and Our subjects and their descendants are for ever to conform. The rights of sovereignty of the state We have inherited from Our Ancestors, and We shall bequeath them to Our descendants."

Again, in the Imperial speech on the same occasion are the following words:

"The Imperial founder of Our House and Our other Imperial Ancestors, by the help and support of the forefathers of Our subjects, laid the foundation of Our Empire upon a basis which is to last for ever. That this brilliant achievement embellishes the annals of Our country is due to the glorious virtues of Our sacred Imperial Ancestors, and to the loyalty and bravery of Our subjects, their love of their country and their public spirit. Considering that Our subjects are the descendants of the loyal and good subjects of Our Imperial Ancestors, we doubt not but that Our subjects will be guided by Our views, and will sympathise with all Our endeavours, and that, harmoniously co-operating together, they will share with us Our hope of making manifest the glory of Our country, both at home and abroad, and of securing for ever the stability of the work bequeathed to Us by Our Imperial Ancestors."

These words, I think, will be sufficient to illustrate what I have said about the relation between the Imperial House and the people. Truly, as a recent Japanese author on the awakening of Japan has remarked, that sacred conception (Mikado) is the thought inheritance of Japan. 'Mythology has consecrated it, history has endeared it, and poetry has idealised it.' I hope that what I have been saying will give you some idea of the message that the Rescript conveys to us, and how it serves as the basis of our moral education. It remains for me to explain how this Rescript came to be issued. For that I shall have to go back to the beginning of the Meiji era. In April 1868, the year after the accession to the throne of the present Emperor, one of the first acts after the real power of Government was restored into the Imperial hands was to swear solemnly the following memorable oath, known in our history as 'the Imperial Oath of Five Articles.' The five articles are as follows:

- (1) Deliberative assemblies shall be established, and all measures of Government shall be decided by public opinion.
- (2) All classes, high and low, shall unite in vigorously carrying out the plan of the Government.
- (3) Officials, civil and military, and all common people shall, as far as

Japanese Education

BARON KIKUCHI.

In Japanese schools, when masters and pupils assemble in the hall of the school at the beginning of a school session or term, to celebrate the New Year's Day, or other fete days, on Commemoration days and on Graduation days, in fact, in all school functions, and likewise in many other functions connected with education, it is usual to commence the proceedings with the reading of the Imperial Rescript on Education. This is no empty ceremony: the reader, who is usually the principal, feels that he is giving the living words of his Majesty the Emperor. The assembly stands up, and when the reading is over, all bow in profound reverence, as if they had been delivered by the Emperor in person. A copy of this Rescript is distributed from the Department of Education to every school in the Empire, whether established and maintained by the central government, local governments, or by private individuals or corporations; those for the central government schools being actually signed by the Emperor. This copy of the Rescript, together with the photographic portraits of the Emperor and the Empress, which are distributed on application from the Imperial household, to all schools above the higher primary grade maintained by the central or local governments, are kept in a special place in the school and carefully guarded. There have been instances when the principal or a teacher of a school saved them at the risk of his life from the flames, when the school-house was burnt down by conflagration: such deeds are not officially encouraged, but there can be no doubt that they make a most profound impression on the minds of children.

I think I cannot do better in this Inaugural Address to the course of lectures on Japanese Education than say something about this Rescript, and explain the circumstances leading to its issue in 1890, little more than sixteen years ago.

I shall begin with the translation, which I may say has been made specially for this course of lectures. One of the first things I did, when I accepted the invitation of the University of London to lecture before an English audience on Japanese Education, was to look out for a good English translation of the Rescript. There were several translations, but none of them was satisfactory, to my mind, some being absolutely erroneous, while others were paraphrases rather than translations, therefore conveying sometimes more, sometimes less, than the original. I mention this because some of you may have seen these translations. So I attempted a new translation myself, which I published in papers and magazines, inviting criticisms and even asking for new translations. I also got Mr. Makins, the present Minister of Education, to interest himself in the matter; meetings were held, in his official residence, of those interested in the matter, amongst whom the names of Barons Suyamatsu and Kaneko, Professors Inouye, Nitolec, Takakusu, and Kanda may be known to you. After a long and warm discussion a draft was made, of which I took charge, and after consulting some English and American professors a final draft was obtained. I have here a copy

which came from the printers just the day before my departure from Japan. Mr Makins told me that he was going to present a copy to his Majesty the Emperor at the earliest opportunity. So this may be said to be almost an official translation. It is as follows:—

THE IMPERIAL RESCRIPT ON EDUCATION.

Know ye, our subjects.

Our Imperial ancestors have founded Our Empire on a basis broad and everlasting, and have deeply and firmly implanted Virtue; our subjects ever united in loyalty and filial piety have from generation to generation illustrated the beauty thereof. This is the glory of the fundamental character of Our Empire, and herein also lies the source of Our Education. Ye, Our subjects, be filial to your parents, affectionate to your brothers and sisters; as husbands and wives be harmonious, as friends true; bear yourselves in modesty and moderation; extend your benevolence to all; pursue learning and cultivate arts, and thereby develop intellectual faculties and perfect moral powers; further more, advance public good and promote common interests; always respect the Constitution and observe the laws; should emergency arise, offer yourselves courageously to the State; and thus guard and maintain the prosperity of our Imperial Throne coeval with heaven and earth. So shall ye not only be our good and faithful subjects, but render illustrious the best traditions of your forefathers.

The way we set forth is indeed the teaching bequeathed by our Imperial ancestors, to be observed alike by Their Descendants and the subjects, infallible for all ages and true in all places. It is our wish to lay it to heart in all reverence, in common with you, our subjects, that we may all thus attain to the same Virtue.

The 30th day of the 10th month of the 23rd year of Meiji.

(The 30th of October, 1890.)

(The Imperial Sign Manual. Imperial Seal.)

I fear that, however we may translate it, the translation will not convey the same message to you that the original does to a Japanese; in fact, it may be said that our whole moral and civic education consists in so imbuing our children with the spirit of the Rescript that it forms a part of our national life. The cardinal virtues which are pre-eminently put forward are loyalty to the Emperor, with which is identified patriotism to the State, and filial piety, including therein not only duties due to one's parents, but to ancestors in general, all the rest may be said to be regarded as an outcome of these two. The Rescript admonishes us to certain rules of conduct, that we may, "thereby guard and maintain the prosperity of the Imperial throne", for we shall thus not only be good and faithful subjects of the Emperor, but render illustrious the best tradi-

possible, be allowed to fulfil their just desires, so that there may not be any discontent among them.

(4) Uncivilised customs of former times shall be broken through, and everything shall be based upon the just and equitable principle of nature.

(5) Knowledge shall be sought for throughout the whole world, so that the welfare of the Empire may be promoted.

Desiring to carry out a reform without parallel in the annals of our country, we ourselves hereby take the initiative, and swear to the deities of heaven and earth to adopt the above fundamental principles of national government, so as to establish thereby the security and prosperity of the people. We call upon you all to make combined and strenuous efforts to carry them out.

These five articles, so solemnly enunciated by the Emperor before the Court assembled in Shishenden, or the throne-room of the old palace at Kyoto, have been the fundamental principles according to which the Government has since been carried out.

In accordance with this oath, radical changes followed in rapid succession. The most important of these was the abolition of the feudal system. In 1869 the great Daimyos of Satsuei, Choshu, Hizen, and Tosa memorialised the Throne that it was just and proper that all lands and people of the Empire should come under the direct control of the Emperor; other Daimyos followed their example; thereupon all the Daimyos were summoned to a consultation; and in consequence of their recommendation all the fiefs hitherto held by them were restored to the Emperor, the Daimyos receiving one-tenth of the revenues of their former fiefs; Samurais, the old retainers of Daimyos, but now directly subject to the Emperor, also received pensions. These pensions were afterwards commuted into national bonds. Thus the great feudal nobles voluntarily gave up their territories and their power, even of life and death, over the people in those territories which they had held for centuries because it was just and proper. Many measures were then carried out which it would be difficult to carry out at any other time. It is not to be wondered at that the Government and the people, in their anxiety to introduce western civilisation and bring themselves up to the level of the western nations in power and prosperity, sometimes threw overboard things that it would have been well to keep, and often tried to adopt western methods wholesale, without troubling to consider whether they would be suitable to our national characteristics or not, or taking care to adapt them to our special needs. Just to give one instance from our educational system, when the first normal school was opened in Tokyo, in 1872, and an American engaged to teach the method of instruction in primary schools, the Minister of Education gave express instructions to the American teacher that he was to give instruction exactly as he would in America, and not to think of modifying so as to adapt his teaching to the Japanese. The chief aim at that time was rather to cut away from the past, or, in the words of the Imperial oath, 'to break through the uncivilised

customs of former times,' 'to seek for knowledge through the whole world', and to construct a new system based 'upon the just and equitable principle of nature. Perhaps if they had stopped in those days to consider deliberately, and spent time in adjusting and adapting before adopting, we might have been spared some errors, but it is doubtful whether we should have been able, on the whole, to make such advances as we have. As we were willing to let old things go, so we did not hesitate to change the newly adopted if we found that they did not suit us; and as we gradually came to have a better and truer knowledge of the western civilisation, of its inner spirit rather than its outward form, so also we came back to a better appreciation of what we have inherited from the old, happily not too late for us to attempt to retain what was best in them and blend them with what was best in the new.

Thus it was in our moral teaching. In old feudal days a large portion of the time of the youths of the Samurai class was spent in learning the arts of fencing, archery, use of spears, riding, jiu-jitsu, swimming, etc., which were considered necessary as a part of their military training; while their literary education consisted almost entirely in reading books in Chinese (not necessarily Chinese, but written in Chinese), principally on philosophy and history. These books were studied chiefly with a view to intellectual and moral training; they were taught thereby their responsibility as members of the ruling class, and how to discharge this responsibility; there they learned the cause of the rise, decline, and fall of states and families; there they read of the deeds of great and good men. By such means, with precepts and examples, the spirit of loyalty to their lords and filial piety to their parents, of reverence for the Imperial House and veneration for their ancestors, was inculcated. In fact, in those days learning meant intellectual culture and moral training. With the other classes it was the same, only in a lesser degree, as they would not be called upon to rule over others.

When, in 1872, the first education code was promulgated, there was no special provision made for higher moral training, not because morals or moral teaching was regarded as unimportant, but because necessity for such was not clearly perceived, learning being, as I have just stated, regarded as synonymous with the intellectual and moral training. Just as they were formerly given books in Chinese on philosophy and history, so now young men were often given to read indiscriminately works of Rousseau, Montesquieu, Mill, Spencer, and so on. Effects of such books on the minds of youths who, according to the spirit of the time were apt to look down upon everything old as good for nothing, and eager to climb to the heights of western civilisation, may be imagined. In 1880 we find the Department of Education issuing instructions to the local prefects to prohibit the use of text-books likely to be injurious to the morals or to disturb public order, or otherwise deleterious to education. This was but a negative step; there was felt a need for a basis of moral teaching; we seemed to have cut loose from our old moorings and to be drifting away, no one could say whither. Then

tions of our fore-fathers—i. e., we shall so fulfil duties that we owe to the Emperor and the State and to one's parents and ancestors, for, according to Confucius, 'to keep whole the body that you have received from your parent is the beginning of filial piety; to attain fame and make known your parents is the end of it'. Indeed, I think you must have noticed the repeated references to the Imperial ancestors and to the forefathers, thus: 'Our Imperial ancestors have founded the Empire on a basis broad and everlasting'; 'Our subjects, ever united in loyalty and filial piety, have from generation to generation illustrated the beauty thereof'; and again, 'The way here set forth is indeed the teaching bequeathed by our Imperial ancestors'; and so on. This repeated reference to ancestors is characteristic of our nationality; indeed, it is so stated explicitly in the Rescript itself: 'Our Imperial ancestors have founded..... This is the glory of the fundamental character of Our Empire, and herein also lies the source of our education.'

The relation between the Imperial House and the people, intimately connected with the ancestor worship or the reverence for ancestors, is, indeed, the basis of our education. The very way in which this rescript has been at once received as the true and adequate basis of our moral education, and the reverence in which it is held, show sufficiently clearly the special nature of this relation, which has existed without interruption for over twenty-five centuries, according to our historical records, although our chronology for the first ten centuries can scarcely be regarded as authentic. Our two oldest historical works extant are the *Kojiki*, or *Records of Ancient Matters*, completed in A. D. 712, and the *Nihongi*, or *Chronicles of Japan*, completed eight years later, both being compiled by the Imperial order from the traditions and materials then extant, the older parts being, of course, entirely traditional. Both begin with mythological accounts of the separation of the heaven and the earth; the first coming down to A. D. 628, and the other to 697. According to these traditions, the Goddess Ama-Terasu-O-Mi-Kami (Literally Heaven-Shining-Great-Deity or, we may say, Great Goddess of Celestial Light), who reigned in the Taka-Ma-ga-Hara (Literally the Plain of High Heaven), sent down her grandson (Ni-Ni-Gi-no-Mikoto) to rule over the Land-of-Luxuriant-Rice-Ears, i. e., Japan, with these words: 'This is the land of which my descendants shall be the Lords. Do thou proceed thither and govern the Land. Go. *The prosperity of thy dynasty shall be coeval with heaven and earth*'. I wish to call your attention specially to these last words. You remember that they are quoted in the Rescript; they are words ever present to the minds of a Japanese and continually occurring in our literature. She also gave him a jewel, a sword, and a mirror, which form the three divine treasures of the Empire. Of the mirror in particular she said: 'Regard this mirror exactly as if it were my spirit, and reverence (or worship) it as if reverencing me. This mirror is now enshrined in the Temple at Ise, whereunto tens of thousands of pilgrims flock every year from every part of the country, and to which on every occasion of great national importance the Emperor either goes himself or sends a special messenger to announce the event. In the Imperial palace in Tokyo,

also, there is a shrine, called the Kashikodoko's, or the Sanctuary, where is deposited a facsimile of the sacred mirror, made in the reign of the Emperor Sujin, B. C. 92, when the original mirror was first moved into a separate shrine, lest its sanctity should be diminished by being kept in the same building as the living. Here on festival days the Emperor and the Empress, the Imperial family and high officials do worship to the spirit of the first of the Imperial ancestors. When an official is sent on a mission abroad, he will, after the farewell audience of the Emperor, be made to do reverence here. Again, in every ordinary Japanese household, there is a Kami-dana, or god-shelf, in the centre of which is placed a Taima, which is a part of the offerings made at the Shrine of Ise, and which is distributed thence to every household in the Empire at the end of each year. On this altar are also placed, besides the Taima representing the shrine at Ise, representations of local tutelary deities and other special Shinto shrines and offerings of rice and cake are placed and lights lighted every evening. This Ama-Terasu-O-Mi-Kami, the first Imperial ancestor, is worshipped throughout the whole Empire.

Well, to return to her grandson, sent to rule over Japan, he is said to have settled in the present province of Hyuga, in the island of Kyushu, whence his two great-grandsons sallied forth on an expedition to subjugate the whole land. After several years of hard fighting, during which the elder was killed, the younger succeeded in establishing his authority over a district in the neighbourhood of the modern province of Yamato, and ascended the throne in B. C. 660, according to the *Nihongi*, although, as I said before, the chronology cannot be relied upon. Such is the account handed down to us by the traditions; ethnological investigations alone can determine where the High Heavenly Plain was, whence we Japanese have come.

From this first Emperor, now known as Emperor Jimmu, there has been an unbroken line of descent to the present reigning Emperor. This unique character of our Imperial dynasty, and the fact that we regard all Japanese, with the exception of some few naturalised Koreans and Chinese and subjugated Ainos, as descended either from the Imperial House or from those who came over with it from the High Heavenly Plain, may be considered as constituting the special character of our nationality; our nation is, as it were, one family, of which the Emperor is the head or patriarch, and it has been so since the first foundation of the Empire. Never, during the whole course of our history, has there been a single serious instance of a subject presuming to attempt to place himself on the throne, and never during that time have we been conquered by a foreign foe. The single occasion on which we were seriously threatened by a foreign invasion, previously to the Meiji era, was towards the latter part of the thirteenth century, when Kublai Khan, having conquered China, sent embassy after embassy for several years to induce the Japanese to accept his suzerainty. But no reply was sent to these messages, which were regarded as insults. On one occasion a large fleet of 150 vessels was sent, and there was a great fighting, in which the invaders by their guns and by

it was that some who did not themselves believe in Christianity nevertheless thought that it should be adopted as the basis of our moral teaching; others talked wildly about a new religion; some were for returning to the old teaching of Confucius. But the old standard of devotion to duty, of loyalty and filial piety, had been maintained by the older men, and home influences were powerful enough to keep the rising generation in the same path. Gradually, as I have remarked before, we came to the better and truer appreciation of our inheritance from the former days; and when, in October 1890, the Imperial Rescript was issued, we felt that the whole question was settled, and thenceforth there was a firm basis for our moral teaching. It was not anything new; it was a clear enunciation, as the Rescript says, 'of the teaching bequeathed by Our Imperial Ancestors, to be observed alike by their descendants and the subjects, infallible for all ages and true in all places'.—*The Nineteenth Century*.

OUR EXCHANGE.

Moral Instruction in Elementary Schools.

In his address to the Moral Instruction League, Sir Charles Warren threw out an excellent suggestion which would assist in the task of improving the character of elementary school children. He pointed out the necessity of interesting parents in the education of their children, but did not sufficiently emphasise the point. This is an excellent idea, but the difficulties in the way are insurmountable. It is in this that lies the real cause of the defects which called the League into existence. It seems to be often forgotten that the child spends but five hours of the day in the school; that the child of school age is most impressionable; that once he leaves the school buildings, he is at the mercy of any influence which may come in his direction. It is to this that attention should be directed. Moral degeneration is not to be glibly accounted for by pointing out that moral training does not figure in the curriculum of the elementary schools, or as a member of an education committee in the north of England put it on a recent occasion when he was outraged by some moral delinquencies of elementary school children, "the A B C of morals must be taught in the elementary schools." Here, then, are children exposed to filthy environment with the streets for their playground, in the midst of all the squalor and misery of the slum, and then complaints are made that the education imparted in the elementary schools has had no effect in reforming the lower classes in the last twenty years.

That there are shortcomings in the elementary curriculum cannot be denied, but the absence of moral training, as such, is not one of these

One has but to compare, however superficially, the secondary and elementary schools to see wherein, so far as the school is concerned, the defects lie. The most obvious difference is the provision of school buildings. It is just in the heart of slumland that our worst primary schools are situated. They are badly ventilated, badly lighted, badly equipped, and in many cases not provided with a playground. The walls are bare and the windows very often dirty. No attempt is made for the few hours that the child is compelled to be away from home to put him in brighter surroundings, which might influence him to desire cleanliness and brightness outside school.

In the next place, the great difference is the size of the classes. If any value is to be attached to the personal influence of the teacher, it is ridiculous to saddle him with classes so large that he must necessarily come to be regarded not as a guide and friend, but as a drill master and tyrant. A teacher cannot enter into those personal relations which cannot but serve to improve a scholar's character, if his attention is to be distributed over large numbers. At best he can pick out a few scholars here and there. On these his influence may be excellent, but he lays himself open to the charge, so frequently heard in elementary schools, of favouritism, and this has a contrary effect on the rest of the class. No teacher can successfully influence his scholars if he has to handle more than thirty. Contrast this with classes of fifty and sixty which prevail in many parts of the country.

Nor can the teacher approach his pupils through the medium of athletics in the elementary schools. Last year the Board of Education recommended the introduction of organised games in the elementary schools. The suggestion was excellent, but only so far as the oldest scholars were concerned. Children under twelve tire easily and do not enjoy organised games for long. For these a good romp is more suitable, even though they must immediately after be subdued to order in the class room. But admitting the need of games for part of the school, where is any provision made for them? In some towns a few hours per week are set apart for athletics in the public parks, but this privilege is necessarily limited to a few schools in the neighbourhood of such parks. In many cases where there are play grounds they are too small to be of any use for the purpose under discussion.

In the curriculum of the elementary school there is one grave defect to be noticed, and that is the complete neglect of the formative qualities of history. Not that scholars in the secondary schools are yet obtaining the benefit which they should from this subject, but at least more of it is taught and at present is often taught intelligently. In the elementary schools, so much time is spent on writing and reading as separate subjects, and a good deal more time than necessary on Arithmetic, that history is

their superior tactics caused great havoc among the Japanese army; but the Chinese general was wounded, and a heavy gale arising the invaders could not follow up their advantages. Taught by experience, the Japanese spent the few years of respite they had in building a line of fortresses along the coast of Kyūshū for some hundred miles; and when, in 1281, Kublai, exasperated by the stubborn attitude of the Japanese and bent seriously on conquering them by force, sent a large force of 100,000 soldiers, together with a contingent of 10,000 Koreans, they could not effect a landing on the mainland for more than sixty days—that being the tactics adopted by the Japanese—until finally, a heavy autumnal gale arising, the whole Chinese fleet was scattered, and those who survived the tempest were killed by the Japanese, so that it is said that only three men out of 100,000 escaped to carry the tale to China. This is spoken of popularly as Ise-no-Kami-Kaze, or the divine gale of Ise, it being supposed that the goddess sent the tempest to protect the land governed by her descendants.

Among the 122 Emperors from Jimmu to the present sovereign there have been many specially distinguished for their prominent virtues, for their good administration, for their military prowess, for their literary taste, and so on; but we may say that there was none who was not animated by a high sense of responsibility as the ruler of the land and by the love of the people entrusted to their care. And the people have always regarded them with peculiar feelings of reverence and loyalty. It is true that their power was usurped sometimes by the Court nobles, and afterwards, during the last 700 years previous to the restoration of Meiji, by the military class, who practically ruled the land. Certainly, Samurais owed their loyalty in the first instance to their chiefs and so, also, the common people to the lords of the land; but even during this period the Imperial House, devoid of any real power as it was, never failed to receive reverence and veneration, not only from the people in general, but from the military chiefs themselves. Only the Emperor could bestow Court ranks for official titles, which though nominal, were much coveted. Many other circumstances also could be cited to show this attitude towards the Imperial House.

This reverence to the Imperial House is intimately connected with the ancestor worship. Our primitive Shintoism, before the introduction of Buddhism and Philosophy, so far as can be gathered from the above mentioned *Kojiki* and *Nihongi*, was pre-eminently worship of ancestors, together with some admixture of nature worship; already in the fifth and sixth centuries the great shrines at Ise, Izumo, Atsuto, etc., erected for the worship of deified ancestors, were in existence. These gods were supposed to be guardians of the land, and on important state occasions they were consulted or their protection was specially asked for. Towards the end of the sixth century Buddhism and Chinese civilisation began to be introduced, at first through Korea, and then directly from China. It was not the common people who became first converts to the new religion, but the Imperial Court; and there ensued a fierce struggle between the conservative party, who maintained that the worship of foreign gods would anger the old gods of Japan

and bring calamities on the land, and the party of reform, who were for adopting the new and, as they thought, superior civilisation. This was not a religious struggle in the sense that would be usually understood by the term; it was rather a political struggle between the two powerful Court parties, one progressive and the other conservative. Finally the Buddhist party was victorious, owing to the aid of the famous Strotoku Taishi, the regent and heir presumptive to the throne, a great Chinese scholar, deeply imbued with the spirit of Buddhism, who saw in it and in Confucian ethics the best means of elevating the moral condition of the people; he is still regarded, as his name indicates, as a prince of the most saintly virtues. Most of the subsequent Emperors and the Imperial family and the nobles of the Court were zealously in favour of the new religion; but it is to be borne carefully in mind that this zeal for Buddhism by no means precluded their worshipping at the shrines of their ancestors—i. e., of the ancient gods of the land. Indeed, these were several times consulted by the Court whether the new religion should be introduced or not. Thus, during the regency of the Prince Stroken, just mentioned (597—621) while on the one hand laws and orders were issued enjoining people to embrace Buddhism, and encouraging the erection of Buddhist temples, on the other hand, a Rescript was issued insisting upon the reverence being paid to the ancient gods; and the prince with the whole Court, is said to have held a high festival in their honour; and the same Prince, in conjunction with the head of the Buddhist party, Soga-no Umako, was the first to have the traditions of old Japan taken down in writing and compiled, although, unfortunately, this compilation was lost afterwards at the time of the downfall of the Soga family. The Emperor Stromu (724—748), one of the most devoted followers of Buddhism, sent messengers to the shrines at Ise and Usa when the Koreans sent insulting embassies and on one occasion, when the land was desolated by a plague, went himself to Ise and sent messengers to other important shrines to pray for the abatement of the scourge. There were many able Buddhist Priests at this time, and in order to reconcile their religion with the spirit of ancestor worship, which they could not hope to overcome, they maintained that the ancient gods (i. e. the ancestors and great men) were but different impersonations of Buddha, that appeared to lead the people of Japan to the ultimate goal of Buddhism. It is recorded that when Emperor Stromu, whom I have just mentioned as a devotee of Buddhism, was about to erect a temple to the Daibutsu, or the great Buddha that visitors to the Nara, the ancient capital of Japan, may still see, he sent a Buddhist priest to the shrine at Ise to ask the will of the Goddess, who returned, saying that the goddess was propitious for the Rashanabutsu, that the image represented was none other than the goddess herself; not satisfied with this, he sent a noble of the Court for a confirmation of this.

Gradually the Buddhist priests elaborated this doctrine of the impersonations and there being many able men among them, they gradually appropriated almost all the Shinto shrines and became ministers at these shrines, as well as at pure Buddhist temples. Thus in Japan Buddhism became associated with the ancestors

crowded out, and the short period left is given to such history as may be obtained from the numerous Historical Readers. No subject intelligently taught can better bring out what is best in a pupil; no subject can be more character forming, and yet it receives but scant attention. The same remarks would apply to English literature. If less business arithmetic and writing were taught, not on formal lines, but as a means, some valuable time could be gained for these far more valuable subjects. It is here that the branch of the curriculum so much talked about, and so unproductive in America, can be taught—namely, civics. Far better to give concrete examples of good citizens and their career than to lay down rules and definitions as unintelligible as they are unprofitable. You may preach the virtues to children, and they may talk glibly about them, but unless they are compelled to practise them or see others practise them, nothing is gained.

But no matter what may be done in the school, assuming that all the improvements adumbrated above to be introduced, no amelioration can be hoped for unless there move alongside with this an improvement in the social conditions of the parents of the poorer-class children. The question cannot be narrowed down, nor can the burden be laid on the school. It is, after all, the parent who must be educated. If the self-respecting citizen cannot tolerate the undesirable immoral children of the elementary school, it is not the school that is to bear the blame. The home influence of the more fortunate school child must always be borne in mind in a comparison with the poorer child. A better home, less public houses, better and more liberal allowance of playgrounds in and outside school must first be provided, and then, if the improvement in the moral character fails to be maintained, blame the teacher. And in this connection may be mentioned the excellent work done among children of a lower class than those reached by the Lad's Brigade, that is, the work of Lads' Clubs. Here is amply illustrated the effect of personal influence of the managers by personal contact with each boy, the effect of clean and bright surroundings, of rational amusements, of restraint. The street is the ruin of the younger generation, and it may be hoped that the State may some day undertake to subsidise on a large scale Lads' and Girls' Clubs which may serve to keep young boys and girls off the streets.

Just as the dirty scholar will not be cleaner after numerous lessons on the value of soap, so the morally bad scholar will not be improved by a whole alphabet of morals. Only the habit of moral action, of seeing and hearing of others acting uprightly, will bring any improvement, and to effect this the work of a Moral Instruction League cannot be confined to schools.—*School.*

The effect of Handwork on Mental Development.

A very interesting lecture on the above subject was given in connection with the London Branch of the Educational Handwork Association at the Sociological Society's Rooms by Dr. J. W. Slaughter. The chair was taken by Dr. Kimmins, the president, who, in introducing the distinguished lecturer, said that one reason why he had accepted the presidency of the London Branch of the Handwork Association was his intense desire to see handwork built on a better scientific basis, and to this end he heartily welcomed the lecturer, who had made a thorough and exhaustive study of this subject on the other side of the Atlantic.

Dr. Slaughter commenced by saying that he appeared before them, not as a hand worker, but as a psychologist, and he hoped his audience of practical teachers of handwork would forgive him if he appeared to them to say things utterly stupid from their own particular standpoint. It was a feature of the present age that they had made the discovery of a muscular system, and he thought that the whole trend of the times was against the hitherto all-prevalent intellectualism in education.

They all knew that Locke's idea was that the mind was a closed cellar, which had certain windows through which ideas and conceptions could be admitted.

The mind was regarded as a mere receptacle, and education was looked upon as merely a matter of acquisition. It consisted in the pouring in of ideas into this mental receptacle. We are now seeing the last remains of this philosophy.

Now was the age of muscles—of action. We have now no respect for the men who *do* nothing. We rather respect a man for what he *does*.

We now want no second-hand knowledge, but see the necessity of acquiring it at first-hand.

The old idea of educational policy was that of *giving* or imparting knowledge. This was a fallacy. The object of education was the formation of character, and this could best be done through the emotions and will, and not through the intellect. It seemed to him an appalling fact that out of the millions of London a Handwork Association such as this could only muster some seventy-five people.

He believed in the system of Froebel, or rather in the spirit in which that master's great ideas were conceived; but he could not agree with the hard and fast rules, the strict adherence to blocks and gifts, which tended to produce an arid educational desert, to crush out individuality, and to turn out a machine-made article. Kindergarten deserted the child at six years of age, but it should be closely followed up by educational handwork.

Without activity we should get no mental development. A baby is bombarded with impressions from the outside world, which are the raw material to be made into mental furniture. We have all seen a baby sitting on the floor tearing a newspaper to shreds. This may seem a very foolish proceeding to an adult, but it was a very important experiment for a child. It afforded exercises in the impressions of sound, sight, and feeling. This principle of activity was universal as a means of education. Man thinks in terms of what he *does*, and not according to the rules of logic.

A costermonger views the universe from a costermonger's standpoint; a prime minister sees it from his more elevated standpoint; an engineer's outlook is from the point of view of, say, the building of a bridge, and so on. Biology was a subject which was generally taken up after a university career, but in his opinion a *child* should begin to be a biologist. Darwin was a biologist, because as a boy he made his trousers pockets into a museum. A child who has no live pets would never become a biologist. We must lay the necessary foundations in youth. Newton and Watts became distinguished physicists; they began their distinguished career by making mechanical toys in their childhood.

In considering the importance of activity, we must remember that the muscular system was about three-quarters in weight of our bodies. The study of our muscles was not sufficiently regarded. The finer muscles should not be used in early childhood—thus needlework and fine chequer-drawing should be abolished in our infant schools. There were two kinds of muscular activity—that of the labourer, whose mind and hand were heavy; and that of the skilled workman, who used the finer muscles, which produced nervousness in movement. We might divide muscular activity into three divisions—(1) Industrial education; (2) manual training or handwork; and (3) athletics. Industrial training was a necessity for many individuals, but he wished to give a warning as to the danger of too early specialised training. During the early development of the child speciality was a misfortune.

From the standpoint of the psychologist, the manual training in England seemed to him too limited both in method and material.

There was a great danger in the tendency to systematise too much; it would not do to encourage the development of non-educational handwork to substitute industrial training for educational handwork.

There was a tendency in America for the lads to be taught to use the saw, hammer, and plane merely for the sake of being able to use these tools with facility. It was a pitfall they had to avoid—the acquisition of knowledge as an *end*, and not as a *means to an end*.

In his opinion, for instance, such a subject as grammar should be acquired incidentally while doing something else. We must also bear in mind that the constructive power of children must necessarily be crude, so as to be in relation to their mental development.

The mind does not develop according to a strictly logical scheme, though undoubtedly there were various characteristics at different ages. Hints may be obtained by watching the play of children.

In these days of complicated machinery the simple and elementary rudiments of handwork were lost sight of. To a great extent the art of hand-weaving and the hand-made pottery of the ancients were lost arts. In his opinion it was a mistake to confine handwork to one material, such as wood, and to one occupation, such as carpentry. Why not give a child other materials, such as clay, soft rubber, and wire, and thus introduce a welcome variety?

And why not give him practice in gardening and the rearing of pets? A child wanted a variety of media in which to express itself. Another point was, that the child might to some extent be allowed to have a choice in the kind of work he does.

He knew a teacher who had permission from the authorities to try such an experiment for one year. He allowed his boys to suggest what they would like to do. The only condition he laid down was, that once a thing was undertaken it must be persevered with until finished. The result was said to be simply astonishing.

Boys are very interested in making simple machines, such as mechanical toys. It was a primal instinct for boys to make a bow and arrow. Why not let them make such a primitive weapon—and use it when made?

Also, why not use organised play as a means of education—not the silly games they generally saw in the playground, but properly-organised games having a certain end in view?

In the school of the future the building would form but a small part; there would be no teachers of Latin and Greek, but there would be teachers of *play*, by this means assisting and carrying out various kinds of activities. This movement, when fully carried out, would supplant athleticism as such; there would be no need for it.

That venerable superstition attributed to the Duke of Wellington about the battle of Waterloo being won in the playing fields of Eton had done a lot of harm; for though he believed in athletic sports as helpful exercises, he did not consider them as helping to form useful mental qualities. Athletics were useless if athleticism was to be regarded as an *end* in itself.

The educational powers of activity were shown by the play of young animals: the power of the kitten, the lamb, and the goat were developed by play.

At the close of the lecture Dr. Kimmins invited any present to join in a discussion of the various interesting suggestions that had been made.

Mr. Barter, the Inspector of Manual Training under the London County Council, agreed with the lecturer that the mind was influenced by the occupations which individuals follow, heavy manual labour producing minds of dull and heavy temperament, while light occupations helped to produce minds of an artistic temperament. He would refer to the difficulty of the manual training instructors in finding some material common to the capabilities of the boys. He considered clay and wood fulfilled the required conditions best, the clay being used to educate delicate perceptions of form. He would place wood before metal for general educational utility, the varieties of different kinds of wood both in hardness and texture being very great. The difference in the extreme softness of pine and the hardness of oak was a case in point. In the oldest of crafts the savages made their weapons of flint and wood. The saw was also a very ancient tool, and was used very much then as it is to-day.

He agreed with the lecturer also that there should be no trend in school towards industrial training; this was outside the school curriculum, which should deal more with the educational side of manual training.

Mr. Barter was followed by a teacher, who said that while he could make no claim to be a teacher of handwork, in his opinion the educational side of manual training was being lost sight of. He would like to see more co-ordination of the school subjects, so that a lad who read in his history lesson of a boat or canoe should be allowed to try his hand at making one. Thus in time a series of models might be made which would illustrate this and other branches of education. But when he asked for this to be done, the invariable answer was, "No time." He did not consider the best use was made of the manual-training centres.

A manual-training teacher who joined in the discussion said that he quite appreciated the point mentioned by the previous speaker, and mentioned that in his visits to America he found that the organisers were very sympathetic in this direction, and the children were encouraged to produce articles suggested by themselves. This making of something for himself was a great incentive to a pupil. He thought that even the softest woods were too hard a medium, and said that he should like to see plaster, soft rubber, clay, and wire used instead.

Another point brought out in the course of the discussion was that the various materials used were not blended sufficiently. The woodwork was done in one room, the modelling in another, the metal work in a third. Why not try to combine these materials, and allow the boys to make toys, apparatus, etc., by a combination of different substances.

Another point of view was introduced by a teacher, who said that if handwork was to play the important part in education that he thought it ought to, many of their pupils, those dull boys who used up four-fifths of the teachers' energies and all in vain, those who were impervious to ordinary methods of instruction, should spend most time in handwork centres, so that on this side they might develop their sluggish and dormant faculties. Instead of one half-day a week, which was absolutely useless, he advocated five half-days.

Mr. Binns wished to draw attention to the point, that if a too stereotyped form of training was bad for the pupil, what must be its evil effect on the teacher engaged every day in the week. He wished for more liberty of scope for the teacher, for permission to depart from the systematised course whenever he thought it desirable. Get teachers interested in the work, and then give them liberty to teach as they felt it best for their pupils.

Dr. Piggot said that if education in the past consisted of instruction, he thought that manual training as now given was one of the worst forms of instruction. Modelling and drawing should be introduced into our schools before manual training in wood. We were getting a little more practical in our school work, and we now have practical geometry and mathematics. Though we ought to take a broader view of education and allow more freedom to the teachers, system itself was not an evil; if we had no system there would be chaos. Any good system should be an indication of what *may* be attempted. He again wished to emphasise the principle that educational handwork is not a *subject of instruction*, but it should be *the* means of education. Activity should be introduced wherever possible.

Dr. Slaughter in his reply noted that there was a general agreement among them for more freedom and elasticity. In his opinion every system should leave a margin for the individuality of the teacher. Else why have a human being at all for a teacher; why not use an automaton or a phonograph? We were now in a transitional stage as regards education, and no one could say what the future may be.—*The Practical Teacher's Art Monthly*.

The Madras Educational Exhibition.

The Educational Exhibition held at the Senate House from the 24th to the 31st of this month, the credit of whose conception and successful management is due chiefly to the enterprise and energy of Mr. A. Mayhew was in every way a splendid success. It is certainly a unique event in the history of South Indian Education, and will, we have no doubt, have a quickening and stimulating effect on the thousands of teachers who came from every part of the Presidency to attend the exhibition. There were also many educational visitors from Baroda, Mysore, the Punjab and Travancore; almost all the important educational officers of the Presidency attended and there were some distinguished visitors such as the Dewan of Mysore and the Rajah of Vengatagiri. Nor was the interest of the lay public less keen. From morning to evening there was a constant stream of visitors who inspected with intelligent interest the various exhibits thus brought together. A number of very thoughtful papers on important educational topics was read, one each evening of the exhibition, which we hope to publish in subsequent issues. We reserve for our next issue a detailed account of the exhibits and a list of those which won prizes in special recognition of their merit, we publish below the very thoughtful and suggestive speech with which the Hon. Mr. Sivaswami Aiyar inaugurated the Exhibition and also some extracts from the report of the committee read at the close of the exhibition, which explain the aim and scope of the exhibition and also attempt an estimate of its educative value.

Hon. Mr. Sivaswami Aiyar's Address.

MR. CHAIRMAN, LADIES AND GENTLEMEN :—The Exhibition which will be opened this morning is an event of great significance in the history of education in this Presidency, and its significance is enhanced by the circumstances that it owes its conception and organisation not to the Government but to a non-official body. Private effort is one of the important agencies for the extension of education in this country. In a few days the University will have completed its fiftieth year of existence, and it would be a matter for surprise if the University did not succeed in awakening the minds of teachers to the need for organising measures for improving the quality of the education that is now imparted in our schools. In this country as in others there has been a wholesome discontent with the methods of education pursued and an earnest desire to remove defects and adopt more rational and scientific methods. It is only in recent years that Educational Exhibitions have been held even in foreign countries and their value recognised as a means of reform in methods of teaching. That the idea should have been taken up in earnest by the teachers in this Presidency is further proof, if any were wanted, that unmerited as the reproach was of the Presidency being benighted, it is still more unjustifiable at the present moment. An Exhibition like this, which is

intended to collect specimens of educational appliances and specimens of practical work done by the teachers and pupils could not have been thought of at the time when our University was started. It is entirely the outcome of the changed conditions of life which bring home to us the importance of education in those branches of knowledge which are popularly called science and of the growing appreciation of the value of scientific methods in education.

So long as preponderance was given to the literary element in education and the claims of science were not adequately recognised, there was neither necessity nor scope for any educational Exhibition. There would have been no need for any collection of educational appliances when few appliances were required or used for purposes of education. The battle between the champions of literary and of scientific education is fortunately a thing of the past, and the share allotted to instruction in science in our Schools and Colleges is now more or less dependent upon the available supply of funds and teachers. Important as teaching in science is in other countries, it is an imperative necessity in this country. The economic regeneration of the country can hardly be expected to be brought about, unless sufficient stress is laid upon the teaching of science in Schools and Colleges. From the higher point of view of national culture, also, the importance of scientific teaching cannot be exaggerated. From the earliest times the favourite bent of the Hindu mind has been towards introspection and metaphysics and a neglect of the study of external nature. We have been a nation of philosophers, but at the expense of a knowledge of external nature . . . The great need of the time is, therefore, to impress upon pupils and teachers the value of education in science and to create the habit of observation and interrogation of nature. The new regulations with regard to courses of study which have been passed by this University cannot be accused of overlooking the claims of science. I have asked some of the Science Professors in Colleges, how it was that after so many years of work in the teaching of science they had failed to create in any large or even fair measure in the minds of their pupils a love of observation and research and the habit of accuracy, and whether they were not themselves responsible for it. I have been told, in reply, that the causes of the failure were the baneful influence of the examination system and the omission to cultivate powers of observation during school life. While it is true that examinations in this country, as in England, have an undue influence upon the minds of the pupils and their studies, I cannot understand why the practical examinations held by the University should be insufficient to eliminate those candidates whose knowledge of science is derived merely from books. As the Science Professors in the Colleges throw the blame upon the Science teachers in the High Schools, it has to be seen whether the teaching of science is properly taught in schools, and if sufficient attention is paid to the cultivation of powers of observation. That the High Schools do not succeed in creating a desire for the study of natural objects or the habit of observation appears to be generally admitted. It is, however, urged by the school masters in defence that the Matriculation curriculum is so over-weighted

that the acquisition of a foreign language and the study of the various subjects put an excessive strain on the intellect and energy of the student, so that he has neither the time nor the energy to cultivate a sound knowledge of elementary science. On the other hand, considering that the school course, elementary and secondary, now extends over a course of ten years and that graphic methods of teaching are available even in such abstract subjects as Mathematics, it seems to me that it is quite feasible to make the instruction in science and other subjects a thoroughly efficient intellectual discipline and to impart a great deal more of useful knowledge than is prescribed for the examination . . . If science is not taught in the schools as it ought to be, it must, therefore, be due either to the deficiencies of the teachers or to the deficiency of appliances. The collection of educational appliances which will be on view here should open the minds of teachers and managers to the necessity for procuring all necessary appliances in the way of models, charts, specimens, magic-lanterns, etc. I do not suppose that the cost of equipment with such appliances and with a small museum is likely to be prohibitive. The real obstacle seems to be the want of properly qualified and sufficiently enthusiastic Science teachers. To some extent the qualifications to be secured will depend upon the salaries offered. But it must be remembered that the profession of teaching cannot possibly offer the same pecuniary prospects as some other walks of life and that if the salaries were the only source of attraction, the profession of teaching could not possibly compete for the best talents with more lucrative callings. What is most urgently required for the purpose of bettering the lot of the teacher is to give them chances of promotion by providing them with facilities for transfer from one aided school to another. So long as the teachers' prospects are confined to a single school, they have no chance of promotion except upon the happening of a vacancy in that school, and the chances are therefore extremely few. But if a number of aided schools could be federated for this purpose, the chances of promotion would be greatly improved. The fact that this Exhibition is due to the efforts of teachers themselves shows that there are elements of promise even in the existing conditions. It is to be hoped that advantage will be taken of exhibitions like the present by the Headmasters and teachers of schools to observe improvements in the methods of instruction and introduce them in their own institutions. Let us hope that this Exhibition will be followed by others on a large scale and better organised, and that they will be the means of reforming the methods of instruction now in vogue in schools and placing them on a rational basis.

Committees Report.

In organising this Exhibition the Committee have tried to keep before them the following aims.

(a) The bringing together the work done by various schools in various subjects for purposes of comparison rather than competition—in order to give

new ideas and fresh ideals and a wider horizon to those who are responsible for the efficiency of schools. This seemed especially necessary at a time when the tendency of the educational authorities is to give increased freedom to schools in matters of organization and methods and curriculum and to encourage variety and development of new lines adapted to local needs.

(b) The encouragement of more systematic organization of all the details of school work—more thought regarding aims, general principles of instructions and details of methods of equipment, school furniture, &c. This is the particular function of the section devoted to teachers' record of work syllabusses, &c.—but is by no means confined to that section.

(c) The concentration of attention on the training of the hand and eye—whether by the varied kindergarten occupations or by drawing or by any other means.

(d) The encouragement of nature study, the division of the pupil's attention from exclusively literary subjects to the world of nature surrounding them.

(e) The encouragement of similar exhibitions—perhaps on a smaller scale and in special subjects—in all parts of the Presidency with a view to stimulating educational activity.

(f) The bringing together of teachers from different parts of the Presidency for the communication and discussion of new ideas.

To what extent the Exhibition has succeeded in its endeavours—both by the exhibits shown in the hall and the papers relating thereto read in this room it is difficult to hazard a conjecture at present. The succeeding months and years must be our judges. To many it may appear that the Exhibition has been more of a Tamasha—a sight to attract the eye and please the vacant mind than an instrument of real educational value. It is true that the Exhibition has been so large and the crowd of visitors so great that it has been very difficult for teachers to study in detail particular Exhibits or to take careful notes. It has also been found more than difficult to give adequate guidance and instruction to teacher-visitors. These are defects which it would be useless to hide. The Committee would only emphasise the fact that the first duty of an initial Exhibition of this kind was to excite public curiosity, to quicken the educational pulse—to stimulate effort, to point out new channels of activity—to deal with generalities on a large scale rather than with the minutiae of education. It is the work of future local Exhibitions to devote themselves to particular branches.

It has been a surprise to the Committee—a surprise, which was pleasant and at the same time embarrassing—to find the interest of the general public so great. On the first five days there were over 9,226 visitors and the numbers in the following days have been correspondingly great. Possibly it would have been better to have had some charge for admission, yet the Committee cannot but feel that the net result on the majority of the general public even exclusive of teachers has been

profitable. Public interest in education—a quickening of the educational conscience of parents—are important factors in the promotion of educational progress.

The Committee are also conscious that in many cases the aim and purpose of the Exhibits were not sufficiently clear, that not enough particulars regarding Exhibits and their origin were given. For this the exhibitors rather than the Committee are perhaps responsible. But it is not the purpose of this address to apportion blame so much as to point out in what ways future exhibitors may profit by the experiences of this.

While deprecating the occasionally impervious and unruly conduct of pupils and students desirous of attending the Exhibition—the Committee writes at the same time to express their regret that it was necessary to frame strict rules regarding the admission of school pupils and students to the Exhibition. They have acted throughout as far as lay in their power in the interest of teachers and school authorities attending the Exhibition for whom primarily the Exhibition was intended. Those who saw the crowds inside and outside the Senate House on the last three days will realize the need for the stringent measures.

The Exhibition has also been fortunate in attracting visitors from different parts of India. Educational visitors from Baroda, Mysore, the Punjab and Travancore have honoured us by their presence. We have had many distinguished visitors including the Dewan of Mysore, the Rajah of Venkatagiri and the Chief Educational officers in the Presidency. It is hoped that the special classes for the blind and the interesting specimen classes in lace work have been as profitable as they have undoubtedly been interesting. The Committee wish to express their thanks to Miss. B. Forbes and to Miss. J. R. Henderson who have been so helpful in this matter. The exhibit of books for the blind by Mr. Eleazar, Headmaster of the Blind School, Madras, has also been of special interest.

The Committee has been fortunate in securing many most interesting loan Exhibits among which may be especially noticed the exhibit from the School of Arts, the Chingleput Reformatory School, Biological exhibit photographs, &c., from the Teachers' College, Saidapet, a loan collection of stamps from Mr. Devadoss Henry, B. A., Wesleyan Mission High School, Triplicane, and graphic representations with pith models, &c., of scenes from the life of King Dashyanta from Mrs. P. K. Sarma. The set of exhibits sent from Coorg has been of special interest and shows us what advance there has been made in the work and equipment of rural and elementary schools. Special notice is also required for the numerous exhibits collected and sent by or through Mr. J. A. Yates, Inspector of Schools, First Circle, relating both to rural and secondary schools, records of work—syllabuses, &c. The specimen single desk sent from that circle was also full of interest. Most profitable exhibits of school furniture and science apparatus have been sent by Murugappa Maistry of Saidapet and M. Ramasawmy Nayudu of Madras respectively and we rejoice to see signs of genuine local enterprise in these important branches. Mr. J. H. Stone, Principal, Presidency College and Mr. J. R. Coombes,

Deputy Superintendent, Chingleput Reformatory, have sent interesting exhibits of drawing and design work in English schools. With regard to the special English exhibits collected for use by the authorities of the Board of Education in England a special section in the printed report of the exhibition will be devoted to the subject. Let it suffice here to offer our cordial thanks to the various local Educational authorities and especially to Mr. Trench, Assistant Director of Special Reports, who have sent us so good a collection and to add that in three directions these exhibits have been of special value; (a) in showing us new modes of drawing and in raising our ideals in this subject; (b) in drawing our attention to the possibilities of nature study and to its connection with drawing, manual occupations and composition; (c) in showing us how carefully and profitably syllabuses of work may be prepared. The specimen note books of pupils in the various subjects have also been of the greatest value.

MADRAS TRAINING SCHOOLS.

PLANS FOR THEIR ORGANISATION.

THE Government of Madras have issued the following Order directing the Director of Public Instruction to submit detailed proposals for the formation of training schools in this Presidency for the training of Upper Primary teachers:—

With his letter No. 5187, dated the 3rd August, 1904, the Director of Public Instruction submitted proposals for the reorganisation of the training schools for masters in this Presidency. The proposals were—(1) that the course of study in primary training schools should be remodelled so as to include general studies as well as training in the art of teaching, (2) that the course in the primary (but not in the lower secondary) schools should be lengthened from one year to two years, (3) that the monthly stipends in the two grades of training schools should be raised from Rs. 5 to Rs. 6 and from Rs. 6 to Rs. 7, respectively, and (4) that a cadre of teachers should be provided for the practising schools attached to the training schools of all grades.

The extra cost involved in the extension of the course of primary students from one to two years and in raising the rates of stipends of primary and lower secondary students from Rs. 5 and Rs. 6 to Rs. 6 and Rs. 7, respectively, was estimated at Rs. 40,000 per annum, while the additional expenditure resulting from the reorganisation of the establishment of training schools and from the provision of a cadre of teachers for the practising schools was estimated at Rs. 29,393 per annum.

The Government of India, while approving the action of the Madras Government in taking in hand the improvement of the training of primary teachers and while accepting the views of this Government in regard to the need for increasing the stipends, suggested that for this purpose a limited number of large and well-equipped normal schools should be established in which the pay of the teachers should be much higher than it would be in any of the existing schools when reorganised under the scheme proposed, that the minimum qualification for admission should be the attainment of the lower secondary standard of education and the course of training should be a two years course; and that the system of training in these institutions which they described as the "main system" should be supplemented by a subsidiary system of training to provide the masters for schools where the salaries paid were insufficient to attract teachers trained in the new higher grade training schools above referred to.

This Government, however, pointed out that what the Government of India suggested as a subsidiary system of training must for the present remain the main system, that the scheme submitted by this Government was a modest scheme which applied only to primary students and aimed at improving the training of teachers whose salary would only in exceptional cases exceed Rs. 10 per mensem and was intended as the first instalment, and that schemes for the reorganisation of schools for the training of upper secondary and lower secondary students would be submitted in due course.

In view of the objections which the Secretary of State has raised to the submission to him of schemes in a piecemeal manner, the Government of India found it difficult to recommend the scheme of this Government for sanction. They attached great importance to the establishment of some thoroughly well-equipped training schools for students who had passed through a secondary vernacular school and who would be qualified after training to take charge of Upper primary schools. Dr. Bourne, who was consulted in June, 1906, as to the carrying out of the above suggestion of the Government of India, considered that the question of establishing schools for training teachers of upper primary schools might wait for two or three years by which time it might be possible to see clearly what general reorganisation of training schools would be desirable. But in view of the great importance of the training of the upper primary teachers, the Governor in Council on further consideration is of the opinion that action in this matter should no longer be delayed.

The Director of Public Instruction will now be requested to submit at an early date, after such consultation with his Officers as he may see fit, detailed proposals on the organisation of normal schools for the training of upper primary teachers.

The following are the main points to which attention should be directed :—

The Classes of Teachers to be Trained and the Schools for which they are to be Trained.—As there do not exist in this Presidency many, if any, secondary vernacular schools, properly so called, the class of students referred to by the Government of India is not available. Nor does it appear that there are at present any higher elementary schools which answer to the upper primary schools referred to by the Government of India, for which these teachers are to be trained; but such schools will be established as a result of the introduction of the new Educational Rules, and the students who pass out of them will be available for training in the proposed new training schools and will be employed in the higher elementary schools. In the meantime, it may be considered whether the minimum qualification required for admission to these training schools may not be fixed as the Matriculation or the Upper Secondary Examination.

The Number and Distribution of these Institutions.—In the Provinces it is understood that the normal schools of the kind in question are established at the headquarters of Inspectors. If this precedent were followed, there would be required in this Presidency, assuming that two extra Inspectors will be sanctioned, there are at present three upper secondary training schools, besides the upper secondary sections of the Saidapet and Rajahmundry Colleges, and fifteen lower secondary and eleven primary training schools. It should be considered how far these training schools can be adapted to the new organisation and whether all or any of them should be reorganised, abolished or absorbed. The scheme to be formulated should also embrace the training schools for mistresses, and should include proposals for the complete reorganisation of all the existing training institutions.

The Staff to be Employed in these Institutions.—The headmasters should be men of superior attainments and with special qualifications for the work and the Government are disposed to think, as at present advised, that suitable men would be best secured by including the appointment of headmaster in the cadre of the Provincial Educational Service. The proposal, if finally approved, would require the sanction of the Government of India, and the Governor in Council would be prepared to make the requisite recommendation for the addition of eight men to the ninth grade of that service.

Another point which arises in this connection is whether separate schools should be maintained (i) for the training of the upper primary (higher elementary) teachers whose minimum qualifications may for the present be the Matriculation, the Upper Secondary or other equivalent examination; and (ii) for the training of teachers of similar qualifications employed in the lower classes of the Secondary schools; or whether one set of training schools should be maintained, each school having two separate sections, one for the training of higher elementary (vernacular) teachers and the other for the training of the teachers of the corresponding classes in the Secondary schools (English).

Finally the financial results of the proposals made should be worked out; it being understood that the students' course will be lengthened to two years.

CALCUTTA UNIVERSITY.

POST-GRADUATE LECTURES.

THE first fruits of the efforts to bring the Calcutta University into line with modern Western ideals and to render that institution something more than a mere examining machine is seen in the important notice in which it is announced that under the new Regulations the Governor-General in Council has been pleased to sanction the appointment of the undermentioned gentlemen as "University Lecturers" for a term of two years. The lecturers will deliver lectures on and conduct classes for research or advanced work for post-graduate courses of study in the subject or subjects in which they are specially appointed. These lectures and classes will be open to all graduates of Indian Universities who have taken Honours in that particular subject and also to other persons with the permission of the lecturer. The scale of fees will be notified later on. The lectures will be delivered in the College to which the lecturer belongs or such other place as may be determined on between the Syndicate and the lecturer. The following are the lecturers in the various subjects.

English—Mr. H. M. Percival, M. A., Mr. M. Ghose, B. A. *Sanskrit*—Pandit Satyavrata Samasrami, (Veda : M. A. Paper I; and Group B, Papers V—VIII); Mahamahopadhyaya Pandit Haraprasad Sastri M. A.,—Paper IV (Essays); Group I. Papers V—VIII (Epigraphy and History); Mahamahopadhyaya Pandit Kamakyanath Tarkavagis—Paper III (c) (Sabda-Saki-Prakasika); Group F, Papers V—VIII (Nyaya and Vaisesika); Group G, Paper VI (a) (Nyaya); Pandit Prathamathath Tarkabhushan—Groups D and E, Papers V—VIII (Vedanta, Sankhya, Yoga); Rai Rajendrachandra Sastri, Bahadur, M. A., (Nyaya); Babu Nrisinhachandra Mukerjee, M. A., B. L.,—Group A—Paper VIII (Rhetoric and Prosody); Pandit Bahuballabh Sastri,—Paper II (Siddhanta Kaumudi); Pandit Thakur Prasad—Paper II (Siddhanta Kaumudi) Groups D and E, (Vedanta, Sankhya, Yoga); Pandit Bhagvatkumar Goswami Sastri, M. A.—Group A, Papers V—VIII (Literature). *Pali*—Mr. Dharmanand Kosambi. *Arabic*—Mr. R. F. Azoo. *Comparative Philology*—Mr. Harinath De, M. A. *Mental and Moral Philosophy*—Mr. H. Stephen, M. A. *History*—Mr. M. Prothero, M. A. Mr. J. N. Dasgupta, B. A. *Mathematics*—Mr. C. Little, M. A. *Physics*—Dr. J. C. Bose, C. I. E., M. A., D. SC. Mr. C. W. Peake, M. A. *Chemistry*—Mr. J. A. Cunningham, M. A. *Physiology*—Mr. S. C. Mahalanabis, B. CC., F. R. S. E. Captain D. M'Cay I, M. S. *Zoology and Comparative Anatomy*—Dr. N. Annandale, B. A., D. SC.

EDUCATION IN HYDERABAD.

It has been resolved to establish three normal schools in the Dominions, one at the Headquarters and the other two at Warangal in the Telangana Circle and at Aurangabad in the Mahratwari Circle. Trained graduates of ability will be appointed as Headmasters of these Normal schools. They will be assisted by trained F. A's.

In future none but graduates can get Rs. 50 and over. This wholesome rule has been only recently introduced to prevent unpassed candidates from getting high appointments which require efficient men of education and culture. Hitherto even High schools in the dominions have been manned by matriculates and undergraduates. Now the Government have resolved to enlist the services of efficient and experienced graduates so as to raise the standard of teaching in the schools scattered throughout the Dominions.

Primary education has been made free and teachers are being trained for managing schools to be soon established in the remote villages and districts in the Dominions.

Dr. Syed Siraj-ul-Hassan, is an accomplished gentleman who received his education and culture in the famous University of Oxford. He is an enthusiastic educationist. Under his regime we hope to see many a salutary reform effected. He is also a great Urdu scholar having distinguished himself in Urdu and Persian scholarship at that great centre of oriental learning—the Punjab. He is an energetic officer. Supported by men like Messrs. Kale, and V. R. Pillai, he is sure to turn out good work in the near future.

Educational depots are to be established in the various parts of the country for the purpose of supplying books at cost price to the pupils.

The middle school examination will soon be abolished and will be superseded by an examination corresponding to the Upper Secondary Examination of Madras.

The middle schools of the Dominions will be soon transformed into Upper Secondary Schools. Trained B. A., L. T.'s of great experience will be appointed as Headmasters. Hitherto even such Schools as the Chadarghat Government High School have been entrusted to the safe keeping of undergraduates with no educational training whatever. Mr. Gloria, an undergraduate without any great training, who was the Headmaster of the Government High School, Chadarghat, has only recently retired, and in his place has now been appointed a trained B. A., L. T., of vast experience in educational work. Mr. Ross, is the Headmaster of the City High School though he is a Matriculate.

From this the public may learn the vast transformation that is taking place in Hyderabad. Everywhere there is cry for efficiency. Hyderabad pants for efficient men. During the last thirty years the College turned out only thirty five graduates though the College is manned by Europeans chiefly.

Mr. Seaton is not in the Station. His place is taken up by Mr. Sturge who does his work earnestly and conscientiously.

H. H. the Nizam with his usual liberality has allotted a large amount for the construction of buildings for Government Schools. The construction of these schools will be soon taken up, as the buildings used at present are all rented structures situated in inconvenient quarters.

Education in India.

Mrs. BESANT has addressed the following appeal to the London Press on behalf of the Central Hindu College, Benares.

Among the many causes of the unrest in India at the present time, one of the most important is a deep and settled discontent with the educational policy of the late Viceroy. Educated Indians, who are thoroughly loyal to the British Rule, speak bitterly of the way in which Lord Curzon has rendered education so costly as to place it beyond the reach of all but the wealthy, and say with conviction that he has put back half a century the educational clock, and has practically robbed India of higher education.

There is a widespread idea that this policy is intended to keep Indians out of the higher posts in Government service, and to reduce them to a condition lower than that they have long enjoyed. And this idea has been confirmed by the frustration of all attempts to place Indians more on an equality with Englishmen in the educational service. Obviously incompetent Englishmen are given posts denied to Indians as obviously competent, and Lord Curzon's soft words have not availed to hide the harsh facts of his policy.

The discontent is the more dangerous because it is spreading among the class who are traditionally the educated class in India, for learning and wealth are not wedded there, and the educated class is poor. This class cannot afford the high fees now exacted in Government Colleges, yet demands higher education as a right. To place it beyond its reach is to breed a sullen alienation from British Rule, and a resentment against the power which has undermined their own ancient system and, after giving them a taste for English education, now made it too costly for them to enjoy. Colleges which have long helped eager students are menaced with closure, because they cannot quickly raise the tens of thousands of rupees necessary to meet the new demands, and this loss presses itself on the attention of tens of thousands of parents.

One very beneficial result has, however, arisen from this policy. It has forced Indians out of their previous educational inactivity, and has compelled them to set to work to create schools and colleges for themselves. This National and patriotic work had already begun, as witness the Muslim College at Aligarh, the Arya Samaj College at Lahore, and the Central Hindu College at Benares. These are under Indian control, as to their governing bodies, and they all make religion a part of the education given according to their respective beliefs. Lord Curzon's educational policy has given a great stimulus to the desire to bring education more under Indian control, to adapt it to Indian necessities, and shape it according to Indian ideas. In all this there will be no antagonism to England, if she will show some sympathy with these legitimate Indian aspirations, and will not insist on forcing on India the dismal alternative of a rigid, costly and materialistic education or, none at all.

T. R. H. the Prince and Princess of Wales in their gracious visits to Aligarh and the Central Hindu College, immensely quickened the loyalty of the students at these institutions, and the kindly gift of an autograph portrait of the King, sent by the Princess to the Hindu College, evoked an outburst of enthusiasm.

The Mahomedan community has felt deeply the noble action of the English public in raising in the Sudan a Mahomedan College, and nations can thus forge links of sympathy which Governments cannot so readily create. A very much smaller gift at the present time would evoke much gratitude from the Hindu community which regards the Central Hindu College as its own cherished possession, and has already raised for its building and endowing over Rs. 10 lakhs (a million).

The freehold land on which it stands is the gift of an Indian Prince, and its revenue comes from every class of Hindu, from ruling chiefs to petty clerks. It is incorporated under Indian law. But it needs a library to house its nearly, 8,000 books and a museum

for its growing collection of illustrative objects of Indian arts and produce; it has long been my wish that a single building for these two purposes should be erected by the English people, so that it might bear the inscription: "Erected by the British people as a token of goodwill to the Hindu community." I know what that would mean to the Indian heart, so quick to respond to sympathy, and now resentful, because it feels that sympathy is withheld. We build cheaply in India, and £5,000 would cover all we need and raise in the city dearest to the Hindu heart a perpetual memorial of English goodwill. As the representative of the College now in England, I would gladly receive and transmit to the Secretary any funds sent to me for this purpose.

News and Notes.

INDIAN.

DR. THIBAUT, the learned Oriental Scholar, who was recently appointed Registrar of the Calcutta University, has now been chosen a Reader, and will deliver a course of Lectures on. "The Astronomies of the ancient Oriental Nations and their historical connections, with special reference to India," in January next. The following observations of the Vice-chancellor establish Doctor Thibaut's qualifications to treat of this subject.

"Dr. Thibaut is a recognised authority on the subject of the history of the astronomies of the ancient Oriental Nations. His principal publication in this line is the edition brought out by him in collaboration with Mahamahopadhyaya Pundit Sudhakar Dvivedi, of Varaha Mihira's Pancha Sidhantika, a book giving more detailed and important information, as to the history of Astronomy in this country than any other Sanskrit work now known. The publication and interpretation of this text has been a task of quite abnormal difficulty as the manuscripts available were exceedingly incorrect, and no commentaries could be traced as the work had been neglected and apparently forgotten by the Pundits for over a thousand years. A concise summary of Dr. Thibaut's studies in Indian Astronomy is to be found in that part of Buhler and Kielhorn's "Encyclopædia of Indian Research" which deals with Astronomy, Astrology and Mathematics."

Of Pundit Satyavrata Samasrami, who has been appointed University Lecturer on the Rigveda, the Vice-Chancellor spoke as "the greatest living Vedic scholar in Bengal."

There is, says *Capital*, apparently a very substantial demand for commercial education in the Madras Presidency judging from the results of the Madras Government's technical examinations of April last. In the subject of Theory and Practice of Commerce (Elementary and Intermediate grades) the number of successful candidates at the examination amounted to over 300, the majority being "private study" candidates; the Government School of Commerce at Calicut, Pachaiyappa's Commercial School at Madras, with two or three other institutions furnishing the remainder of the candidates. Other "passes" in the examinations of April last were in Book-keeping, Applied Mechanics, Building—Drawing and Estimating,

Shorthand and Hydraulics and Irrigation Works. The fact that more than two-thirds of the successful candidates in the commercial examinations were private students is significant as indicative of the growing interest in commercial education in the Southern Presidency. With a very few exceptions the candidates are all native youths and it may safely be assumed that they are all connected with people engaged in trade and commerce, who are alive to the importance of getting their boys educated in their own lines of business. We doubt if any Province in the country can show the same results in the matter of industrial and technical education as that of Madras, where it has been pursued with thoroughness for several years past.

Government technical scholarships have been awarded to Messrs. P. V. Dandekar and M. N. P. Karup of the Central Provinces, who go to study Mining at Birmingham University; to Mr. P. T. Brugn of Bengal, who goes to study Metallurgy at Birmingham; to Moulvi Obaidullah of Bengal, who goes to study Mining at Birmingham; to Messrs. M. C. A. Bhukanvalu and K. J. Bhat, of the Bombay Presidency, who go to study at the Manchester School of Technology; and to Mr. Ramuni Panikar, of Madras, who goes to study Leather-Working at Leeds University.

By a Notification in the Gazette the Acting Director of Public Instruction has declared that Messrs. K. Sambasiva Rao and K. Hanumanta Rao, students in the Government Training College, Rajahmundry, are unfit for employment as teachers in any Government or aided school or College.

Mr. Glyn Barlow, the popular Principal of the Victoria College, Palghat, has been appointed Registrar of Madras University, provisionally for one year, in succession to Mr. Paterson, resigned, and has assumed charge of his office.

Mr. E. W. Winckler, Principal of the Hindu College, Tinnevely, has been appointed Headmaster of Bishop Corrie's Grammar School, Madras.

On the representation of the Uriya Samaj, Aska, Ganjam, the Govt. have issued orders restoring to the Uriyas the concession of paying fees at half the standard rates in institutions under public management, making the necessary alterations in the Revised Educational Rules.

As a result of the Rajahmundry College *fracas*, and at the instance of the Director of Public Instruction, the Senate has forged the following Damocles Sword to be hung suspended over the heads of ill-conditioned students inclined to imitate their Rajahmundry confreres.

(1) After clause (iv) of Regulation 96 the following to be added as clause (v):—" (v) to take cognizance of any misconduct by any student in a college or hostel connected with a college or colleges, or by any candidate for Matriculation or for any other University examination, brought to the notice of the Syndicate

by a Director of Public Instruction, or Chief Educational Officer of a Province or by the responsible authorities of the college or hostel or school concerned or in the case of a State College in a Native State by the Chief Educational Officer of the State, or in any case by a fellow or the Registrar of the University, or by a Chairman of a Board of Examiners, or a Chief Superintendent at any centre of examination, and to punish such misconduct by exclusion from any University examination, either permanently or for a specified period, or by deprivation of any University scholarship of endowment held by such person or by both." The existing clauses (v) to (viii) of Regulation 96 to be renumbered. The above alterations shall come into force forthwith.

Messrs. H. Malim, A. C. Pranatartihara Aiyar and T. Sankara Rao have been appointed ordinary fellows of the Madras University.

For the teaching of English Mr. J. A. Yates has introduced Otto Jespersen's direct method in his circle, and teachers have taken to the study of phonetics.

It is stated that there are ten Indian students at the Cornell University of the United States studying agriculture, and three of them, have taken the Master's Degree in Agriculture.

THE Government of Madras have sanctioned, subject to certain conditions, a grant, not to exceed Rs. 10,000 towards the cost of providing additional accommodation to the Findlay College, Mannargudy.

THE Tata Institute, appears at last to be making headway. Dr. Morris Travers, the Principal, has gone from Simla to Bangalore, accompanied by Mr. Stephens, the architect of Bombay, who has had all the plans and estimates for the building drawn up. The cost is to be seven and-a-half lakhs. Dr. Travers will shortly return to England to select two professors, for applied chemistry and electrical technology.

Dr. J. C. Bose, C.I.E., the eminent Indian Scientist is about to go to England, in connection with his various later researches and investigations. His stay abroad will last for about two years, if not more, as at present arranged. He has been allowed leave for two years.

Admission into Teacher's College:—Untrained teachers of recognised schools and others who seek admission into the Teacher's College for training next year are informed that they should apply to the Principal for printed forms of application on or after the 15th proximo.

Mr. E. W. Middlemast, Deputy Director of Public Instruction, Madras, has been placed on special duty for two months from the 15th instant in connection with the preparation of the Report on Public Instruction for the Quinquennium ending 1906—07.

THE UNIVERSITY OF MADRAS:—The result of the following candidate who passed the Matriculation Examination held in December 1906, which was withheld for want of his attendance certificate, is now published, the certificate having been submitted by the Headmaster: Second Class. 7046 James D. S. Vedanayagam of C. M. S. High school, Palamcottah.

The following changes have been announced in the Fort St. George Gazette.

Mr. P. P. Braithwaite, Inspector of Schools, Sixth Circle, has privilege leave for fifteen days, with effect from the date of his availing himself of the same in October next.

Mr. U. Raghavendra Rao, Assistant Inspector of Schools, Canara division, has privilege leave for three months.

Appointment.—Captain T. H. Symons, I. M. S. to be a Member of the Board of Examiners, Medical College, and to hold office for three years.

Promotions.—Mr. A. C. Pranatartihara Aiyar, B. A., to act in the Indian Educational Service.

Mr. S. V. Melagiri Rau, to act in the ninth grade of the Provincial Educational Service.

Postings.—Mr. E. W. Middlemast, M. A., Deputy Director of Public Instruction, is placed on special duty for two months from the 15th August, 1907 in connection with the preparation of the Report on Public Instruction for the Quinquennium ending 1906-1907.

Mr. A. I. Mayhew, B. A., Inspector of Schools, Third Circle, to act as Deputy Director of Public Instruction, *vice* Mr. E. W. Middlemast.

Mr. A. C. Pranatartihara Aiyar, B. A., Inspector of Schools, Second Circle, to act as Inspector of Schools, Third Circle, *vice* Mr. A. I. Mayhew.

Mr. G. Venkata Subbarayudu Sastri, B. A., Assistant Inspector of Schools, Guntur-Nellore division, to act as Inspector of Schools, Second Circle, *vice* Mr. A. C. Pranatartihara Aiyar.

Mr. S. V. Melagiri Rau, Sub-Assistant Inspector of Schools, Bellary Range, to act as Assistant Inspector of Schools, Guntur-Nellore division, *vice* Mr. G. Venkata Subbarayudu Sastri.

FOREIGN.

Rudyard Kipling:—A Stockholm paper states that Mr. Kipling has been designated for the Nobel Prize for Literature.

The two largest Public Libraries in Japan, are the Imperial Library with about 500,000 volumes and the University Library, with some 330,000 volumes, both in Tokio. There are altogether about seventy public libraries in Japan and

Tokio in this respect seems to be better off than many European Countries having a much larger population.

THERE has just been set up in the place of honour in the hall of the Natural History Museum, South Kensington the latest rival in the beauty of ugliness to the Toxodon Plateusis and the Dinorcheas Mirabile. It is a skeleton of a Diprotodon, which in the Pleistocene Period, used to skip about the plains of Australia. It was a pouched animal, and in general shape resembled the existing wallaby, but its huge bulk recalled that of the rhinoceros. Professor Ray Lankester states that the animal only dated back to a trifling span of 100,000 years or so, the period immediately anterior to the present race of beasts. Apparently the Diprotodon had several eyes, all of terrifying size, and its teeth were placed on massive jaws.



The Indian Journal of Education.

Vol. XLVII.
Old Series.

SEPTEMBER 1907.

Vol. XV.
New Series

* The Organisation of Elementary Schools.

ARTHUR MAYHEW ESQ, B. A.

A paper on this subject is a fitting conclusion to the Educational Exhibition and the papers read during the Exhibition.

2. A school may possess an admirably qualified and competent staff it may be equipped with everything that is required to assist the staff and pupils; it may have ample and most suitable accommodation. But, unless there is a strong and competent hand to direct and control all the work of all the teachers and a watchful eye to note all the details of administration, the school will be a failure. Machinery however well made and however well adapted must constantly be watched and oiled. This central control—this watching and oiling—is what is implied in the term organisation. In a well organised school all the parts of the Educational machinery are carefully arranged and controlled and oiled so as to produce in harmonious co-operation the desired results.

3. The need for such organisation should be, but is not, sufficiently obvious. A year ago the publication of the present Educational rules which require that the Headmaster of a Secondary school should devote the major portion of his time to organisation rather than to teaching drew from many managers of schools the cry "What will a Headmaster do if he does not teach?" In Elementary schools, where the luxury of an organising Headmaster is as yet unknown, the need of a reminder on this point is even more marked. In the majority of Elementary schools the Headmaster to day is little more than the teacher of the highest class. (Why he should always teach the highest class is a riddle to which there is no answer). And it is more than probable that attempts on his part to check and control the work of his Assistants will be met with decided opposition—either passive or active—on their part.

* This and the two following were read at the Madras Educational Exhibition in August 1907.

4. It is unnecessary to attempt to apportion the blame for this position of affairs. But for the sake of coming to a clear understanding for future guidance it is necessary to point out that the previous rules of the Education Department with their rigid and uniform list of requirements and tests and their uncompromising statement of the work to be done in each standard in each school have been to some extent responsible. When the Department tried to organise the work of each school there was some excuse for the school authorities desisting from the task. Now that greater liberty is allowed in these matters and independent adaptation of means to ends together with greater variety of ends is not only allowed but encouraged, it is at once a duty and a pleasure to point out ways in which this increased measure of independence may be made fruitful. This paper is intended to bring about a review by teachers of existing aims and practices and to challenge independent thought on these matters. Uniformity in the details of practice is not desirable and no attempt will here be made to secure it. To quote—with modifications—the recent wise utterances of the English Board of Education “the only uniformity desired is that each manager and teacher should think for himself and work out for himself the salvation of his school. Freedom implies a corresponding responsibility in its use.”

5. Among the English Exhibits of this Exhibition will have been noted several statements by responsible persons (whether County Council or Headmasters or Teachers) of the course of instruction in schools or classes of schools preceded by a statement of the aim and followed by an exposition of the methods adopted to realise that aim. If I were asked the chief point of difference between teachers in English and in Indian schools I should answer that the former, as a general rule, are conscious or try to become conscious of their aim and can state or try to state the methods employed to realise them, while the latter, as a general rule, reply to any query regarding aims and methods by a reference to the Madras Educational Rules (Edition IV) or to the pages of the Text book which have to be assimilated. I propose to speak first of all therefore of the curriculum and the syllabuses—and, as there is some ambiguity in the use of these terms, it may here be stated that by curriculum I mean the general course of studies adopted in a school and by syllabus the particular course of study (or rather an “abstract” of it) adopted in any particular subject of the school curriculum.

6. *Curriculum*—In determining what subjects are to be taught up to what stage in any particular school the following points obviously require attention :—

(a) The number, the qualifications and the capacity of the teachers, I confess that I speak here in defiance of instructions that used to be scattered broad-cast among countless village schools of varying conditions—of the type “Object Lessons and Geography and Kindergarten should be introduced at once.”—or “At least two Optional Subjects must be introduced.” The days of such generic instructions are passing away. With regard to number it is a sound rule perhaps for general guidance that the fewer the teachers the fewer should be the subjects taught. But let it not be forgotten here that such occupations as Drawing from nature memory or flat examples—clay modelling—leaf plaiting, etc., etc., under a teacher’s general directions, after a good start has been made under his personal guidance, are admirable means for engaging the attention and developing the faculties of the pupils left otherwise unoccupied while the much harassed single teacher is teaching one of his other numerous classes. Whether these should be styled as “separate” subjects is another question. On the other hand it is certain that teachers have hitherto been allowed to waste their time and energies in teaching many subjects requiring their undisturbed attention with insufficient time at their disposal. The main temptation to such a course—results grants for each subject—has now been removed.

The qualifications and capacities of teachers are an even more important factor. Very many teachers who are now devoting separate hours to object lessons for which they possess neither the aptitude nor the necessary stock of knowledge would be more profitably employed in adding time to their reading lessons, where very often more information is more suitably imparted to the pupils regarding the subjects mishandled in these falsely named “object lessons.” The same remark is applicable to Geography, Hygiene, etc. But let us not be taken in by mere qualifications. There are unpassed teachers who know and can impart more knowledge about local plants and crops—or who can maintain and use a garden—far better than the certificated teacher of Secondary grade. The wise manager or Headmaster will watch and study most closely his teachers to discover in them latent possibilities.

(b) The locality and class of pupils must be considered. The Chery Pariah school in a Kurnool village will not demand the same subjects as the school for Brahmin boys in the Kumbakonam Municipality. Of course there is much that is essential and common to all Elementary schools. But there is also wide margin of subjects regarding which it may be said that though they would be of possible use in all schools yet they are far less useful in some schools than in others and cannot in those other schools be allowed to overburden the teachers and pupils at

the expense of more useful subjects. It is more when the syllabus for each subject is drawn up that the needs of the locality and the wishes of the parents require attention. Parents may be not only ignorant of pedagogic matters but entirely illiterate. At the same time it is on their support that the school depends—and if education means from one point of view the equipment of a boy to earn his own livelihood it is not beyond the bounds of possibility that the parent may be able to express a sound opinion on the matter. I am aware that in many cases parents have no wishes beyond the obtaining of a certificate for their children. But their co-operation is a thing for the school organiser to aim at.

7. *The Syllabuses*—When the choice of subjects has been made the next step is to break up each subject into portions which are to be assigned to each class in the school. This involves three other points for consideration.

(a) *Determination of the order in which the component parts of each subject are to be treated.* A discussion of this point would involve endless pedagogic details which would be out of place here. The recently published scheme of studies for elementary schools contains suggestions regarding the proper order of treatment of the parts of each subject. As an example of what is implied above it may be pointed out that, whereas in the old course of studies in Arithmetic the Infants and First Standards were confined to Addition and Multiplication tables while Multiplication and Division were begun only in Third standards, it is in the opinion of many educational experts desirable that the four cardinal processes of Arithmetic should be taken in close connection with one another from the earliest stages. Geography, Hygiene and Nature study are examples of subjects requiring special attention in this matter. Shall each of these subjects be so divided that each portion is only taken once in the school course—or in such a way that each portion is only taken in its elementary outlines in the lower classes and then once or twice again in greater detail in the higher classes?

(b) *Determination of the parts in each subject on which special stress is to be laid and of the parts which may be passed over lightly or even ignored altogether.* In deciding this question attention has to be paid to all the factors noted above as influencing the curriculum. If the subject is Civics and Indian History special stress will have to be laid, especially in the early stages, on stories of famous and distinguished men or places or buildings well known in the locality, whether in legend or in the affairs of every day life. In Arithmetic ability to calculate in English money may be of great use to pupils of schools in large commercial towns that trade

direct with England while it may be useless to the pupils of ordinary village schools. Or again it may be possible to attract to the schools the children of the petty trading classes in villages or towns if special stress is laid on training in indigenous methods of calculation or maintaining accounts. Again in Geography the syllabus in town schools would devote more time to discussion of local and foreign commerce and industries—in village schools to the comparison of local crops and climatic conditions with those prevalent in other places. In such matters the wishes of the parents must at least be considered. It is also essential to consider the length of time that the pupils will be able to spend in the school. In a school where the pupils can only be got to stay for four years many points will have merely to be touched upon that could be developed with considerable detail in schools where boys will spend seven years. The tastes and capacities of teachers must also here be considered. Only let it be remembered that *when once the syllabus has been framed the teachers must adapt themselves to the syllabus and not the syllabus to themselves.* For in the well organised school the individual teacher is only a portion of a very complicated machine and his work must be in relation to the whole course planned for the school.

(c) *Classification of the pupils, determination of the number of classes and the time to be spent by the pupils in each class.* The normal state of things is that there should be a separate class for each school year with the corollary that the pupil will spend a year in each class. In a very large number of schools, especially in villages—the shortage of teachers or the very small number of pupils in the school renders this impossible. The result is that we find in very many cases only one teacher with five classes trying to solve the problem of being in five places and doing five things at the same time. Usually he gives up the attempt as hopeless, and allows a large portion of his pupils to sit idle and with that listless expression which is peculiar to pupils inside, but not outside, Elementary schools. That is a difficulty that can partly be removed by ingenious framing of the Time table—discussed below. To what extent can it be removed by a wiser system of classification? Many experienced thinkers maintain the general principle, “The fewer the teachers—the fewer should be the number of classes”, which may be attractive in theory but is liable when acted upon to result either in the comparative neglect or in the overstraining of the faculties of the younger or less advanced pupils in these large classes. To a large extent—especially in the earlier stages—the work must depend on the age of the pupils.

If the pupils are placed in one or two large classes which are then split up again for work according to age or ability the change introduced

is nominal rather than real. On the other hand it is certain that in some subjects (particularly in the higher stages) boys who at present are placed in separate classes could without difficulty study in the same class and follow the same teaching. The aim should be to combine the pupils in large groups for lessons which can be given in common but to grade them in smaller classes for subjects requiring individual instruction. Those who have watched our present third and fourth standards or again the first and second standards at work will probably agree that in Reading, Writing and Composition, Geography and Elementary Science (object lessons) a more comprehensive grouping than that which at present obtains is possible. Arithmetic, on the other hand, is a subject which could hardly be treated in this way. And a special plea may be made for a separate teacher in all cases for the infants—the earliest stages being of such supreme importance and the desultory teaching at present bestowed therein being so often disastrous in results. The separate classification (for reading, writing, etc.) of boys who are studying different vernaculars in the same school (in several districts Tamil and Telugu are taught in the same school) may also be insisted on more than is at present the case.

The settlement of these preliminaries—order of treatment, selection of important and negligible items—classification—will be followed by the division of subjects among the classes as noted above. It will then be the duty of the individual teachers under the head master's supervision to plan out the work allotted to them in each subject with careful reference to the time at their disposal and to see that sufficient time is allowed for the most important parts of the year's work. This plan of the year's work will be written out and kept for reference. At present this step is as a rule omitted and the speed with which the work advances in each subject depends too much on the inclination of the teacher at various times in the year and on the date of the annual inspection. Even the conscientious teacher is too apt to go blindly forward and to find at the close either that he has finished his work too soon or that a portion remains undone. Consideration of the parts with reference to the whole is the basis of all organisation.

If the Headmaster is to know at any time what progress is being made in the syllabuses of the classes, it is most desirable that each teacher should maintain some kind of record of his work. This does not involve the maintenance of formal "Notes of lessons"—valuable in the Training school and for young teachers but unnecessary for experienced teachers. What is required is that each teacher should note down regularly in a special book what he has taught in each lesson or group of lessons. Very often a word or a word or two will suffice. A summary of the more difficult lessons and a brief account of the methods employed therein should also

appear in the record, but here again there is no need as a rule for lengthy notes or a carefully written series of questions and answers demonstrating the whole lesson. Ability to condense this summary without destroying its significance is evidence of a complete mastery of the subject by the teacher, and entails a careful preparation of it beforehand. For such difficult lessons the summary should be written beforehand—with a note entered after the lesson regarding its success or failure. In this same record of work should appear the names of books consulted by the teachers—lists of the most common mistakes made by the pupils or points found most difficult by them, etc. Such a record will not merely assist the Headmaster. It will also give more value to the annual inspection where such records may be profitably discussed. The teacher will be able to profit by the experience of the past year—can apply again what has succeeded and spend more time over what has not been successfully impressed.

The Time table.—There are certain points to be observed in framing all time tables which are discussed in all books on school organisation and are familiar to and ignored by most teachers. Among these are the provision of frequent breaks—shortening of periods for lower classes—reservation of more difficult subjects for the earlier part of the school day. These need no detailed remarks. There are also countless small points peculiar to each school to be considered when the time table is framed—for example where several classes are held in one hall it is well to avoid so far as possible giving oral work simultaneously to adjacent classes. Let one be doing drawing, writing work, etc., while the other is reading or reciting. Schools exist where all classes are taught singing of different kinds simultaneously in one hall. The need for a clock in each school also requires emphasis here. However attractive from their picturesqueness may be the methods of village school where the teacher teaches one subject till he gets tired of it and sends away the pupils when the sun sinks low or he himself feels hungry, the effect of such methods on the progress and the health of the pupils is too serious to be overlooked.

A common excuse for the absence of time table is the fact that there is only one teacher. The obvious reply is that the more precious the teacher's time the more carefully must he apportion it.

It is very important here to point out three ways in which defects due to shortage of teachers may be partially remedied by arrangement of the time table.

(a) Simultaneous occupation of two or more classes. A time table on the following lines for one day's work in standards IV and III taught by one teacher, is extremely common.

	Period					
Standard	A	B	C	D	E	F
IV	Reading	Object lessons	Geography	Transcription	Arithmetic	Clay modelling.
III	Arithmetic	Geography	Dictation	Clay modelling	Reading	Drawing.

Note that, in this time table, the subjects requiring individual attention and oral teaching on the teacher's part are taken simultaneously in both classes—while the subjects in which the pupils can to some extent work independently after preparatory instructions from the teacher are also taken in both classes in the same periods.

Let the following time table * be contrasted :—

	Period					
Standard	A	B	C	D	E	F
IV	Reading	Composition & Drawing	Arithmetic	Preparation for Geography Lesson	Geography	Clay modelling.
III	Preparation for Reading lesson	Reading	Clay modelling & Drawing	Geography	Composition	Arithmetic.*

*Explanatory notes :—*In Standard IV—Period B—the pupils will reproduce the subject matter of what has been read or will expand or apply it. They will also draw some object or make some diagram connected with the subject matter. In period D they will read in their text book what is to form the subject matter or at least the basis of the following lesson. In period F they will mould a relief map of the locality or Presidency—or will mould a model of an anicut supposing there has been a lesson on irrigation, etc., etc.

In standard III—Period A—the pupils will read over (silently) the next reading lesson in their book so that quicker progress may be made during the lesson itself. In period C they will model in clay and draw some object connected with the previous lesson. In period E they will write out a few sentences (whether copied from the black board or from memory or as a free reproduction) summarizing what has been impressed in the previous lesson.

* It is assumed here that the classes are held in the same room or hall.

The placing of Arithmetic at the close of the day is not desirable. This would probably be altered if the Time Table for the whole week were framed on the same lines.

I have taken perhaps an extreme case—and it might be urged that only a clever teacher could work according to a time table on these lines. It is in any case a fact that there are schools to day where work is proceeding on these principles. What is to be emphasised is the need for making ample provision in schools with inadequate staff for work that will occupy the pupils usefully but will leave the teacher free to attend entirely to another class—work that is connected with the previous lesson and may be prescribed at the close of that lesson or with a succeeding lesson to which it may be preparatory. At present practically no attention is paid in elementary schools to the value of silent reading and preparation work done in school but without the personal guidance of the teacher. Any reading that is at present done in schools by the pupils left to themselves is usually a repetition of what has already been read and is performed aloud with the book held upside down. Genuine preparation work is not only valuable as a means of engaging the attention of otherwise unoccupied children. It also encourages independent effort on the pupils' part. The present methods which involve the constant attention and assistance of the teacher at every point had a weakening effect on both the moral and intellectual side and are largely responsible for the illiteracy into which many ex-pupils of school relapse. That drawing and modelling, etc., are useful not only to train the hand and eye but because they can be done without the close personal supervision of the teacher (though the work as a rule is better if personally supervised) is sufficiently obvious. The principle of correlation has not only an intrinsic pedagogic value but also the advantage of enabling the teacher to set the next lesson with the prospect of his instructions being intelligible and interesting to the pupils.

(b) The holding of "half day" schools which has been much resorted to in European countries is now permissible under the Educational rules. By this term is here meant the holding of school in the morning for some of the classes and in the afternoon for other classes of the same school—the teaching being carried on by the same teacher or teachers in both morning and afternoon. There are obvious objections to the procedure which is as a matter of fact being gradually abandoned in countries where the supply of teachers grows more rapidly than the number of schools. But there are equally obvious advantages in cases where it is really impossible to secure an adequate staff. Where a teacher attends to two classes for three hours in the morning and to two other classes for three hours in the afternoon there is likely to be more profit to the pupils and less strain to the teacher than in schools where he has to try to teach the four classes for six hours in the day. The chief objection to the scheme in this country is that parents value a school in proportion to the time during which it relieves

them of the care of their children. They wish to get their money's worth and estimate it by quantity rather than by quality. This is the real reason for retaining the unhappy infants in most schools for at least six hours every day. The parents' wishes might perhaps be considered to this extent that the pupils taught in the morning might be allowed to return to school in the afternoon to amuse themselves in any way that could not interfere with the work of the other classes. In the case of schools for depressed or backward classes it can safely be asserted that an arrangement such as has been proposed above would be welcome, since it would enable the pupils to attend also to those out-of-school occupations by which they help to support themselves and their parents. In the case of many Muhammadan pupils whose secular education is at present often deferred till they have undergone a course of religious training it might be possible to ensure an earlier start in secular education if it were confined, in the earlier stages, to a very few hours in the day duly subordinated to the religious instruction. And here it may be added—though it is a digression from the main subject of this paragraph—that co-operation between managers of different schools would often render more profitable the instruction given in both and remove the defects due to shortage of teachers. To take a concrete example—a village contains two schools—each school contains 35 pupils divided into four standards taught by one teacher. A partial amalgamation by which the two lower standards could be taught in one school and the two higher in the other school—the profits being equally divided without reference to any difference in fees for the various classes—could hardly fail to be profitable. It might be urged that to the teacher of the lower classes would justly fall a smaller share of the profits and that the plan is therefore impracticable. The objection is justified by the present absurd practice of charging fees according to the pupil's class but does not rest on sound pedagogic grounds.

Assignment of work to individual teachers:—It is usually the practice in elementary schools to allot one class to each teacher and to make him entirely responsible for it. If all the teachers are competent and experienced this practice is laudable for disciplinary reasons and unobjectionable from every point of view. But the employment in many schools of teachers who are totally inexperienced and untrained or who are far below the level of the rest of the staff will often entail a departure from this procedure. It is not in the interest of such teachers or of the pupils to place one class entirely under their charge. The lowest classes should in particular be rescued from them. At present the worst and lowest paid teachers are left in sole charge of the lowest classes partly because their stock of information is not great enough to enable them to teach the higher classes,

and partly because the pupils in these classes are not able to raise the protest against such treatment that would often be raised by those of the higher classes. With regard to entirely ignorant teachers it is impossible to say anything. To teachers whose defects are due mainly to lack of experience or training there is surely a great deal of more or less mechanical work—or at any rate work of a minor order of importance in the various classes that may properly be left. This warning is also necessary in the case of monitors—(pupil teachers they might be called)—the ex-pupils of the school to whom at present is entrusted so often the work of “teaching the infant class.” Such monitors have a real value when they are put to keep order in a class left by the teacher to prepare a lesson or perform some manual occupation. They can also relieve the teacher of much correction work.

Examinations:—At present one of the most common ways of testing what is called, for politeness, the “organisation” of a school is by calling for the register of marks and examinations. It is more than doubtful whether marks and formal periodical examinations of pupils have much value in an elementary school. It is the teachers rather than the pupils who require systematic and periodic testing. That the pupils of the higher classes should be tested from time to time by some one other than their regular teacher is obvious. But such testing should be mainly if not entirely oral and should involve no special preparation or previous strain on the pupils' part and should therefore be without previous notice. The youngest pupils should never be formally examined. Scrutiny of the teachers' record of work and methods and careful observation of the pupils during class hours will be all that is needed by the most vigilant Headmaster. The teacher who has many pupils under his instruction will do well to keep some written record of the progress of the more backward pupils.

Punctuality and regular attendance:—These essential factors in the welfare of a school depend to a large extent on the parent but also to a large extent on the school organisation. Marking of attendance at the beginning and not the close of the morning and afternoon—opening of a school with a general assembly or some ceremony—a set of definite rules regarding applications for leave of absence and penalties for absence without leave—refusal to promote irregular boys—award of prizes (however small) for regular attendance—are much neglected means of aiming at improvement in these respects.

Attention to physical welfare of pupils:—I will not here trespass on the preserves of another lecturer but cannot refrain from observing that the

organisation of each school should, but rarely does, include provision for daily scrutiny of pupils with reference to cleanliness of body and dress. The arrangement and the kind of school furniture must also be considered by the organiser in this connection. Where boys write standing up with book or slate slanting and further from one eye than the other—with the light on their faces or where they sit huddled on high backless benches or at desks made for college students, the organisation has been defective. Where they sit, for reading, with feet firmly planted on the ground and where they sit on the ground for manual work and drawing and writing with low tables or slightly raised planks in front of them—(seats with desks or tables in front are good if there is enough money but are not essential)—there we can see signs of the organiser who is not content with what has been or still is customary in most schools but aims at improvement in every detail.

It is unnecessary to prolong a paper already of excessive length by further citing of evidence of the need for organisation. In conclusion it may again be pointed out that the aim of this paper is to show this need for more organisation and to challenge independent thought regarding ways and means of organisation rather than to dogmatise regarding those ways and means. If at times the statements have appeared aggressively dogmatic, it is due to lack of space for qualifying words and phrases rather than to a feeling of certainty on the writer's part.

Many may think that the paper contains only what is obvious to all and attainable by none. The writer's own experience leads him to believe that to many teachers and managers the need for organisation has not been obvious in the past and to hope that in many schools the work of organisation will not be found impracticable in the future.

School Museums.

P. T. SREENIVASA IYENGAR, M. A., L. T.

A school museum is an adjunct to school work and ought not to be a miscellaneous assortment of odds and ends, cheap curious, brass gods made in San Francisco, cheap cutlery made in Germany, Kondapalli toys and well-dressed ladies and gentlemen in chinaware. Very often a museum is started on the impulse of the moment to please an educational mandarin who is expected to visit the school, and boys are asked each to contribute some article to the projected museum; the result is that it soon glories in the possession of things of bewildering variety, and is not the expression of any ideas of school teaching. The expected visit takes place, the Head-

master is complimented, on being exceptionally intelligent and up-to-date and the articles are consigned to an obscure corner of the school house, there to be buried in dust till they are wanted again, years later, to help to make another "brave show."

In this country, school museums have a very definite function to discharge. For ages education in India has been a process of memorizing and of interpretation of texts. When English schools were started, the same process was applied to English literature. Students began to recite Shakespeare with as much gusto as they used to recite Kalidasa; teachers, to expound the text of Milton with as keen appreciation of the subtleties of textual exposition as the old world pundits did in the case of Valmiki. Hence English Education has proved to be as futile as Sanskrit Education. The idea that the object of education is to train children, to use their eyes and ears, their hands and their fingers never appealed to the organizers of education in this country. The truth that the brain does not grow by memorizing but by the use of hands, just as in the history of the race the human brain evolved only in proportion to the play of the hand rendered possible by the assumption of the erect posture by early pithecoïd man, never dawned on the minds of teachers of the earlier generations. Ignorance of child psychology also led to the attempt to train children below the age of fifteen to argue about abstractions, and this was supposed to be intelligent teaching in that it was not "cram"! but even excessive memory work is not so harmful to the child brain as premature argumentation about abstract ideas, or rather, the words that do duty for them. School museums are one means of remedying this evil.

The starting and management of school museums presuppose that boys should be encouraged to go on expeditions for collecting rocks, plants, birds, nests, eggs, etc. English school boys take readily to this form of *amusement* as it is called; but *education* it really is, and they often introduce into their dormitories their pet animals on the sly even at the risk of having to copy out hundreds of lines of poetry; but in this country a "good boy" is expected by his parents and by his school-masters to be always at his desk, learning by rote endless lines of moral poetry, enough to drive a saint into the paths of mischief for self-protection against this inhuman grind, or composing essays with no ideas in his brain and with a liberal supply of scissors and paste. But I find that even Indian boys take to nature-study, to the rearing of animals and the raising of plants, to the observation of their characteristics and to the recording of these observations in diaries when encouraged by their teachers; for three thousand years of metaphysics and of concentration of the eyes on the tip of the nose,

has not yet destroyed their human nature, human interests and human faculties.

A school museum ought to be designed by the Head or other master who possesses the necessary enthusiasm, and furnished with specimens collected mainly by the boys themselves. Without being a complete guide to the geology, mineralogy, botany and zoology of the district where it is situated, it should afford the means wherewith the students of the school could intelligently study the most elementary facts of plant and animal life and the physical facts within the reach of the school. The teacher, when organising the museum, ought to make a plan of what things illustrating these ought to be secured, and encourage the boys to collect objects under his supervision and guidance. Since many of the objects would represent living nature, it follows that a portion of the contents of the museum would be of a temporary character—generations of plants and animals, flowers and fruits which may perish and be renewed any number of times; for a school museum need not be what the Madras Government central museum is called by the common people—"the college of corpses."

Besides collecting specimens, the boys should be encouraged to keep diaries where they should note daily their observations of the life history of the plants or animals in their charge; each one must periodically weigh and measure his specimens, note the manner of growth day after day, interesting facts in their habits and so on. It goes without saying that each boy must daily feed his own plants and animals. He may even be encouraged to make simple dissections of plants and animals, or assist at their dissection or, at least, prepare skeletons of animals and leaves and sections of stems of trees and herbaria and make collections of eggs for permanent preservation in the museum. They can also assist in preparing apparatus for illustrating Geographical lessons, *e.g.*, relief maps and globes of putty or papier-mache, apparatus to show the formation of rain, the formation of sediments, models of artesian wells, volcanoes, the subsoil flow of water, water falls and rapids, atolls, etc.

I am of opinion that the grade of teaching below the fourth form of a secondary school should not be conceived as a pendant of the University course and the lower classes as far-off echoes of the matriculation class. Education ought to have a better, saner object in view than leading to the noble end of being slaughtered by the ruthless matriculation examiner. It should be conceived so that geography, that most interesting and most humane subject, may be the central subject and other subjects, history, nature study, drawing, elementary mathematics and language study, may be correlated to it. The school museum, then, should first aim at being an

auxiliary to geographical studies. The various kinds of rocks from sand and clay up to granite and quartz, so far as they can be picked during holiday rambles should be the starting point of school museums. Clay models of hills and dales with river courses and lakes, watersheds and water partings, as well as relief maps can be made by boys and can find a place in the school museum. Clay modelling has this advantage that, when the clay dries it cracks and the models become useless, thus compelling the work to be done again and again every term. A good material for this work, intended for permanent preservation after being done, accurately to scale, is paper soaked in water and ground with fenugreek. Glass troughs filled with pebbles, clay, sand, etc., can be made to illustrate the stratification of the crust of the earth, as also the less visible effects of rain like percolation, subsoil flow, sources of water-supply to wells and artesian wells. The formation of rain ought to be illustrated by apparatus made of tin and sheet-glass and worked by boys. Models of coal mines, made of clay and imbedded in glass troughs and specimens of iron, lead and other cheap metals in various stages of manufacture will form a useful adjunct to the teaching of industries. Specimens of cereals, cotton and wool in various stages of manufacture, silk from the cocoon to the silk cloth, can be easily obtained; and these, supplemented by object lesson pictures of manufactures so easily obtainable from many publishers, will make this portion of geography teaching rational and pleasant.

Philately is especially a school-boy's hobby and can also be pressed into service to render the geography lesson less distasteful to children than at present; and if the collection of stamps of any particular boy is not specially costly, he may leave it behind him as a memento of his connection with his school.

Related to the study of geography is nature study. The animal and vegetable products of the divisions of land and sea cannot be taught unless the student has some knowledge of the main principles of classification of the world's animal and vegetable population; and lessons on their geographical distribution presuppose a knowledge of the fundamental facts of their life history; moreover nature study is in itself of absorbing interest to the child-mind and helps the brain to develop. For this purpose each boy must be given charge of a plant and an animal. He must grow the former from the seed and observe all its changes day after day and record it in his notebook. The main facts that ought to be illustrated in this department of the school museum are the parts of a seed, and single and double cotyledons (seed-leaves) and consequent dichotomy of plants, the functions of

the seed, seedlings, the root and its functions, methods of propagation other than by roots, the structure and functions of stems, the processes of grafting and budding, wounds on the stems and their healing, the leaves and their functions in the economy of plants, flowers, and fruits, their parts and their uses to the plants, the characteristics of flowerless plants, the nature of soil, the feeding of plants, the relations between insect life and plant life, both beneficent and maleficent, and finally the dispersal of plants. Representatives of the more important classes of plants, not omitting the cactus, to illustrate the evolution of the leaf into a thorn for protection against animal depredators ought to be grown. Schools ought to have besides some living specimens of sea and fresh water plants grown in bottles. The bottles containing aquatic plants may contain aquatic animals also, and if suitable plants and animals are chosen, the necessity for renewing the water frequently will be minimized. Models of English fruits and pictures of English flowers and leaves should be added to this department of the museum; they will be useful also in English lessons.

Specimens of the main divisions of animals available in the district where the school is situated ought to find a place in the museum. Most schools are unlikely to possess a compound microscope; hence cultures of animalcules are out of the question. Worms can always be dug out of flower-pots and do not require special care: but insect life ought to be amply illustrated. The different stages of the life-history of butterflies, moths and flies ought to be always available for observation; besides, students should be encouraged to collect specimens of various species and present their collections to their school museums. Beehives and bottles of ants and other insects and spiders in webs, can be provided without any difficulty. Tadpoles and frogs can be kept in an earthen water-cistern. Glass jars or bell-glasses can be improvised into aquaria for fishes. Terraria can be fitted up with small boxes and the life histories of frogs, toads and lizards as also of insects be illustrated. Two or three of harmless snakes will at least cure the Hindu boy of his superstitious dread of everything in the form of a snake. Live shells can be collected everywhere in plenty and this is an occupation of absorbing interest to children.

A few birds and a full collection of eggs and birds' nests will always delight children. Rats, cats, dogs, rabbits and monkeys may represent the higher animals. The bigger wild animals can be represented only by pictures and the bigger tame ones by skeletons so far as they illustrate some fundamental principle of the classification of animals or some point fit to bring out the powers of observation of the pupils.

The Drawing lesson ought to be correlated to nature-study. Drawing has been a compulsory subject in our schools for many years but has made absolutely no headway. Drawing masters begin their drawing lessons with the straight line—that one thing which is least inspiring to contemplate, which exists nowhere in nature and which no man can draw accurately without mechanical aids. The drawing of straight lines and copying of outlines of simple objects set on the blackboard, are the staple products of a drawing master's brain, and after years of such school work, boys are exactly where they began.

Instead of this, boys should be introduced straight to objects and made to draw objects just as they see them. After all, the first object of a drawing lesson is to teach boys to see; each boy must be set to draw the plants and animals he studies. Mass drawing, brush work and light and shade may be introduced from the earliest stages, and perspective as soon as the least steadiness in drawing outlines is attained. Some boys have a natural aptitude for drawing and their work ought to be preserved in the school museum and will be a source of pride to the school.

It is recognised by all teachers that map-drawing is an auxiliary to geography teaching; but ordinarily it is not correlated to geography teaching, except that during holidays boys are asked to copy from the atlases the maps of the countries which they study during the week. I think that maps ought to be drawn in class during every geography and history lesson and boys should follow the class-teaching by marking on these maps whatever they are taught in the particular lesson. The maps for this purpose should be invariably coloured, orographical maps; for geographical and historical facts acquire a meaning only when correlated to the conditions revealed by the physical features of a country or province. To make this possible, boys should be trained very early in their school career to draw maps with facility; and this can be attained if elementary mathematics were correlated in the lowest classes with geography. Drawing on squared paper, measurement of lines, representation of length and direction by straight lines, drawing of circles and measurement of angles, drawing easy plans to scale, ought to be combined with the earliest lessons on the "simple rules" and geographical representation of facts and contour maps ought to follow soon. (Vide *Longman's Practical Arithmetic and Gibbon's Manual for Teachers of Elementary Geography*.) Such a treatment will enable map-drawing to be introduced early in the course and this would secure for children the necessary facility to follow Geography and History lessons as indicated above with their maps. Model maps of all kinds selected from the work of boys done along these lines can be used for

enriching the museum, for adorning its walls and for encouraging later generations of school-boys. History teaching will afford opportunities for the encouragement of collecting coins and old-fashioned implements of warfare and making copies of inscriptions available near the school, which will be a valuable acquisition to the museum. Ballads sung by the people regarding stirring events of local history, *e.g.*, Bobbili ballads, Gingi ballads, might be copied to dictation from wandering bards not yet extinct and can also be preserved. Pith models of historic forts and famous temples will give a meaning to proper names which they do not now possess.

A school museum based on such a correlation of subjects as is outlined above will furnish boys with something to write about when they are set exercises in Vernacular or English composition. It may not even be unreasonable to hope that being trained to observe nature, the poetic instinct of the people of this country which now exhausts itself in making word-puzzles on dreary moral maxims or the charms of post-nuptial love, may turn to Nature for its inspiration and some refreshingly new poetic images will find their way into vernacular poetry and 'moon-faces' and 'lotus hands' and 'long arms,' (like those of the gorilla) which had done duty so long in our poetry will be relegated to well-merited oblivion.

But school museums suffer from one supreme disadvantage that they cannot be the subject of public examinations; and in this country where even the Senate of the University by a large majority approves of the pernicious doctrine that the Matriculation examination is the one and the only motor for driving unwilling teachers along the paths of science-teaching, it is impossible to induce school-masters to whip up enthusiasm about school-museums. I have known highly cultured gentlemen who hold sound views on most subjects under the sun, and yet believe, when they become Matriculation examiners, that by a sly arrangement of their questions they can elevate the tone of school teaching and make intelligent teaching take the place of cram. Age cannot wither, nor custom stale the infinite perfection of the Matriculation examination. The only means of improving teaching is to catch teachers directly and not through the students they present for examination, and infect them with enthusiasm for rational and intelligent methods of education, and once their professional zeal is developed, to keep it up at boiling point.

This ideal of school museums is not a counsel of perfection, but, I speak from experience, is perfectly possible to realize in most schools of the Presidency. Some money can be always squeezed from the allotment for contingencies unless the school is starved for ordinary expenditure, and

whatever is spent on this purpose is money well spent; and I think even the Grant-in-aid-code can be interpreted (please remember this is the land where all schools of philosophy are based on interpretations of texts) so as to afford justification for the sanction of grants for this excellent educational purpose.

Drawing.

J. H. STONE, ESQ., M. A., F. R. H. S.

Under the new Educational Rules and courses of study drawing is more prominent than under the old and it may be reasonably hoped that under their guidance and stimulus the teaching of it will be improved. Existing practice is, however, substantially in accordance with the requirements of the old Madras Educational Rules. These recognised drawing as an optional subject from the first standard, but it is commonly neglected in the primary department, and is often enough not begun before the fourth form. In the high school forms drawing teaching was compulsory. In these forms it is consequently usually taught; but it is almost confined to Free-hand drawing from the flat and from models. Now I believe no unprejudiced person will deny that the results of this teaching of Drawing are of the most insignificant kind. Only a small proportion of the boys so taught reach the not very difficult standard of the Government elementary technical examinations. This is not all however. Of those that do reach this standard, that is, who can copy a piece of ornament from the flat and draw a group of three or four models, very few indeed can be said to have acquired the power of drawing in such a way as to be able to turn it to any practical use, still less to make it the foundation of artistic achievement. In fact I very much doubt if the idea that "Drawing" is anything more than a school subject encouraged by the Department and therefore to be taken up, occurs to the majority of teachers. Drawing is to them the drawing of pieces of ornaments or of cylinders and prisms made for models. As is so often the case the end is entirely lost sight of in the means, and drawing teachers do not seek to teach boys to draw, but to draw the models that they know will be given in the examination. This is illustrated in an interesting way by some drawings exhibited a few years ago at the Teacher's College. Certain students wishing to show their draughtsmanship collected all the models, cubes, spheres, prisms and what not, piled them in a confused mass on a bench and proceeded to draw the result. A difficult feat no doubt, but how useless.

This failure will be explained by some by the doctrine of special aptitude. They will say that only boys who have special aptitude for drawing can learn to draw. I believe this is an entire mistake. Everyone can learn to draw just as everyone can learn to write, though of course the degrees of accomplishment, possible of attainment in the first arts, cover an enormously wider range than in the second. Learning to draw, as drawing is understood in our schools, is indeed a case of survival of the fittest—only those who have a special aptitude are able to rise superior to the difficulty in acquiring the art that are put in their way by the system. If learning to write were made as difficult as learning to draw, the petition writer's trade would be vastly more lucrative and anonymous libels rarer.

What then are the difficulties in the would-be draughtsman's way?

In the first place he usually begins too late. The most plastic time of his mental growth is past and the time when the nerves and muscles are most fit to adapt themselves to answer new demands made on them; moreover he has reached the stage in his education when he has begun to ask of every school occupation whether it will pay in the Matriculation.

This is connected with another difficulty. Drawing has so little place in public examinations that it is regarded as an "extra," a casual or accidental subject of school work. It is taught by special instructors, often of very low general education and is regarded by the ordinary schoolmaster with a mixture of the grudging respect he feels for something beyond his own powers and contempt for a subject of such low examinational value. The last difficulty—the way in which drawing is taught—covers a number of heads. In saying that the teachers are often men of little mental culture I have anticipated one. Drawing-teaching is frequently unintelligent, and uninspiring. In fact, it amounts to very little more than setting a copy and seeing that it is imitated.

A further difficulty is presented by the medium in which the work is done. Of all things to draw with, an H. B. pencil, and inferior paper are the least pleasant (except perhaps a slate pencil on a slate), and the most difficult. When India-rubber is added and the correction of many mistakes, the smudgy hardness of the process is little short of revolting. Finally as a result the drawing lesson is dull to a degree. I have no doubt I shall be told I am wrong here—that the boys like it. So they do, those at least that have any natural taste for drawing, but why? Chiefly because it is an infrequent break in the monotony of school, and because even the least favourable conditions cannot altogether crush the instinctive pleasure in the correlated exercise of the hand and the eye.

As I have brought so serious a charge of unfruitfulness against our system and have taken it upon myself to try and expose some of the causes of it, it is only fair that I should suggest remedies and I propose next to try and set forth some of the ideas which now govern the best school teaching of drawing and to describe some of the methods that arise out of them. It will then remain to consider how far these ideas and these methods can be adopted in Indian schools.

The first idea that I shall touch on is fundamental—it is in fact the idea on which all that is best in modern educational theory is founded—that the teacher's business is not to fill the empty head of the child, or even to make the plastic mind take the shape or mould he desires to impress—in the language of the training schools—but to stimulate and guide the child's self activity. I shall not stop to trace the history of this idea. It is in the air now and in relation to drawing it has perhaps a special value because drawing is so plainly an instinctive activity of childhood.

There are no lines in nature and therefore we might have supposed that the race and the individual would hit upon lines as a means of representing solid things as the result of a difficult process of abstraction and at a comparatively late stage of development. We do not know how old the race was when it began to draw, but we know that long before the dawn of history, men scratched figures of animals on bones and we know that children who can hardly speak, will spontaneously endeavour to represent their ideas in drawing and will use substantially the same conventions to express the human figure as the cave men hit on.

Modern drawing teaching recognises this propensity of childhood and starts with it. Children are encouraged to draw in the Kindergarten according to their own fancy. The principle of guidance, however, is not lost sight of. Experience shows that his spontaneous drawing activity will not carry the child very far. As he gets older he becomes discontented with his inability to represent objects truthfully, and the drawing habit is in most cases, in the absence of regular teaching, lost. The teaching of drawing, especially in this case the guidance of children's self-activity, is therefore also taken in hand in the kindergarten and lower classes of schools.

Now in deciding what this teaching is to be, another principle comes into play—the principle that school work should be pleasurable. This is I know a stone of stumbling to some because they attach a wrong meaning to the word pleasurable, making pleasure the necessary antithesis of serious and sustained effort. School work is of course really pleasurable in so far, as it is the exercise of the pupil's powers under favourable conditions.

The more absorbing the occupation—the harder they are working in fact—the greater the pleasure, provided that the sense of outside compulsion be not too prominent, as it is, *e. g.*, when they are getting up something by heart under fear of punishment.

How then is systematic drawing-teaching to be made pleasurable?

I believe it will save time in the end to consider here what are the chief sources of pleasure for children in drawing. The earliest to appear is perhaps that of muscular movement producing permanent result in lines. Next comes the pleasure of representation, of making likenesses of things and of representing their relations, telling stories and expressing ideals. Another is that of colour, and I suppose the joy the artist feels in the line for the line's sake, is the purest that art can give. I mention this last because one wonders whether childhood is capable of it. I should certainly not expect children to express it, but we must not forget that their thoughts and feelings often go far beyond their power of expression, and I think some instinctive pleasure in the flow of line may be assumed in them.

Now of these various sources of pleasure that of the muscular movement involved in making lines seems the most fundamental. This it is that gives rise to the very common habit of scribbling. Most people scribble even in adult life on blotting paper, or on the sea-sand or on book margins and public monuments, and children will always scribble with chalk if they can get it or with stick or finger in the dust.

Modern drawing-teaching, then, begins with this scribbling propensity and guides it in a useful direction by setting children to draw with chalk on variously prepared wall surfaces. The free movement of the arm and the overcoming of the slight resistance of the chalk on the wall seem to provide the pleasurable element in these exercises, so that the other main satisfaction in drawing—that of representing something—is not wanted. The child is therefore exercised in drawing curves, spirals and circles and later, figures composed of, or containing straight lines. He thus not only learns valuable lessons in form, but acquires control over his muscles enabling him to make his hand travel in any direction he chooses. I ought rather to say hands than hand—for both are equally practised and the bimanual training first advocated by Plato, is thus so far made a reality and of course also much facilitates the execution of symmetrical patterns. As facility is acquired two or more coloured chalks can be used and the drawing can be made representational.

It should be noted that this black-board drawing correlates with physical training. It is in fact physical training, for the child stands upright

firmly planted on his feet and does his work by free movements of the arms, from the shoulder, not unlike those of his drill. There are schools in which wall space cannot be found for drawing, and in them a compromise method is practised. The desks are provided with slots in which a small drawing board, with rough paper attached, can be placed vertically. The pupils then draw at full length of the arm, but seated. This is of course, very much better than mere flat paper work, but falls short of the perfection of bimanual black-board drawing.

Drawing of the two kinds described is *free arm* drawing because it involves movements of the arm, either from the shoulder or from the elbow, and of the wrist. *Free hand* drawing follows in which the arm is at rest and strokes are made by movements of the wrist and fingers. Free hand drawing is usually executed either with a pen, or with black lead pencil or black and white crayons. With a view to the achievement of greater detail and a more complete finish of execution better paper is used, although this need not necessarily be white.

The brush combines great flexibility with the power of producing with a single stroke other forms than lines. Striking results are produced with it perhaps more readily than with any other drawing appliance and its use is distinctly pleasurable. Consequently brush drawing is often practised from the first and this is especially the case in schools where the provision of conveniences for free arm drawing cannot be easily supplied.

In brush drawing no preliminary pencil sketching is allowed, the only helps for accuracy being a ruled outline of the space to be covered and an occasional ruled guide line. Exercises are given of graduated difficulty beginning with single strokes of the brush arranged in simple patterns and culminating in quite elaborated ornamental patterns of the usual free hand type executed in two or more colours.

A further development is the drawing of natural forms with the brush birds, flowers and the like.

There is no doubt as to the pleasurable character of this kind of work giving as it does, with the same stroke, both form and colour and it certainly is a good preparation for the art of design. But I am inclined to think that more importance has been given to it as part of a formal drawing course than it deserves. The power of drawing natural objects with brush only comes as the result of much study and practice, and I think it is a mistake to encourage children to attempt it. There is something very specious in the notion, for instance, that nature study lesson on a flower should be followed by brush work drawing of it but I think that careful black and white sketching is much to be preferred.

Drawing in black and white with pen, lead pencil or crayons involves more careful and accurate representation of form and the indication of solidity by means of light and shade. The pen as being a somewhat flexible instrument comes midway between the completely flexible brush and the hard point of the lead pencil. Pen and ink drawing is I believe little practised in schools, probably because mistakes in it cannot be easily corrected. Children who have been well trained in free arm and in brush drawing ought however so to draw as not to need to correct, and speaking generally the object of drawing-teaching ought to be to eliminate the habits of trial strokes and rubbing out. It is much better to do the same exercise several times with increasing perfection than to produce a single finished drawing as the result of a multitude of corrections. The success of black and white work should be estimated not by the result produced but by the means used to produce it. The lines should be drawn really free hand and not made up of a series of short strokes, the paper should not be smuggy with erasures, the shading should be the result of careful observation of facts.

So far, I have been speaking of methods of executing drawing and the medium employed. There is another thing to be considered and that I would call subject matter and the question that presents itself is *what* ought to be drawn? In the first place the notion that straight lines, arcs, and circles are the elements of form and therefore of drawing is in process of abandonment. It is plausibly argued that the elements of drawing are to be found in oval forms, and curves forming parts of ovals, and experience does seem to show that such forms are most easily drawn by beginners. Perhaps, however, the tendency is rather to give up the idea of using the elements of form in elementary teaching as being abstractions and therefore unfit for beginners who should be occupied with the concrete.

Elementary drawing therefore is concerned from the first with simple combinations of lines rather than with isolated lines and as far as possible with combinations having a meaning. After the elementary stage is passed the choice of subject matter depends on whether the teaching of design is a prominent aim of the course. This it often is in Europe and the English Board of Education makes the formation of patterns and repeats the essential features of its course. In these, however, the natural forms of plants and animals may be broadly treated as motives of ornament and employed to fill spaces used in decoration. For the purposes of such designs large leaves and parts of plants may be drawn from an outline. Geometrical forms may be utilised and regarded as the foundation for ornamental arrangements of natural objects, animals, plants and the like.

In Scotland less importance is given to design and the higher work of the schools in drawing seems to consist mainly in realistic representations in crayons and water colours of objects of still life. Whatever be the ultimate aim of the work it is noted that the necessity for work from the round is insisted upon. Some teachers forbid copying from the flat altogether but all introduce work from the round at a very early stage. The use of the stereotyped "models" however has been almost entirely given up. These are regarded as generalisations of form which should be arrived at through a study of objects. Many fruits, for instance, are roughly spherical, domestic utensils (in England) are more or less cylindrical, books and boxes are rectangular. Collections of such common objects to serve as models are made by drawing masters, or pupils are requested to bring such with them to school. The large number of studies of such objects in various media cannot but have been noticed by visitors to the exhibition.

I now propose to enquire what, if any, of the newer European methods of drawing-instruction can usefully be adopted in India.

It will, I think, be admitted, that bold and free drawing is not the result of the present system of instruction. We must all of us have seen the school boy at his laborious task of niggling a free hand pattern into something like the appearance of real free hand work. He begins of course with his guide lines: then his outline is carefully framed as the result of innumerable scratches and at last he paints in with a series of short strokes of the pencil the lines that ought to flow from it in long unbroken curves. Some of the hesitating timidity of the process is perhaps racial, something is due to thrift which forbids the risk of spoiling the paper, but the greater part comes of the boy's never having had any better method put before him. In view of this state of things we may perhaps conclude that black board or at any rate free arm work ought to be introduced in India. The difficulties are obvious. Actual black boards for the use of school children are impossible as both expensive and cumbrous. A prepared wall surface is wanted. It would not be very difficult to prepare the surface if only wall space were available. In some schools I fear this would not be the case, because the climate makes so many doors and windows desirable that any considerable length of continuous wall is rare. However, I think there must be many in which by a little contrivance sufficient wall surface might be found in rooms or verandas. In planning future school buildings this need might well be kept in view. The best way of preparing walls for drawing seems that recommended by Bengal Vernacular Education Report—the application of a mixture of Portland cement and Indian red in the proportion of about 6 to 1 by weight.

A cheaper method is described in Mrs. Courtright's. "How We Teach The Pariah". It may be noted that there is no necessity for the surface to be black. Any colour sufficiently dark to throw up the chalk marks will do and almost any colour is preferable to black for a portion of school room wall. Given the wall surface the question of chalk arises. Children ought undoubtedly to be supplied with prepared chalk. It is impossible to do any satisfactory work with knobs of rough chalk and the prepared chalk is so cheap that it is astonishing that any one uses rough chalk at all.

Free Arm Drawing seated could be introduced in any well furnished school even more easily. Any writing desk can be made to support the necessary vertical board and the other materials are very cheap. A set of colored chalks in a box costs a penny in England and holders for chalk less than a penny a piece. The roughest country-made brown paper can be used and is indeed fitter for the purpose than expensive drawing papers.

The materials for brush work are of course rather more expensive; but a box of colours and brush need not cost more than six pence. I am not, however, inclined to insist much on brush work for India. It has been tried in some schools and is undoubtedly very pleasureable and useful work; but the new methods I would advocate for general adoption at present are free arm drawing and the use of coloured chalks.

As regards subject matter I think that European practice may safely be imitated. Flat copies may be used for beginners but drawing from objects should be introduced as soon as possible, and these should be such as are familiar to the pupils and readily obtainable. Leaves, flowers, fruits and vegetables, domestic utensils, ornaments, old cigar boxes and empty bottles, books and other school room things—from these there should be no difficulty in selecting material.

The selection of good subject matter and media is not enough however. It is very essential that the drawing work should be "done in a systematic course. I have already, perhaps, sufficiently indicated the main lines which such a course should follow and as these will be found elaborated in the schemes of studies for elementary and secondary schools soon to be issued I need not dwell upon the topic. One matter arises out of it however which demands a few words: the correlation of drawing with other school-objects. Drawing, since it is a means of expressing facts and ideas, seems to lend itself particularly well to this correlation and constant recourse to drawing even to give more reality to history and literature lessons is sometimes advocated. While I see no harm (and some good) in boys trying to draw pictures to illustrate the doings of their favourite heroes, I

also think that this kind of thing can have the very smallest connection with the drawing work of a school which cannot have for its conscious aim the development of pictorial art. School drawing can only deal with the simpler facts of form and light and shade and therefore correlates best with those subjects that deal with the material world—nature, study, elementary science and geography. With these there is undoubtedly great scope for correlation. This cannot be carried out however while the school drawing master is treated as an independent specialist and this leads us to the difficult question of "Who are to teach drawing by the improved methods?"

My answer would be in the first place not men who know a little about drawing and nothing else. Good drawing teaching can only be done by teachers with good all round general and technical qualifications. I would, therefore, urge teachers to seek to become as far as possible their own drawing masters. They have already acquired the elements of drawing and I believe that there are a number of teachers who might by their own exertions fit themselves to take a useful part in the drawing teaching of their schools or might at least organise the drawing work of the school and supervise and supplement the drawing master.

This suggestion is, however, so far as higher classes are concerned only put forward as a temporary expedient. Every complete High School should have an art master and a properly equipped room for him to work in, and I consider that a training class for art masters is a crying want in our educational system. Such a class would consist only of men of considerable general education who had shown a considerable aptitude for drawing. It should consist in fact of teachers from training colleges and schools and it goes without saying that it would only become a possibility when managers of schools recognise that it would be worth their while to provide adequate pay for their drawing masters.

The Teaching of English Composition in our Schools and Colleges.

THE importance of essay-writing, as an essential part of any well-thought out scheme of Collegiate or Scholastic education, seems to be often lost sight of. An hour or two in a fortnight spent in writing an essay in class, is generally considered enough to give the students a satisfactory training in the difficult art of composition. The indifference with which themes are selected for essay-writing, is only matched by the care-

lessness with which the papers are corrected, by an over-worked teacher or lecturer, who is very often not specially fitted for the task. The meagre attention bestowed on this subject naturally affects very seriously the soundness of the English instruction imparted in our Schools and Colleges. Though English is taught to our students during the whole of their School and College course their powers of English Prose Composition, are indeed very poor and disappointing. This lamentable state of things is no doubt, due to the very subordinate place to which the subject is most unjustifiably relegated in our Schools and Colleges.

It will be readily admitted by all that the subject of essay-writing is one that does not readily lend itself to class teaching. The knowledge of a few rhetorical devices or grammatical rules will never enable a student to wield a facile pen. Nor can mere constant practice in the art of essay-writing, without intelligent help from a capable tutor, be of much use. It is all the more necessary, therefore, that satisfactory provision should be made in Schools and Colleges for training and assisting students in acquiring this indispensable, but sadly neglected, art of elegant English Composition.

Adequate justice cannot be done to this important subject in any educational institution, by allotting to it only an hour or two once in a fortnight. There must be at least two hours every week assigned to it. It is equally essential that the composition classes should be entrusted to the care of a lecturer or tutor who is a fair English scholar, well acquainted with the works of the great masters of English Prose. It is curious, however, that in most Schools and Colleges any member of the staff, be he the Mathematics Tutor or History Lecturer or Science Teacher, is considered competent enough to conduct English Composition Classes and correct the exercises of the students. The correction of English essays seems to be considered a task for which no special training is thought necessary. Even granting that a graduate in whatever subject he might have specialized will be able to detect in a student's composition plain grammatical mistakes and other patent errors yet unless he is a good English scholar in constant acquaintance with the best works of the best authors, he will fail to notice or be unable to correct the less patent but not the less grievous faults of style such as irregularities of idiom, incoherence of thought, looseness of structure, want of elegance and grace, and a number of other imperfections, the absence of which contributes largely to the beauty and excellence of composition a teacher who. Essay-writing, like painting or music, is a delicate art, which requires a specialist for the proper exposition of its guiding principles and subtle beauties. For this work, however, it will be surely impossible in any educational institution to get persons who have won

distinction in the world of letters. But every effort must be made to assign the task to persons specially qualified for it.

A mistake which teachers of this subject very often commit is the undue importance they attach to the technical rules of Rhetoric. While rhetorical devices have their own usefulness in aiding a student in composition, there is the danger of their value being over estimated and too much court being paid to them, and it will be one of the functions of the teacher to demarcate the line between the proper and the improper use of figures and tropes and such like rhetorical aids. Nor will mere constant practice, not corrected and guided by a competent teacher, suffice to develop one's powers of composition. Hence Lecturers on the "Architectones of Style" as Goethe effectivly puts it—are as essential as constant exercise in essay-writing, if students are to make substantial progress in the acquisition of this art.

The despondent feeling that no appreciable excellence in the art of composition can be attained by any amount of good teaching on the subject must be scrupulously avoided by the composition master. It is true, no doubt, that what Matthew Arnold calls "the incommunicable elements of intellectual work" which play a considerable part in the art of essay-writing and which lend such inimitable grace and charm to the work of a Lamb, a Hazlitt, or a De-Quincey, cannot be explained or imparted to students by means of lectures in the class-room. But there are such "communicable qualities" as order, unity, coherence, evolution, precision, proportion, &c., qualities which are absolutely essential for literary excellence which the students can be taught to understand, appreciate, and strive after. It will thus be seen that there are no adequate grounds for doubting the efficacy or questioning the necessity of teaching this subject in the class-room.

Dr. Bain in his educational work, "On Teaching English" considers that there are serious disadvantages counter-weighing the benefits of class-room exercises in composition. His serious objection to essay-writing being done in class, is that it is a mixed exercise—partly an exercise in style and partly an exercise in knowledge or thought—and must, therefore, be avoided as a subject of teaching. It is true that the principle of concentrating attention upon a single purpose must be kept in view in every educational scheme. But what Dr. Bain fails to see is that the advantages accruing from exercises in essay-writing in class far out-weigh the evils of violating this educational principle. Instruction in a language cannot be comprehensive and sound if the important aspect of composition is ignored. The principle

has to be violated—even if it be as important as Dr. Bain considers it to be—in the interests of sound education.

Though the teaching of the subject is attended with practical difficulties, and though it is not always easy to get a safe and competent guide to point out the rocks and shoals of style and teach the students to steer clear of them the subject itself is so important that it is hoped that it will receive at the hands of our educationists greater attention than it has hitherto been able to get.

A First Grade College in South India on the lines of the Poona Fergusson College.

THE discussion that is now carried on in this Presidency in connection with the proposed National College for Southern India has given unmistakable indication that there is a general desire that greater attention should be devoted to the formation of character in school life, and that provision should, accordingly, be made for religious and moral instruction in our Schools and Colleges. At the same time it is obvious that such religious instruction should merely supplement secular education and not be emphasized so as to overshadow or unduly interfere with the higher western culture demanded by the University. Following the above indications it is proposed to establish a First Grade College to be affiliated to the Madras University, which shall make provision, as far as practicable, for the imparting of religious instruction in accordance with the creeds of pupils, this instruction to be given out of College hours and attendance to be optional with the pupils.

2. It is proposed to raise by public subscriptions the funds necessary for the establishment and maintenance of the College. According to the new curriculum recently adopted by the Madras University a complete First Grade College would ordinarily require an outlay of four lakhs of rupees in buildings, hostel, quarters for professors, laboratory, library, furniture, etc., besides a funded capital of eight lakhs—or a total of twelve lakhs of rupees which would be impracticable to raise by subscriptions in the present conditions of the Presidency; it is a most encouraging sign that with a view to render the scheme practicable eleven gentlemen, some of whom are distinguished educationists and all of whom are men with distinguished university careers, have agreed to work on the staff of the College for a period of years in return for a mere living wage, on the lines on which

the Fergusson College at Poona is now conducted. We have no doubt that with the above staff the proposed College will be one of the best officered and one of the most efficient in the Presidency. For obvious reasons it is inexpedient at this stage to publish the names of the gentlemen that have undertaken to serve on the staff.

3. The philanthropic and patriotic offer of these gentlemen renders it possible to maintain the College with a comparatively small funded capital. The salary paid to the Professors in the Poona Fergusson College is Rs. 75 per mensem, and the cost of a staff of eleven Professors with other incidental expenses will amount to Rs. 15,000 per annum as detailed

11 Professors at Rs. 75 per mensem	825
Insurance premia for professors	110
Clerk, Librarian, menials, etc.	150
Contingencies	30
	1,115
	12
	13,380
Repairs (buildings)	500
Do. furniture	500
Library	500
Extra	120
	15,000
Buildings, College, Hostel, Quarter for staff	1,20,000
Laboratory (for the science which is part of the Mathematics for the B.A. and F. A.)	55,000
Library	15,000
Furniture	5,000
Extra	5,000
	2,00,000

on the margin. When the College works well, there may be, on a low estimate in the F. A. classes 120 pupils and in the B. A. 80 pupils; and at Rs. 5 per head per mensem this will give a yearly income of Rs. 12,000. For the first few years, however, it will not be safe to calculate the fee income at more than Rs. 7,000 or Rs. 8,000; and it is therefore essential that there should be a funded capital—say two lakhs, yielding an annual income of Rs. 7,000 or 8,000. The outlay on buildings, hostel, etc., will amount to another two lakhs as detailed on the margin—so that the minimum amount necessary for the establishment and maintenance of the College is four lakhs. As the new curriculum for the B. A. course will not come into force till the beginning of 1911 it is not necessary to have the full laboratory and other equipments immediately, and the College may be opened next year with 3 or 3½ lakhs if there is an assurance that further funds

will be forthcoming before 1911.

4. The above estimate of four lakhs does not provide for science teaching in the B. A. course except as part of the Mathematical branch, or for technical education of any sort, or for any retiring allowance or pension for the staff. It has been strongly represented that the scale of Rs. 75 per mensem adopted many years ago in Poona has now become too low in consequence of the large rise in prices in recent years and that the pay should be fixed at Rs. 100 per mensem. It is hoped that the improvement in fee income after the first year or two will render it possible to raise the pay to Rs. 100 and to make provision for retiring allowances. The addition of science teaching in the B. A. course will require a further initial outlay of 2 lakhs of rupees.

5. It is proposed to locate the College in Coimbatore, and we feel confident that the reasons which have decided us to select this place in preference to Trichinopoly, Madura or Tanjore will commend themselves generally. Confining attention only to the districts likely to be served by a College at each of the above places the present educational facilities are as follows :—

		1st grade Colleges.	2nd grade Colleges.	High Schools.
Tinnevely	...	...	2	11
Madura	...	1 (Proposed American Mission)	1	8
Tanjore	...	1	1	12
Trichinopoly	...	2	...	4
Salem	...	...	1	3
Coimbatore	...	...	1	8
Cochin	...	...	1	10
Malabar	...	...	3	13
South Canara	...	1	1	4

It will be seen from the above that in the West Coast, Salem and Coimbatore districts there is only one First Grade College (St. Aloysius Mangalore) which is situated in a corner and but little resorted to and that a First Grade College at Coimbatore will serve a larger area and draw its materials from a larger number of educational institutions—seven Second Grade Colleges and 38 High schools than one at Trichy, Tanjore or Madura; with this further advantage that while a College at any of the latter places will merely result in the redistribution of the existing number of pupils among a larger number of institutions, a College at Coimbatore in the midst of till now unexplored localities will make a real addition to the number of College pupils in the Presidency. Further it is to be remembered that the Dindigul Palghat line of Railway will be an accomplished fact in about two years as it has been included in the programme for three years beginning with 1906-07:—this railway with the District Board chord line from Pollachi to Coimbatore will place Coimbatore within almost as easy reach of Madura and Tinnevely as Trichy and Tanjore are.

6. But we are strongly of opinion that the question of locality should not be decided wholly or even mainly by geographical considerations. In whatever town the College may be situated the number of its pupils permanently resident in the town will form but a small percentage, and the non-residents forming the vast majority will under the University regulations

have to be housed in the hostels attached to the College. Under such conditions the success and popularity of a College will depend upon the efficiency of the staff and of its hostel arrangements; and the college may be situated in any place easily accessible from the area to be served. Some of the large educational centres in the Presidency, especially those on the banks of large rivers are insanitary and it is inadvisable to locate the College in such places. Coimbatore situated nearly opposite the Palghat-gap on a table land 1300 to 1400 ft. above the sea has a healthy climate which except in about two months corresponding to the midsummer vacation is cool and invigorating. And considering that the students have to spend five years of the most critical and impressionable period of their lives at College the question of climate should form an important factor in deciding the locality. Further the people of Coimbatore have most warmly welcomed the idea of a Central College like the one under consideration and have guaranteed a subscription of one lakh of rupees besides an annual contribution of Rs. 3,000 or Rs. 4000 for the support of the College. This is about one half of the total amount required. Further the necessity for a First Grade College at Coimbatore is more obvious and will perhaps be more readily admitted than for one at Trichy, Tanjore, or Madura and the enthusiasm which the scheme has evoked in Coimbatore is one proof of such necessity. Lastly Coimbatore occupies a central position in regard to Salem and the West Coast Districts, and will soon be within easy reach of Madura and Tinnevely. In these circumstances we have little doubt that its claims will receive enthusiastic support.

7. There is attached to this prospectus the Memorandum of Association and the rules of a society to be registered under the Literary Societies Act XXI of 1860. The primary object of the Society is the establishment of the 1st Grade College which is the subject of this prospectus. The society is called the *South India Education Society*, so as to indicate that the College is not a mere local venture but has a representative character. The society is to be based on the model of the Deccan Education Society and it is in contemplation to extend the scope of the society as funds improve. It is requested that gentlemen wishing to subscribe for the College will become members of this society so that they may have a voice in the management of the College. It is intended that the constitution of the council and of the governing body and other matters relating to the working of the society should be decided only after registration when it is expected that there would be a large body of subscribers belonging to Madras and other districts. The rules now merely divide the subscribers into various classes according to the amount of their subscriptions.

There is no greater charity than the provision of facilities for the acquisition of useful knowledge and we call upon all persons interested in the education of the rising generation to support this movement liberally.

MEMORANDUM OF ASSOCIATION.

THE SOUTH INDIA EDUCATION SOCIETY, COIMBATORE.

(To be registered under Literary Societies Act XXI of 1860.)

1. The name of the Society shall be "The South India Education Society, Coimbatore".

2. The object of the Society shall be the promotion of education:—

i. by the establishment of a First Grade College at Coimbatore. This shall be effected either by taking over the existing Coimbatore College and raising its grade, or, if that be not feasible, by establishing a First Grade College independently of it.

Provision shall be made in the College, for imparting instruction in morals and in religion to its students according to their respective creeds as far as circumstances permit.

ii. and, as funds permit, by providing facilities for the acquisition of general and technical knowledge.

3. The affairs of the Society shall, for the present, be managed by a provisional governing body, consisting of the following 23 gentlemen:—

M. R. Ry. Rao Bahadur C. Nagoji Rau Avl., Retired Inspector of Schools,
President, Coimbatore.

"	U. Ramasami Chettiar Avl., Merchant,	Vice-President.	"
"	T. S. Balakrishnanayyar Avl., H. C. Vakil.		"
"	Velliangiri Goundar Avl., Mirasidar of Vellaikinar.		"
"	Marana Goundar Avl., Mirasidar of Dinampalayam.		"
"	C. M. Padmanabhachar Avl., H. C. Vakil.		"
"	Annamalai Chettiar Avl., Banker,	} Treasurers.	"
"	Verivada Chettiar Avl., Merchant,		"
"	N. V. Desikachariar, Avl., H. C. Vakil.		"
"	C. V. Venkataramanaiyangar Avl., H. C. Vakil.		"
"	K. Narayana Sastriar Avl., H. C. Vakil,	Secretary.	"
"	K. V. Srinivasa Aiyar Avl., H. C. Vakil	} Joint Secretaries.	"
"	Giria Chettiar Avl., Merchant		"
"	K. R. Venkataramanaiyar Avl., Bank Secretary.		"
"	K. Chowdappaiyar Avl., H. C. Vakil.		"
"	Karadibavi Ramasami Nayakar Avl., Banker.		"
"	V. R. Krishna Aiyar Avl., H. C. Vakil.		"
"	Rangasami Aiyangar Avl., H. C. Vakil.		"
"	Balakrishna Pillai Avl., Merchant.		"

M. R. Ry.	C. S. Sambamurthi Aiyar Avl., H. C. Vakil.	Coimbatore.
"	P. K. Ramakrishna Aiyar Avl., Pleader.	"
"	Gunne Gounder Avl., Mirasidar.	"
"	N. Kolandaivelu Pillai Avl., Chemists.	"

RULES OF THE SOCIETY.

1. The Society shall consist of Patrons, Vice-Patrons, Fellows, Members, Associates and Sympathisers.

2. Patrons shall contribute not less than Rs. 5,000 each and Vice-Patrons, not less than 2,500 Rs. each. Fellows shall be of 2 classes; i. Those who contribute not less than 1,000 Rs. each: and ii. Those who undertake to work for the Society, under the rules to be framed hereafter. Members shall contribute not less than 500 Rs. each: Associates, not less than 100 Rs. each: and Sympathisers not less than 25 Rs. each.

3. The property of the Society and the management of its affairs shall vest in a Council of which the Patrons and Vice-Patrons shall be life-members: the other members of the Council shall be elected by Fellows, Members, Associates and Sympathisers in accordance with rules to be framed hereafter.

4. The names of Patrons and Vice-Patrons shall be suitably perpetuated in connection with the College buildings.

5. The affairs of the Society shall for the present be managed by the provisional governing body named in the Memorandum of Association.

6. Within 3 months, after the registration of the Society, the then Patrons, Vice-patrons, Fellows, Members and Associates shall meet at the instance of the Secretaries at Coimbatore and frame rules for the constitution of the Council and of the governing body and for all other purposes necessary for carrying out the objects of the Society. Voting by proxy shall be allowed at the said meeting.

(Signed) C. NAGOJI ROW,
President.

The following letter of Mr. G. Subramaniya Aiyar published in the Hindu, calls pointed attention to the shortcomings and weak-points of this educational venture which if left unremedied, are sure to tell heavily against it.

I have carefully read the prospectus of "A First Grade College in South India," which has been issued from Coimbatore by the projectors. As far as I can see, I do not think that they have made out a case for the establishment of a College like the one proposed. There are a sufficient number of Colleges of this kind already in the Presidency, and our ambition for educational independence

should take a different direction. What is the special feature of the proposed College? It will be after the model of the Fergusson College at Poona. That is to say, the professorial staff will consist of graduates, paid the starvation salary of Rs. 75 a month. I don't know whether this one feature will make the proposed College the same as the Fergusson College. I see that the projectors contemplate the establishment of a Society on the model of the Deccan Education Society. The subscribers of the College Funds are to become members of this Society, "so that they may have a voice in the management of the College." If this be the case, the failure of the College is more than assured. The subscribers will be several hundred in number, and these as members of the Society to have voice in the *Management* of the College! What more is needed to make the College a failure? Nine men in Madras who form the Trustees of Pachaiyappa's Charities have sufficed to arrest the development of their College, and what will be the fate of the Coimbatore College when not nine, but 9,000 subscribers claim "a voice in the management of the College" (these are the words of the projectors, incredible as they may seem). The case of the proposed Coimbatore College is worse, for, in the case of the Madras institution, the liberal salaries paid to the teaching and professorial staff are a sufficient inducement to their sticking to their respective places in spite of the constant interference of the Trustees, not always in the true interests of the College. But when the staff is paid the starvation allowance of Rs. 75, and when every person that has paid a certain sum in support of the College, claims a voice in its management, the staff must have more than human patience and self effacing spirit. The professorial and teaching staff, who are expected to work more for the love of the country than for the pay, have a right to expect Complete autonomy in the management of the College and look to the happy results of that autonomy as reflected in the tone and efficiency of the College as some reward for their patriotic self-sacrifice.

In what sense can the proposed College be called a *National College*? The projectors say that "the recent discussion regarding the establishment of a National College in Southern India has given unmistakable indication that there is a general desire that greater attention should be devoted to the formation of character in School life, and that provision should accordingly be made for religious and moral instruction in our Schools and Colleges." I am not surprised that the projectors have caught this cant of the bureaucracy. Will religious and moral instruction of the kind indicated in the prospectus form character? What are the traits of the character that has to be formed? The projectors' idea of religious instruction does not seem to be of a robust or intense nature. It is not to interfere with the higher *Western culture demanded by the University*. It is to be given out of College hours and pupils are to have the option of attendance. What an excellent religious instruction it would be when imparted in this manner! Their idea of moral instruction is characteristically nebulous. Nothing is said as to how this moral instruction is to be given and how its results are to be manifested. The mere employment of a number of graduates on starvation salaries

with their work impeded at every turn by a body of irresponsible men claiming a voice in the management of the College will not produce this result. Nor will "the Higher Western Culture demanded by the University" do so. If the projectors have any real intention of making the College National, they should give up this fatal craze for the Western Culture as demanded by the University. What is the Western Culture demanded by that officialised and re-actionary body? It is a smattering of English Literature, Philosophy and Mathematics, carefully designed to make the nation a multitude of quill-drivers and professional men, with all higher virtues killed by a condition of mental slavery. In short, no College is worth the effort of bringing it into existence and managing it, which is not independent, thoroughly independent, of the so-called University managed by unsympathetic foreigners and inspired by ideals opposed to those of the nation.

In my address as President of the Conference at Chittore I indicated the outlines of national educational institutions. It is not so much the Western Culture as Western Science that we want most; but the projectors have shelved the latter into the back ground. It is not the Western culture demanded by the University that we want most, but the Eastern culture, the culture afforded by our ancient and immortal teachers. It is not the History of Greece and Rome, of England, and other European countries that Indian youths should study, but it is the history of our own country and our own race. Let me quote here, in support of my own views, those of a well-known Hindu Patriot, Dr. Coomarasami of Ceylon, who, writing in the *Hindustan Review* for July, makes the following excellent observations:—"The remedy for the present attitude of mental slavery lies in a national education. By national education I mean such a system of education as prevails in Denmark, aiming at the development of the people's intelligence through the medium of their national culture. The national progress of Denmark during the last thirty years has been remarkable. It is mainly due to the organised growth of general education on National lines. They rely more on lectures, giving instruction and interesting examples of the history, and teaching the best literature of the nation, than anything else. National history and literature are given the foremost place, even in Technical and Agricultural Colleges,When we find many Indians neglect their mother tongue, and officialised Universities discourage the study of Vernaculars, and that many Indians are more familiar with English history and literature than with their own; when we find that the whole English system is transported *en bloc*, and French and Latin are demanded of Indian students, and English is used as the medium of instruction from the beginning, it appears that things have gone too far, we find it impossible to buy gold too dear." In fact the educational future of our country should consist of increasing endeavours to prevent Indians from being denationalised to preserve the individuality and the inheritance of the Hindus, to raise the country from its abject material and moral impoverishment, and to produce, as Japan has produced, a race imbued with strong impulses of patriotism and self-respect. Has the Indian University system, dry-nursed as it is by the officials, shown till

now indications of producing any such result? If with such a body the proposed College should necessarily affiliate itself, it is foredoomed to failure. The projectors commit the fatal blunder of binding themselves by the demands of the Universities, whereas the mental and moral salvation of India depends on our emancipation from the slavery inflicted by these institutions.

History of Elementary Mathematics.

By MR. R. P. PARANJPYE, PRINCIPAL, FERGUSSON COLLEGE, POONA.

THE following excellent account of the history of Elementary Mathematics published in the *Hindustan Review* for August, formed the subject of a lecture delivered by Principal Paranjpye before the Bombay Graduates' Association.

It is always a difficult problem to give a popular lecture on mathematics as it is not generally possible to exhibit simply the results while ignoring the processes by which they have been achieved. I have, however, hit upon this subject in the hope that it may interest even the most unmathematical person to see how laborious has been the path of the investigator even in matters which come to us as a matter of course. The history of a science is itself a kind of science and consequently cannot fail to appeal to an educated audience.

The beginnings of mathematics are lost in hoary antiquity. In its earliest chapters this history often merges into philology, ethnography and psychology. The two fundamental ideas of pure mathematics are number and space. When these ideas become definite enough to be expressed in words and to be talked about, mathematics may be said to have begun. The idea of number which seems so familiar to us is, however, not quite so easy to grasp as seen from the example of several aboriginal races whose ideas about number are very primitive indeed. Uneducated persons even in civilized countries find it hard to make simple calculations without the help of something concrete to represent the number. If you ask such a person his age you may often hear him reply that his age is some seven or eight scores of years. It is well-known how enormously varying are the estimates formed by two persons of the same crowd. The audience in the same anti-partition meeting may vary from ten thousand in the *Bengalee* to five hundred in the *Englishman*, a range which undergoes a curious inversion when the meeting is one to express regret at the resignation of Sir B. Fuller.

While the idea of number and counting is often present among the lower animals to a certain degree, it cannot be said that it is a perfectly definite idea in some aboriginal tribes. A crow, it is said, can count up to three or four; if a bird's nest contains four eggs, one of them may be removed without detection, but if two are removed, the bird discovers the tampering and leaves the nest. "One

species of *Eumenes* supplies its young with five victims; another 10, 15, even up to 24. The number appears constant in each species." Here seems to exist the beginning of arithmetic. On the other hand the aboriginal Australian has no very clear idea of a number greater than three or four.

Passing from the idea of number to that of counting we find many interesting facts among the lower races of mankind. One constant means at disposal is the palm of the hand. Several tribes who have no number-words to denote numbers greater than three or five can, however, by dumb show communicate ideas of far bigger numbers. For purposes of record several devices like shells, pieces of stick, knots, &c., are used. The main source by means of which we can trace the gradual development of the idea of number is, however, the numeral words themselves. The number of independent number words is very small in any language. In the English Language to count up to a billion the only independent, i. e., non-derivative words used are one, two, three, four, five, six, seven, eight, nine, ten, hundred, thousand, million, and billion. All other words are made out of these. The origin of these independent words is lost in antiquity and is a matter for philologists. In some languages we can see very clearly how these words are derived. In the languages of several barbarian races this derivation is very often quite obvious. Thus the word "five" is in great many languages cognate with the words for hand or foot compare *panch* and *panja* in Marathi. The word ten is in several languages denoted by words like "man," "two hands," &c, the word *zehn* for ten in German means also toe, although in the opinion of several philologists the coincidence is merely accidental. In others twenty is denoted by "one whole man" signifying that among those people both fingers and toes were used for counting. These several numeral words explain the fundamental number—what is called in mathematics the radix of the scale—used as the step. Generally this radix is five, ten or twenty. But instances exist where six, twelve, twenty four are taken as the radix. In all the Aryan Languages the word for nine is very similar to that for "new," and it has been inferred therefrom that eight was among the ancients a kind of step.

In Sanskrit where even mathematics was written in verse a great necessity was the multiplication of synonyms, for the same number for without their help the verses would read very monotonous. Consequently everything or every group of things which suggested a constant number was used as a synonym for that number, thus Veda means four, eye two, moon one, and so on. By putting these words together big numbers can be very conveniently and succinctly expressed. Thus *abdhisuryashvinas* means four (*abdhi*=4 oceans) twelve (*surya*=12 suns) 2 (*ashwins* being two), i. e., the number 2214 according to the usual Sanskrit rule that numbers are read backwards.

We may now pass from small numbers to big ones. In comparatively advanced tribes we meet with words up to one hundred or one thousand, but beyond this limit they are unable to express their ideas if they have any at all. The

word *million* was first used in Italian to denote a concrete mass of ten tons of gold and is found used in a numerical sense only since 1494 in which year it is found in a fairly well-known book on arithmetic. The words billion, trillion, &c., are only recent coinage. Among Indians on the other hand, definite words are used to express powers of ten up to the seventeenth. Seeing that Indians possessed an ideal system of number notation this is not quite so wonderful. It appears that we possess still higher number words. In Indian mythology fanciful numbers are very often used. The Ramayana mentions that ten thousand sextillions, (i. e., 1046) monkeys were brought into the battlefield by Rama. The Jews were far behind in their ideas of big numbers. With them infinity was denoted by the grains of dust on the surface of the earth as if they were innumerable. With Indians, on the other hand, one of the first problems in arithmetic is the counting of these very grains of dust. The followers of Buddha, however, leave all these big numbers far behind. Their writers have distinct names for different step numbers like $m, m^2, m^4, m^8, \dots, m^{2^{128}}$ where $m=107$ so that if we want to write the last of these numbers down in the usual way, the number of digits required is itself a number containing some forty digits!

It is curious to see that the idea of a number entertained by the ancients has been only recently extended in the modern theory of complex numbers and later still in the theory of aggregates founded by George Cantor, a description of which would be too abstruse. It, however, serves to show how mathematics is still a living science and is capable of advancement in its very elements.

The idea of infinity was clearly obtained, at any rate for mathematical purposes by mathematicians of the eighteenth century, though it is curious to see that Bhaskaracharya in the *Lilavati* gives a good discussion of the same. He considers fractions with a zero denominator and calls them *khahara*. He says that such a quantity can be neither increased by any finite quantity whatever, if we employ the ordinary rules of fractions $\left\{ \frac{a}{0} \times b = \frac{a \times b \times 0}{0} = \frac{a}{0} \right\}$. From this he makes the characteristic remark that they are similar to *Ananta* or the Infinite in the Theological sense: "In this quantity consisting of that which has cypher for its division there is no alteration though many be inserted or extracted; as no change takes place in the infinite and immutable God at the period of destruction or creation of worlds, though numerous orders or things are created or put forth."

It is too big a subject to consider the various methods of grating down a number. Suffice it to say that before the present decimal notation with the place value of the digits and the sign for zero was invented by our ancestors about the 6th century after Christ, all numerical computations involving only fairly big numbers were exceedingly hard problems. Just try to multiply two numbers between one and five thousand together using only the Roman notation and you will see how hard a fact it is. At one time—and even now in some countries—a mechanical instrument called the *abacus* was used for calculation. Although every

important discovery was attributed by the Hindus directly to some god, still this method of decimal notation appears to have been discovered about the 6th century. The name of the discoverer is unknown as is generally the case with the world's great benefactors. Still we do not see the whole system explained in the books of Aryabhata who lived in the 5th century, while it is fully explained in the works of Brahmagupta who flourished in the 7th. In his books as well as in those of Bhaskara who flourished much later but whose books are the most celebrated in India, we find all the theoretical part of arithmetic explained as well as in any modern text-book including the extraction of square and cube roots, vulgar fractions, mensuration, &c. In Europe the decimal system did not become common property till the 14th or the 15th century. The Arabs who were great enthusiasts for all knowledge, learnt it from the Hindus and transmitted it to Europe, in the first place to Italy. We find it well-explained by Leonardo-da Vinci, the mathematician and painter. The first English book in which we find it fully explained is Robert Recorde's *Whetstone of Wit*, a curious book incidentally referred to in Sir Walter Scott's *Fortunes of Nigel*, when Nigel asked for some book when he took refuge in some house in *Alsatia* with the money-lender.

The only discovery which ranks in importance with the decimal system is Napier's discovery of logarithms which has simplified all calculations to such an enormous extent. This discovery was perfected by Criggs and Vlacq and the necessary tables were calculated by them. We shall not dilate more upon this here although it is a very interesting subject.

Leaving Arithmetic and coming to Algebra we find that we are treading on surer ground. The earliest writer in the West on this subject is Diophantus who however, is regarded by some writers as a mythical personage. In India where Algebra may be said to have first sprung up as a science, there are several writers on the subject, the most celebrated text-book being the *Bijaganita* of Bhaskara. Diophantus is very shaky in his notation and can solve in general only simple equations. He knows how to solve quadratic equations only in special cases and often uses ingenious artifices but was not in possession of a general method. His great forte was what are now called indeterminate equations also called after him "diophantic equations." The Indian mathematicians on the other hand were far better as regards their notation though, of course, far behind us at present. Excepting the Binomial Theorem, Bhaskara knew all the Algebra that is required for the Previous Examination and also several higher problems. Thus he gives rules for the extraction of square and cube roots, solution of any quadratic equations, ingenious methods for solving cube and biquadratic equations (which, however, he frankly confesses, are only useful for special cases and are to be discovered by one's innate intelligence—*svabuddhi*.) general rules for fractions, solutions of indeterminate equations of the first degree, of the indeterminate equation of the second degree known now as Pell's problem, arithmetical and geometrical progressions, and permutations and combinations which he calls *chhandawichar*, that is, the number of ways in which a given kind of metre can be

constructed. Indeterminate equations were solved in the West only in the 17th and the 18th centuries while general rules for cubic and biquadratic equations were given by Italian mathematicians of the 14th and 15th centuries.

As I have to deal only with the elements of Algebra, I shall not be able to give the history of recent developments. The modern notation in Algebra is mainly the work of Descartes and his contemporaries. The Theory of Permutations and Combinations was completely given by Pascal and Fermat in the 17th century who applied this theory to questions of probability or chance. Newton discovered the Binomial Theorem for any index. Complex quantities were met with by several earlier mathematicians including our ancestors who rejected solutions involving such quantities as useless but were systematically considered first of all by Argand and more fully by Cauchy and his followers and now form the subject-matter of the important and extensive branch of mathematics called the Theory of Functions. Several problems which can be easily proposed but are not easy or even possible to solve have been discussed later. One of the most interesting of these is the solution of an equation of any degree. In the case of an equation of the 5th degree, Abel and an Italian named Ruffini, whose work remained unnoticed for a long time, proved the impossibility of a solution in general by means of algebraical methods. The possible cases can be considered by methods initiated by the precocious French mathematician Galois—who unfortunately for science was killed in a duel before he was twenty and whose discoveries are known only by means of a letter containing his discoveries which he wrote to a friend of his on the eve of the duel in anticipation of his death—and carried on by his successors which are even now a progressive branch of mathematical study.

In talking of Algebra, we have mentioned only the broad points since really speaking it is only the continuation of Arithmetic up to, at any rate, a certain point. We cannot go to the very beginnings of geometry. The idea of space with which it deals is a fundamental concept—perhaps even more so than the idea of number. Hence it need not surprise us that while among the Hindus Arithmetic and Algebra attained great progress, in another branch of the Aryan race it was Geometry that was first cultivated with enormous success. Perhaps Hindu genius is specially suited for the abstract like number, while the Greek revels in concrete geometrical reasoning, while the one considered very large numbers, the other developed conceptions like incommensurability. The legendary origin of Geometry is attributed by Herodotus to the Egyptians. The Nile, says the father of history, often inundated the surrounding country and problems in survey and mensuration were consequently of frequent occurrence in apportioning the rich alluvial land thus placed at the disposal of the people. Thus arose the need of geometrical constructions and this naturally led to the discovery of several geometrical theorems. In any case actual scientific progress was bound to be slow. Particular cases of theorem may be known long before the general theorem was accepted. One of the earliest problems of which we have any notice is the

finding of the height of the pyramids. It was solved by using instructively the principle of similar triangles. The position of the shadow of the pyramid was observed at the instant when the length of the shadow of a known stick was seen to be equal to the length of the stick itself.

The first mathematical book of which we have any record is the Rhind Papyrus of the Egyptians. In it here are several curious decompositions of compound fractions into simple fractions with unity as the numerator. In the early history of Greek geometry we always read that the geometers had first studied in Egypt and the east. Pythagoras, one of the greatest of them, is said to have got his knowledge from that country. He or one of his school discovered that the sum of the three angles of a triangle is equal to two right angles, and that the square on the hypotenuse of a right angled triangle equals the sum of the square on the sides. The principle feature of Greek geometry was the limitation of allowable constructions, *viz.*, the use of a straight ruler and a pair of compasses and the Greek geometers considered a problem as solved only if it could be reduced to others which are known to be soluble by these means only. The number of Greek mathematicians whose names together with some account of their writings have come down to us, is very large, but we shall briefly mention only a few of the greatest. Pythagoras we have already mentioned. Menæchmus is said to be the discoverer of Conic Sections which he obtained by cutting off right circular cones by planes perpendicular to a generator. If the cone is acute angled it is an ellipse, if right angled it is a parabola, if obtuse angled it is a hyperbola. Our present definition of a conic by means of the focus and directrix was not then known. Euclid is too well-known to us to need any detailed description. After having moulded the minds of successive generations of students for more than two thousand years he is only now in process of deposition, and so far as Bombay is concerned, his deposition will be complete a month hence *when the first paper in geometry is set at the next matriculation. It is not given to many to have such a lasting influence. Euclid of course was, as regards his elements to a great extent a mere compiler. He therein reduced geometry to a logical system though his uniformly synthetical method is now considered unsuited to initiate the young idea into the truths of geometry. Euclid was also the author of several original works most of which have been lost. Archimedes was probably the greatest mathematician of antiquity and perhaps, if we except Newton, the greatest of all time. Previous students of this year will have met with his name in connection with the siege of Syracuse in the second Punic war when he baffled for a long time the Roman besiegers by means of his mechanical inventions, and when at last the city was taken by treachery Archimedes, who was drawing figures on sand, was killed by a rude Roman soldier whom he peremptorily asked to get away and not to interfere with his figures. His discoveries both in pure and applied science number legion. The hydrostatic

* This was spoken about the end of September 1906.

principle that bodies weighed in fluid lose as much of their weight as is equal to the weight of the fluid displaced was discovered by him while taking his bath and is called after him. He discovered—at any rate, successfully applied to several important problems—the method of exhaustions which was to a certain extent the ancient equivalent of the modern calculus. Among other discoveries he showed that the surface of a sphere is equal to the surface of the circumscribing right cylinder, and Cicero relates that while Governor of Sicily he saw Archimedes' grave with the figure of the sphere and the circumscribing cylinder carved on it according to his directions. He showed that the ratios of the circumference of the circle to its diameter is approximately $22/7$. Apollonius was to conic sections what Euclid was to elementary geometry and published a treatise on that subject containing all propositions discovered by his predecessors together with others discovered by himself. Hero was known for several applications of mathematics to mechanics and discovered also the well-known formula for the area of a triangle, viz., $s(s-a)(s-b)(s-c)$. Finally Ptolemy was the astronomer whose work had such a great vogue for sixteen hundred years up to the time of Copernicus. He was also a geometer and discussed the accepted theory of parallel lines and also discovered the theorem known after his name about the inscribed quadrilateral. I have mentioned very few names for want of space. After Ptolemy, and, in fact, under the Empire, one may say that science lost its vigour for a time until the thread was taken up by the Arabs once more. There were, of course, some names, but they contented themselves generally with writing commentaries on the classical text-books. Among these we may mention Hypatia and her father Theon, Proclus, Pappus, &c.

Among the Hindus geometry did not attain such a logical development as among the Greeks. They soon transformed their geometry into mensuration and trigonometry. Problems in mensuration they could do very well and they were acquainted with Simpson's rule and the prismoidal formula. Brahmagupta discovered the formula for the area of a quadrilateral inscribed in a circle though he thought that the formula was true of any quadrilateral. Bhaskara rates him severely for his mistake saying that he who asks for the area of a quadrilateral giving only its sides is an ass, and he who answers such a question is ten times one. Hindu writers were generally content with getting at the result without examining too critically the method of getting it. Thus they had no hesitation in multiplying four lines although the resulting product has no geometrical meaning, a process at which Euclid will turn in his very grave. In one case for the proof of a rule an author simply draws a figure and says merely "Look." This word "Look" gives an accurate idea of the Hindu progress in geometry. In trigonometry on the other hand the Hindus were the great pioneers. They considered the trigonometrical ratios just as we now use them. The history of the word *sinus* or *sine* is very interesting. This function of the angle was called in Sanskrit *ardhajya* or more simply *jya* or *jiva* meaning the string of a bow. The Arabs in transliterating the last word wrote it *jib* which, however, is written in Arabic in

the same way as *jaib*. Now *jib* has in Arabic no meaning but *jaib* has. Hence the Arabs read that word in the familiar way as *jaib* which in their language means *bosom*. When these Arab books came to be translated into Latin the translator thought that the word was intended to mean *bosom* and so put down *sinus* as its Latin equivalent. The Hindus also knew a fair amount of spherical trigonometry. In fact it is the latter that is primarily used in astronomical calculations, and for these only it is that they studied mathematics. In fact their astronomical text-books almost always contained a few introductory chapters on mathematics.

I shall close with a few words on the three celebrated problems of ancient geometry and on the theory of Parallels. These three problems are the Duplication of the Cube, the Tri-section of any Angle and the Quadrature of the Circle. The first was how to find a cube whose volume is double that of a given one. It is said that a dire plague was once raging in Greece and people vowed to Jupiter that if he stayed it, they would dedicate to him an altar twice as big as his original one. But when mathematicians were consulted they could not work it out and the plague raged more furiously than ever. The subject of the second problem explains itself. Both these problems can be solved very easily by means of conic sections, but they have now been proved insoluble by the methods of elementary geometry. The last problem had for its object the finding of a square whose area is equal to that of a given circle, in mathematical language it means simply the finding out of a construction by means of the ruler and the compass for quantity. This problem has been only recently proved impossible by Lindemann. The way in which this conclusion has been arrived at is not easy to explain in a popular lecture. Shortly speaking it may be said to be founded on the following principle. Euclid's constructions are virtually the same as the solution of a quadratic equation in Algebra. If algebraically a problem can be reduced to the solution of quadratic equation then the problem is soluble by Euclidean geometry. If it requires the solution of an equation of an higher degree, it is generally not so. I say "generally" because some equations of an higher degree can be reduced to quadratics. Hence it requires very abstruse algebraical considerations to determine whether a given problem is soluble by Euclid's geometry. In the case of the first two problems the required equations are of the third degree. In the case of the last problem the required equation is transcendental and cannot, therefore, be solved even by means of any algebraic curve. The last problem specially has exercised a curious fascination over several persons apparently on account of its insoluble nature. Several supposed solutions have been offered by persons who even did not know the conditions of the problem. Of course such circle-squares can never be exterminated like people who maintain that the earth is flat or that the moon is made of cheese. For the purposes of mathematicians these problems have been once for all set aside. It must, however, be said that the attempts to obtain their solutions have been the occasion of a very large number of mathematical discoveries, and they once more illustrate the remark that a wise man's mistakes are more useful than the success of a fool.

There is only one other point in elementary geometry that I want to notice, viz., the theory of parallels. It had been often observed that the parallel axiom was really no axiom at all in the sense of being self-evident. Attempts were, therefore, made to prove it. These attempts were all failures. The humbler attempts to replace it by a simpler axiom were partially successful, and in particular we may enunciate two axioms (really self-evident truths) which may replace the twelfth axiom of Euclid viz., (1) two intersecting straight lines cannot be both parallel to the same straight line, and (2) there exists a quadrilateral figure with all its angles right angles. After so many failures the idea almost simultaneously struck several mathematicians which perhaps if a geometry be constructed which excluded this axiom altogether but otherwise logically consistent, it may lead to some absurdities. On this hypothesis what are now called non-Euclidean Geometries were invented, but they did not show any logical absurdity and were quite consistent. It follows, therefore, that the parallel axiom of Euclid was not really a necessary consequence of the reasoning powers of man but was merely a property of ordinary space if at all. The great men whose researches led to this result were Gauss, Lobatschewski, and the two Bolyais (father and son). Their researches set at rest for ever the vexed problem of parallels and have opened up the modern theory of elliptic and hyperbolic geometries.

In a popular lecture it is not possible to give any details and even were it possible, it would be inadvisable in the case of such a technical subject as mathematics. Even as it is, I have possibly gone above the mathematical heads of several of my kind audience and only crave indulgence for the mistakes in the attempt to show that the history of mathematics is perhaps more interesting than the subject itself. I have always thought that the dreaded subject of mathematics can be made somewhat interesting by considering it to some extent in its historical aspect, and if this idea obtains consideration, I shall feel amply rewarded.

News and Notes.

INDIAN.

Grant for New Rural Schools:—A sum of Rs. 1,47,555 has been allotted from the provision of Rs. 5 lakhs under "Adjusting heads—Contributions from Provincial to Local," for the payment of grants to District Boards, in order to enable them to meet the cost of maintenance in the current year of new rural schools opened in 1906-07 and to be opened in 1907-08.

The grant will be distributed as shown below:—Anantapur, Rs. 1,098; North Arcot, Rs. 9,784; South Arcot, Rs. 4,978; Bellary, Rs. 4,013; South Canara, Rs. 1,418; Chingleput, Rs. 5,214; Coimbatore, Rs. 8,292; Cuddapah, Rs. 5,863; Ganjam, Rs. 9,272; Godavery, Rs. 5,502; Guntur, Rs. 4,880; Kistna, Rs. 11,088; Koraput, Rs. 576; Kurnool, Rs. 2,642; Madura, Rs. 6,865; Malabar, Rs. 4,997; Nellore, Rs. 1,876; the Nilgris, Rs. 1,258; Salem, Rs. 7,662; Tanjore, Rs. 15,657; Tinnevely, Rs. 7,309; Trichinopoly, Rs. 11,659; Vizagapatam, Rs. 15,642; Total, Rs. 1,47,555.

The Accountant-General is authorised to place these amounts at the disposal of the local bodies concerned. These allotments will, however, be provisional and will be subject to adjustment with reference to the actual cost of the establishments as finally sanctioned.

Presidents of District Boards are requested by the Government to see that the funds ordered to be placed at the disposal of the various District Boards to meet the cost of maintenance of the new rural elementary schools are adjusted at an early date.

The special attention of the District Boards is drawn to the fact that capitation grants were admissible under Rule 83 of the Educational Rules are payable only to trained teachers and that they should secure competent teachers for the establishments on the scale of pay now approved.

Dommeti Narasiah Chetty's Hostel, Amalapur:—The teachers, students and the gentry of Amalapur and its adjoining villages met on the 10th instant, under the presidency of J.A. Yates, Esq., M. A., Inspector of Schools, I Circle, to formally open the Hostel in connection with the Local Board High School brought into being through the efforts of the Headmaster and the munificence of Mr. Dommeti Narasiah Chetty, a wealthy native of Bodasakuru, whose enlightened liberality had already manifested itself in the liberal endowment of over Rs. 5,000 towards the founding of a Lower Secondary School for Perin Brahmin Agraharam in his neighbourhood. Mr. Yates after a short but pithy address dwelt on the manifold benefits of a hostel and declared the hostel open. In thanking Mr. Yates for this presidency, Mrs. Yates for her presence, Mr. Chetty for his philanthropy, the Headmaster, Mr. T. V. Srinivasa Aiyar, B.A., L.T., expressed the hope that with the official support of Mr. H. L. Braidwood, the kind-hearted President of the Taluk Board, and the financial support of Mr. Dommeti Narasiah Chetty, the hostel then started in a rented house would soon become possessed of a building of its own, in front of the School.

In the latest issue of the *Jarida* the Nizam's Government have published an Order directing that the Nizam's College should not in future be under the administration of the Director of Public Instruction but under that of a Committee. It is not clearly shown what has given rise to the change in the administration of this important College, but it is stated in well informed circles that, owing to abnormal delays caused in obtaining the orders of Government, in regard to proposals or suggestions sent up by the Principal, it has been decided to separate the College from the rest of the Educational Department.

Miss Gillingham is resigning her appointment in the Teachers' College at Saidapet from November next, on account of her marriage and the Kindergarten work there will doubtless suffer. Miss Gillingham is we understand publishing a book on Kindergarten, which we are sure will be most useful to students who are under training. We also understand that the book will be translated into Tamil.

Three promising Mahomedan youths of Amritsar are about to proceed to England. Mr. Inayat Ullah, M. A., who highly distinguished himself this year in Mathematics, goes for the India Civil Service. He intends to become a Barrister-at-Law as well, Shaikh Abdur Rachid, son of Shaikh Aziz-ud-Din Guraja goes to the Leeds University for technical education. He also intends to become a Barrister-at-Law. The third gentleman, Mr. Sufi-ud-Din Kitchlu, proceeds in order to be called to the Bar.

One graduate belonging to the ruling class has applied for the Maharaja's permission to proceed to England to study Mining. This is the first instance of a Mysore aristocrat crossing the Kalapani.

Anent Colonel Love's Retirement. The following Government appreciation appears in the *Fort St. George Gazette*.

The Governor in Council, on the occasion of the retirement of Colonel H. D. Love, R. E. desires to express his appreciation of the services rendered by that officer as Principal of the College of Engineering a post which he has held for twenty-seven years. During this long period the College has been well administered, and in many respects improved. Colonel Love's literary labours also merit the thanks of the Government. His researches among the old Madras records have thrown much light on the history of the Presidency. The Governor in Council regrets to lose the services of a valuable public servant.

The Dowan of Mysore is said to be contemplating a scheme for establishing in Bangalore a Sanskrit University for Southern India. Temples and other richly endowed religious institutions will support the University, His Holiness Sri Sankaracharya of Sringeri taking the lead. A building costing about half a lakh of rupees is being constructed. Arrangements for residential quarters and a library are under consideration. The whole scheme will cost about three lakhs.

Doctor Larshon, American specialist in Manual Training, has arrived in Bangalore on a remuneration of £350 for six months, and has opened a class at the Seshadri Memorial Institute with four students, who are mostly teachers in mofussil schools. Working in metal, wood-turning and carving are taught. Nature study in plant life will also be taught. The experiment will continue for six months. The scheme is said to cost the State Rs. 48,000.

The District Boards of Madras have been granted, out of the special grant of 6 lakhs, in aid of Primary Education, a sum of Rs. 1,47,555 in order to enable them to meet the cost of the maintenance, in the current year, of new rural schools opened in 1906-07 and to be opened in 1907-08.

Mr. Seshadri Iyengar, who was deputed by the Government of Mysore to America for studying electrical appliances, has returned, and has joined duty at Sivasamudram.

Under the impetus of the recent Madras Educational Exhibition, it is proposed to organise a similar, though smaller, Exhibition for the North Arcot District.

The Syndicate of the Calcutta University have decided to appoint a sufficient number of competent Inspectors for periodical inspection of all recognised schools by the University. They applied to the Secretary of State for sanction to appoint additional Inspectors, and the scheme has only recently been approved. In the meantime, pending such appointment, it was thought desirable to appoint temporarily for one year seven Inspectors, four from West Bengal, two from Eastern Bengal and Assam and one from Burmah and the respective Governments have been invited by the Syndicate to supply them with their own men.

The Senate of the Calcutta University have appointed Mr. T. H. Holland, F. R. S., F. G. S., as an University Reader on the subject of the General Geology of India. The Vice-Chancellor, in putting the proposal before the Senate, remarked that there was no one in this country equal to Mr. Holland in his knowledge of this subject.

On the 23rd August Mr. Satya Saran Sinha left for America, and Messrs. Birendra Nath Dutta, Rajendra Nath Sen, and Surendra Nath Bose for Leeds, for technical education.

Mr. Chowdry who is engaged at present in researches in the realm of Astro-Meteorology, hints that a careful study of Indian astrology reveals the fact that the ancients were not altogether unjustified in their insistence on avoiding journeys and ceremonies on particular days and hours astronomically known as inauspicious.

The Secretary of State has sanctioned a local allowance of Rs. 200 per mensem to the Assistant Director of Public Instruction, Bengal.

The Government of Bengal have agreed to purchase from Rai Sarat Chandra Dass Bahadur the MSS. of the History of the Dalai Lamas in Thibetan—a very rare book—at about Rs. 700. The MSS. will be included among the India Office Records.

The Tagore Law Professor for 1909 will be required to deliver a course of not less than 12 lectures on one of the following subjects:—(1) Mercantile Law and Usage, including the Law of Sale of Goods, with special reference to British India; (2) Codification in British India; (3) The General Principles of Hindu Jurisprudence.

FOREIGN.

Switzerland can boast of a Lady Professor in the person of Mele Gertrude Woker, the daughter of Professor Woker, one of the first scientific men of the day. It is two years since the lady passed her final examination with honors, being then only twenty-four years of age. In the interval she has been lecturing at Berne University on chemistry and physics. These lectures have been a great success, while the lecturer herself has been quietly going on with her studies with the intention of taking up scientific research.

The Lancashire Education Committee has issued circulars to school managers informing them that the authorities consider it desirable to establish school-gardens. Six pounds a year will be granted to elementary schools where there is a qualified teacher to give instruction in gardening, and the latter will receive five pounds a year for giving it. The plot used for gardening must not be less than 400 square yards. The educational authorities in India, might profitably follow the excellent example set by Lancashire.

It is said that the only blind librarian in the world is Miss Jennie Burbier, who acts in that capacity at Lynn, Mass. Although afflicted from childhood, Miss Burbier is an accomplished musician and an adept in the art of the Braille system, for she has not only translated books into Braille, but has taught several blind people to read and write from it. It is through the generosity of a private individual that a section of the public library at Lynn is solely devoted to books for the blind. It is over this section that the clever Miss Burbier has control.

EYESIGHT AND EDUCATION.

THE LONDON COUNTY COUNCIL PROPOSAL.

The London Council have been asked to adopt a rather extraordinary course in regard to children with defective eyesight attending the schools under their control. The recommendation of the Education Committee is that children with defective sight unprovided with glasses shall be excluded, and that in six of the worst cases the parents shall be summoned for the non-attendance of the children.

The Committee state:—"The principle that a child shall attend school in a condition such as to enable it to take advantage of the educational facilities afforded is now well established." But although this principle has been well supported in the case of verminous children, the Committee are by no means certain how the Metropolitan Magistrate will view their proposed action with respect to defective vision. At present, it is pointed out by the Committee, the choice in a certain number of cases lies between compelling the children "to do work which may permanently damage their sight or excluding them altogether from the benefits of education."

This view was strongly supported by several authorities on the eye, seen by a press representative. "It is very cruel," said one, "to keep a child at educational work whose vision is deficient. If a child's eyes ache or are sore, its whole system must be disorganised, and therefore it is quite incapable of being applied to school work." The education authorities have however put

difficulties in the way of the parents in the past. A notice was issued to parents telling them that opticians were unreliable in the matter of fitting spectacles.

"But the ordinary working man cannot afford to send his child to an oculist, of whom there are but a few hundreds in the kingdom, whereas they would willingly pay for the glasses. The oculists, aided by the hospitals, cannot cope with the difficulties of sight testing, and this arises very much from the fact that the work that ought to be done by the optician is now largely done by the oculist.

CO-EDUCATION IN ENGLAND.

MIXED SCHOOLS.

Visitors to the United States have often returned to England with glowing accounts of the excellent results obtained by educating boys and girls together in public schools, and the members of the Mosely Education Commission expressed themselves almost unanimously in favour of the system. In England, as far as elementary teaching is concerned, there has been much co-education, but the first attempt to provide a public school giving higher, or secondary education to boys and girls has only just been made. A fortnight ago the school buildings at Harpenden, near St. Albans, which were for a short time occupied by the Imperial Service College, were formally opened as the first practical embodiment of the ideas of the Co-educational Public Schools Trust. The members of the Trust are convinced that the best education is that which boys and girls receive together, but, although they are men well qualified to speak on the subject, it will probably be a long time before their views are generally accepted. They maintain that among the effects of the system which they have undertaken to illustrate are, for girls, greater openness, less self-consciousness, wider interests, and more *esprit de corps*, and, among boys, diminished idleness, less cruelty, less false shame and awkwardness. But the greatest claim of all is that the system fosters morality. The ideal is so lofty that criticism becomes difficult; even the incredulous may be converted by the example of America to believe in the moral advantages of the system, but they will in all probability wait until they see what English teachers can do for English boys and girls under the new conditions before they send their children to a "mixed school."

VACATIONS AND THEIR PROBLEMS. It has often been pointed out that children spend but a small portion of their time in school, and that home environment is at least as potent a factor in the development of character as instruction in school. No doubt parents are to some extent aware of this, and the more conscientious take care that the long summer holidays are not simply devoted to idling and amusement, for nothing can be so valuable in the development of mutual confidence between father and son as companionship. But poor children, whose parents are at work during the day, find the holidays a dull time, and are driven to make a playground of the streets. Anything which is done to alleviate the harm done by this state of things is to be commended, so we have pleasure in stating that more than thirteen hundred children have been invited to join the vacation school at the Passmore Edwards Settlement in Tavistock Square this summer. This is the sixth year of its existence, and we are glad to note that the excellent example is being followed in other places. The essential requisite for such institutions is that they should not be too like the ordinary school. The children should be taught useful manual accomplishments like carpentering, while amusements of all sorts should be provided. The only thing that must be insisted upon is a regular attendance; if a favour of this kind is not appreciated it should be withdrawn and offered to somebody else. It is gratifying to think that so many helpers have been found willing to take such work in hand: though comparatively unorganised and quite unofficial it is just as important as the courses of instruction prescribed by the code.

Reviews of Books.

An Analysis of the English Law of Evidence.—Published by T. Venkatachalam Iyah, Law Publisher, Godown Street, Madras, 1906.

We have carefully read through this book. Besides containing an analysis of "Best on Evidence", it throughout refers to the corresponding sections of the Indian Evidence Act and briefly summarises the leading English Cases on the subject and the differences between the English and the Indian Laws. The Analysis so far as we have been able to examine is good and accurate. It is far better than a mere catechetical summary of Best's well-known treatise. Its great merit appears to us to be that it does not seek to be a cram book. We agree with the compiler in thinking that it ought by no means to be used in place of Best's work. Its lucidity and clearness ought to, on the other hand, read the student to appreciate the lengthy arguments and criticisms of Best all the more easily. We have, no doubt, that the book will prove useful to the B. L. candidates for whom mainly it is intended.



The Indian Journal of Education.

Vol. XLVII.
Old Series.

OCTOBER, 1907.

Vol. XVI.
New Series.

I.

Authority and Reason.

A. SUBRAHMANYA AIYAR, B.A., L.T.,
(Professor, Rajahmundry College.)

It is my object in this paper to discuss "Authority and Reason" in respect of their relative claims on our attention in the formation of our opinions and the regulation of our conduct. It must have fallen within the observation of most of us that people attach undue importance to one of them in preference to the other, and attempt to vindicate its exclusive claims to be listened to with respect, without caring to inquire into its limitations and without in the least suspecting that the other might contain immense possibilities for saving us from error and pointing us the way to truth. On the one hand, it has been said that Authority ought to be the sole guide in all our actions, that Reason may be listened to only in so far as it is able to harmonize its dictates with those of Authority and that the overthrow of Authority is apt to unsettle Society and land it in utter chaos and confusion. On the other hand, we have heard it clamorously urged that Authority ought to have no place in the formation of opinions and guidance of conduct, and that nothing should be accepted as true, however much it may possess the sanction of Authority, which has not been in the first instance made to pass through the crucible of Reason. In this age of advancing science when our young men are taught to reason about things and satisfy themselves about their truth, a distinctive tendency has grown up among them to overdo the instruction thus given and to reason about anything and everything. They go to the length of discrediting Authority altogether and supposing that there can be no sphere of thought or activity where it can exercise any wholesome influence, and no special circumstances or occasions justifying our appeal to it and our adherence to its mandates. Both are grievously mistaken. The advocates of Authority are mistaken

in supposing that Authority ought to be allowed to exercise the exclusive privilege of influencing the realm of thought and conduct. The advocates of Reason are equally mistaken in supposing that Authority is blind, antiquated and effete, and that Reason alone ought to be allowed to exercise undisputed sway over the thoughts and actions of men. Both have their own uses, and their own respective spheres of influence. Each ought to be viewed as a handmaid to the other, and not as antagonistic to it. But, both are liable to be abused.

A few words as to what I mean by Authority and what by Reason, will not be out of place. By Authority I mean that group of factors in a Society which, in matters educational, social, moral, literary, scientific, religious, etc., claim to possess, and are generally looked upon as possessing the key to all knowledge, and hence enunciate opinions and practices which are expected to be accepted implicitly on trust. There is Authority in every Society in regard to every subject-matter, and the question is, how has that Authority come into existence, and under what limitations should it be allowed to operate. I exclude from my discussion all considerations of that Authority which has legally the power to enforce obedience or acceptance. By Reason I do not mean that Universal Reason of philosophers which is alleged to permeate through External Nature and also to be reflected in Man. I mean only that discursive faculty which is found in every man and by the exercise of which he reaches conclusions from accepted data.

Authority appears in Society in various forms. One type of it with which we are all most familiar is *Parental Authority*. The child becomes saturated with the spirit of the Family intellectually, morally and spiritually, and until the age arrives when other types of authority begin to operate upon it, the father and the mother are depended on for information and guidance. But when the child grows into a boy and when the boy goes to school and thus comes under the sway of other forces, he is able to gather more information than ever about natural phenomena and their causes, and also feels the delight of power which knowledge thus gained naturally brings with it. He is trained to observe, to manipulate, and to reason about the causes of things and their consequences, and from the stage in which the whiteness of the milk is inferred from the whiteness of the cow, he passes on to higher and higher stages of reasoning until the improved ability which he has thus acquired of arguing out things for himself begets in him the idea that he should no longer take things on trust, but should verify them in the light of his own data and seek other confirmatory

evidence wherever such evidence may be possible or necessary. In this idea he is encouraged by the very frequent errors into which he is plunged owing to his accepting the statements of others as true without exercising discrimination as to who are competent to give advice and who are not. In view to this possibility of his accepting errors for truths, he is also instructed by his teachers to verify, as far as he can, whatever is presented to him as truth. This spirit develops, but develops to an extreme which renders the exercise of it altogether undesirable. Even Parental Authority receives scant courtesy owing to this spirit of excessive reasoning. If the father happens to be uneducated, he does not certainly offer to direct the son in matters of school learning but there are other matters in regard to which he is decidedly an authority to him. There are certain tribal rules and practices which have stood their ancestors in good stead as regards self-preservation and race-maintenance under the conditions under which they lived, and which, having reached them traditionally, deserve to be practised in so far as the same conditions continue to prevail. In such matters and in others concerning the boy's health, the father is certainly an authority. If the father happens to be an educated man imbued with the influences of the prevailing civilization, then, it goes without saying that there is no greater authority for his son than he. In regard to manners, morals, conduct in practical affairs, literary and scientific truths, he is the best fitted to give him the needed guidance and exercise proper control.

Along with this Authority I may consider another type of it which is closely allied to it, and which is exemplified in the schoolmaster. This much abused being is interested in the intellectual and moral welfare of the boy quite as well as the father though the motives which prompt his interest in his welfare are rigorously dry, and wanting in that divine element, *viz.*, paternal affection. There are no doubt those that say that the absence of this element of affection is a distinct advantage to the schoolmaster so far as discipline is concerned, but I am inclined to think that in the hands of a cultured individual this element of affection must have a chastening influence on the methods of discipline adopted as well as on the modes of response elicited, and is sure to make the path of progress easy and smooth. But such a combination is rarely attained, and the schoolmaster must be left to exercise his function with what kindly feeling he can artificially develop towards his pupil. Both the father and the schoolmaster have reasoned-out commands to issue, and reasoned-out truths to teach, and so far as these are concerned, our young learner has no choice but to obey them. There are certain practical matters, matters relating to the routine

habits of life, and those relating to the solution of certain practical questions, such as, how to get out of an embarrassing practical situation, which of the several courses of action equally attractive he is to choose, which action, apparently indifferent, will have the effect of deepening virtue and which is likely to lead him to vice and so on, in regard to which our young pupil should allow himself to be guided by them. There are other matters, again, in regard to which our authorities may have sound instructions to issue, instructions not explicitly supported by reasons, or of the reasons of which they are not explicitly aware while of the soundness of which they are implicitly convinced, but instructions intended to be promptly acted up to. Such instructions exemplify Authority in the strictest and the narrowest sense of the term as opposed to Reason. It is said of one *Hume* that he was a man of very wide practical experience, and people that found themselves in any practical difficulty, and did not know how to act because multiplex considerations pulled them this way and that, used to go to him for advice. It is said of him also that he solved every practical problem that was thus taken to him, and definitely showed in every case the way out of difficulty. But if he was ever asked to give his reasons for any practical solution, he would say, "I don't know, I can't say." Such is the case with men of vast experience, and such instructions coming from the authorities we are now considering ought to be implicitly obeyed also. It may be thought that the teacher is expected to give satisfactory reasons for an opinion or an order. Yes. Generally he does; and the reasons in most cases lie also on the surface; but if ever he is unable or for some reason unwilling distinctly to formulate his reasons for it, the pupil cannot in fairness set his undeveloped reason to work as against his master's order and show a spirit of reluctance to abide by it. Such a spirit is the ruin of the intellect and the bane of character. As a human being, the master is also liable to err; but it must always be borne in mind that if he errs in one case, he gives the pupil excellent advice in a thousand cases and teaches him precious truths. The barest respect for his feelings and the barest gratitude to him require that his wish or order should be respected on the spot, and a representation made to him afterwards for redress of the grievance, if it is thought that any real grievance is involved in the case.

I will next proceed to consider some of the other forms in which authority manifests itself, besides the institutions of the Family and the School. The great master minds in Literature, Arts, Science and History are authorities in their special branches of learning, and unless one has acquired mastery over any particular branch of learning oneself and can

conduct original research oneself in that branch, one cannot afford to set aside the dicta of the specialist in that branch. Such authorities may perhaps be brought under the second of the forms I have already discussed. Every Society organises education in order that the younger generation may be equipped with all the knowledge it has itself gained from the preceding generation and all that which it has itself been able to acquire by its own efforts. There are also certain educative forces in Society which are unorganised, *e.g.*, Public Opinion, Spirit of the Age, empiricist or rationalistic, Institutions, (social, political, and religious), Party, &c. Starting with the stock of knowledge thus acquired, the younger generation is expected to improve upon it, and by means of its own intelligence, perseverance and industry, to make new discoveries and practical inventions so as to enable the Society as a whole to rise in the scale of civilization. In this process of equipment the authorities that I have mentioned play a very important part. Public opinion is a great power in shaping the beliefs of mankind in general. What they call "The Spirit of the Age" acts unconsciously in moulding their opinions. This "Spirit of the Age" refers to the habitual modes of thinking which owing to the action of various conscious influences have become characteristic of all minds at some particular stage in their process of evolution. Institutions of all kinds, social, religious and political, are marks of a civilization which is relatively stable, and to pass through them or to be influenced by them is an education in that civilization. The social institution of marriage, for example, with its imposing ceremonials and inviolable injunctions as amongst us, practically educates an individual in the morality and religion of the civilization to which he belongs, and imparts a distinctively ethical tone to his nature. Other social customs attuned to that civilization have got a similar educative influence. The traditional code of morality that has come down to us is another inviolable authority. It is utterly ill-suited that our young men should raise the standard of revolt against these influences. Our moral code, for example, cannot be allowed to be dissected by youthful criticisms. Constant tinkering at social customs prompted by the license which their violation affords, is strongly to be deprecated. It not infrequently happens that, in its revolt from custom and convention, reason finds itself eventually employed for the gratification of individual or sectarian enthusiasms and fanaticisms. Without an adequate knowledge of the social forces and the laws of their operation, no enthusiast should ever be allowed to tamper with any social custom. Here, a question may arise,—Are we, then, to passively and uncritically acquiesce in the wisdom of all the social institutions, and submit to their tyranny even after discovering

them to be quite out of date and knowing well they are effectively retarding our progress? In answering this question, in order that my attitude may not be mistaken, I will at once say, "No." But I will take this occasion to discuss the mutual relation between Authority and Reason with a view to discover how far the preferential claims set up by either over the other are justifiable, and under what special circumstances, reason can oppose itself to authority.

Thinking is followed by action. But we frequently hear complaints that there are many people who think, think and think, but never act. This is a mistake. If they do not act in the immediate present, they may act in the distant future. If they do not act at the instance of this particular thought, this may influence another thought, and this a third, and so on, and the last thought may eventuate in action. If they do not act at all, it is because probably their thinking was conditioned by limitations special to their circumstances. Even this thinking cannot end in nothing. It must influence the thinking of other men, and this will end in action. Thus, every thought, right or wrong, terminates in action, directly or indirectly, at some place or other and at some time or other. Even the minutest difference in thinking reflects itself in a difference of conduct. But the wrong thought, for the reason that it is followed by evil consequences either to the individual or to the society, is eventually not allowed to be repeated, or dropped out of existence altogether. Trial and error have taught men in the past what is right to think, what is right to do and what is good to have. Every belief comes originally by the use of reason. Then it is put to the test of practice and if it is found to produce beneficial results, it is suspected to be a valid belief. It is tried again and again, and the practical effects, say, are uniformly beneficial. Others borrow it and try it in practice, and the results are of the same beneficial nature. It is then suspected by the community as a whole as a true belief born of right reason, and further sought to be verified. After the belief has thus stood the test of some generations, it commands the allegiance of the whole community, and becomes also the source of other truths. It is in this manner that the primary and the most important beliefs have come into existence, and it is in this manner also that the authoritative institutions and customs of a nation have come to acquire a complete mastery over the life and destiny of that nation. They were all originally conceived by reason, put to the test of practice by reason, and found by reason to be highly conducive to the preservation, maintenance, consolidation, and progress of the community in which they are found to prevail. They are now the net

survivals of the accumulated trials of past generations in regard to their practical value. The reason that gave them birth no longer comes to their support as they have come to be regarded as authoritative in the extreme and obeyed implicitly without a word of protest. If this derivation of authority is accepted, then it is clear that there is no real opposition between Authority and Reason, that Authority which is only born of Reason becomes the basis for the further achievements of the community, for the further development of the reason of its members.

But, a question may arise,—Are the beliefs, institutions and customs comprised under Authority unalterable? Can they be allowed to hold sway over the community without prejudice to its progress? The answer is, "No." But it must be noted that the conditions of every Society are in a state of constant change, and the change is so slow, gradual and imperceptible that the forces already existing in the Society get themselves easily and imperceptibly adjusted to the new conditions; so that the authoritative institutions and beliefs possess always a uniform value for the members of that Society. But, either when Authority is prevented for various reasons from assimilating the slow changes, or when there is a large, sudden, and powerful influx of forces from outside, forces of far greater magnitude than can be easily absorbed or modified and assimilated by the existing forces, then more than a simple change may be required in the latter in order that an adjustment may be effected and equilibrium restored. Such a situation is brought into existence, when, for example, one civilization receives the impact of another quite foreign to it, and has, in consequence, new forces developed in it which require a serious modification of the existing conditions. In these circumstances, the men of culture and intellect belonging to the Society will naturally be able to perceive what is the nature of the new forces, how exacting they are, and how far they should modify their views and habits of life to be advantageously adjusted to the new environment. They will also be able to perceive what changes have to be effected in the authoritative institutions and customs that have become ordinarily inviolable, and will also feel able to devise the *modus operandi* suitable under the circumstances. Here is the scope for the operation of Reason as against Authority. Individual Reason may feel diffident to cope with the situation. But the united Reason of the best intellects of the Society ought to be able to see whether reform ought to be effected by slow degrees or by a violent revolution. Right Reason, individual or collective, battles against old prejudices and replaces them by new views of life in conformity with the new enlightenment. It impugns the pretence of Authority to finality

in truth, destroys its artificialities, and questions its dogmatic assertions. It smooths its roughnesses, rounds off its angularities, demolishes its later accretions, and breaks down its inveteracy, so as to make it yield to the new conditions.

Such in brief are the circumstances under which Reason may definitely and fearlessly oppose itself to Authority. Under ordinary circumstances, I need hardly expatiate upon what Reason can and does achieve. It is to Reason that we owe our progress in general, the sifting of the old knowledge and the discovering of the new. All scientific discoveries and practical achievements are due to Reason. But I very strongly protest against the young learner's reason being exercised in scornful criticism over the accredited soundness of Authority under ordinary conditions. Such an abuse of Reason as against Authority is apt to end in many evils to Society, as Mr. Balfour points out, such as, the splitting into sects, divisions of opinion, weakened powers of co-operation, increase of strife and waste of power. Authority is the very life and basis of Society. The destruction of Authority is the collapse of Society. It will be observed that I have not discussed Political and Religious Authorities in particular, because each of them may form the subject of a separate article. Still the general principles are more or less the same. In his *Foundations of Belief* Mr. Balfour has expressed his opinion on the position which Authority ought to occupy in every Society, and the reader may be benefited by a perusal of the chapter in question.

II.

School-Hygiene.*

P. S. CHANDRA SEKHAR, B.A., M.D.

"The first requisite to success in life is to be a good animal; and to be a nation of good animals is the first condition to national prosperity."

THE ideal that should dominate all methods of instruction should be to develop the best type of manhood. Our aim should be to improve both bodily strength and mental ability. Education is only second in importance to health. The mere acquisition of knowledge is not of much value to the individual without the possession of a sound healthy body which is the first requisite for the enjoyment of this life.

The brain is the organ of thought and a healthy brain is the first necessity for a successful career. The nutrition of the brain depends upon

* A Paper read at the recent Educational Exhibition held in Madras.

an abundant supply of pure blood. And a healthy brain can exist only in a sound healthy body.

The school-going period (5 to 16 years) is the period of the most active growth of children. Growth and development are in full force during this period. Many of the tissues and organs are immature and are likely to be damaged by faulty habits during this period. Eye-sight may be impaired, the normal growth of the body may be interfered with, deformities of the bones and the spines may be produced, infectious and contagious diseases may leave permanent defects; heart diseases, hernia, etc., may be caused by badly arranged exercises; the seeds of consumption and other diseases may be sown and hereditary predisposition to diseases may be accentuated.

Healthy habits, if implanted early in life, become confirmed by practice and are of great importance to the children as affecting their present and future health and happiness. It is during the school-going years that we should try to develop a sound constitution and even eradicate any hereditary tendency to diseases by suitable exercise, diet, etc., and healthy habits. The school authorities should provide the best attainable conditions to protect and promote the health of the pupils and endeavour to render the growth and vigour of the pupils (mental and physical) as perfect as possible. In order to enable the teachers to safeguard the health of the pupils under their charge, it is necessary for the teachers to be acquainted with the principles of Psychology, Physiology and Hygiene.

The importance of a knowledge of Hygiene and Physiology to teachers is not sufficiently recognised in Madras. A course of lectures on Hygiene and Physiology will be a valuable addition to the curriculum in the Teachers' College.

School Hygiene deals with the application of the general principles of Hygiene and Physiology to the special circumstances of school-life. It concerns itself with:—

1. the best arrangement of school buildings; ventilation, lighting, conservancy, cleaning, etc.;
2. the provision of suitable seats, desks and other appliances for teaching;
3. the school programme of work;
4. the effects of excessive or misdirected work on health;
5. the value of physical exercise;
6. the period of rest and sleep;

7. discipline ;
8. medical inspection of the school and the pupils ;
9. the prevention of the spread of infectious and contagious diseases and in the case of Boarding Schools, the question of lodging, feeding, clothing, provision for sickness, etc.

The School-Building.

The selection of a site will, no doubt, be influenced by general considerations of cost, centrality of situation (*i.e.*, contiguity to the population to be served), healthiness of the site, and the possibility of procuring sufficient space. But the necessity for a perfectly wholesome site must always be kept in view.

The soil should be dry and free from organic pollution. If it be not naturally drained, recourse must be had to subsoil drainage. The ground water level should neither be high nor subject to frequent and large fluctuations. If the level of the ground water (same as the level of the water in the nearest wells) be high, the ground and the air will be damp ; and such dampness conduces to catarrhs, bronchitis, rheumatism and other ailments.

Under no circumstances should schools be built on made soils—(*i.e.*, soils made up by filling hollows in the ground with all sorts of rubbish.)

The proximity of sources of noise such as crowded main roads, railways, and factories where machinery is at work, are to be avoided, partly on account of the distraction caused by the noises and partly on account of the nervous strain caused thereby.

The proximity of roads is also objectionable on account of the obstruction to the light and on account of the dust that will be constantly stirred up by traffic, in the air which will thus be rendered unfit for respiratory purposes.

As adequate ventilation and lighting are matters of extreme importance and as the provision of a play-ground is an absolute necessity, the school should be built in the middle of an open space which might be used as a play-ground. Or, in other words, we should aim at a school-bungalow and not a school-house. Trees and buildings that are likely to obstruct the rays of light should not be permitted near the school-building for a distance of at least 60 feet, on two sides at least. A line drawn from the foot of the wall of the school-building to the top of the nearest building should not make an angle greater than 30° with the horizon.

Although the cost of the site and the convenience of distance, for the greatest number of pupils will mainly influence the selection of the site by the managers, due attention must also be paid to the other factors mentioned above. The size of the site will, of course, be determined by the number of pupils for whom the accommodation is desired. One calculation is $\frac{1}{4}$ acre as the minimum size for 250 children. The English Day School Code requires as a *minimum* requirement for the play-ground alone 30 sq. feet per pupil, and 10 sq. feet per head for the class-room, or 40 sq. feet per pupil on the whole.

The play-ground should be kept grass-grown and it should have a slight slope from the central building so as to prevent stagnation of rain water. The school-building should be so placed that there may be free circulation of air around it. As the air inside the building is derived from the air outside the building, it is extremely important to have the outside air pure, and the purity of the outside air is promoted by free circulation. In order to secure efficient illumination of the school-rooms the school-building should be placed as far back as possible from the street. Such a situation will also secure freedom from dust and noise. It has already been pointed out that the nearest building should be 60 feet away from the school-building. The light entering the windows of the class-rooms should fall on the opposite walls. It is not advisable to have more than two storeys to the school-building as it is tiresome for the pupils to ascend more than one flight of steps.

In the construction of school-buildings, good materials, good workmanship, firm foundations, damp-proof courses, impermeable walls and floors, and roofs that will not leak, are quite as much necessary as in the construction of other buildings. But there are a few special points in connection with the construction of school-buildings.

The current practice of renting any house for school purposes is certainly objectionable, as most of the ordinary houses are unfit for school purposes, on account of bad ventilation and inadequate illumination. A school-building should be specially constructed for school purposes on the lines laid down in this paper. But money need not be wasted in making the building ornamental. If any existing building can be altered so as to meet the requirements of ventilation and illumination I do not see why it should not be utilised for school purposes.

The school *class-room* is the unit in planning a school-building. The school-building should consist of the requisite number of class-rooms so

placed together as to permit the maximum amount of lighting and ventilation.

The Class-Room :—The size of this room is determined by the number of pupils it is intended to accommodate. The number of pupils taught by one teacher should never exceed 40 (preferably 30). The English Day School Code has laid down that each pupil should have 10 sq. feet of floor space and 120 c. ft. of cubic space. But these are not considered sufficient by the authorities on School Hygiene. In American schools 15 sq. ft. of floor space and 200 c. ft. of cubic space are allowed. Dr. Clement Dukes, the famous school doctor, insists on 32 sq. ft. and 500 c. ft. as the minimum requirements.

I think the American standards would suit best in this country. Under any circumstances the requirements laid down by the English Board of Education should be the absolute minimum.

A class-room 30 feet in length and 25 feet in width would give ample accommodation for a class of 40 pupils and would give 20 sq. feet of floor space and 220 c. ft. for each pupil. It is not advantageous to increase the dimensions of the room still more as the distance light will carry when admitted laterally, the distance the pupils can see without strain upon the eye and the distance the words of the average teacher are clearly audible, are all important factors which have to be taken into consideration.

Class-rooms for the Primary Grades need not be smaller inasmuch as the pupils require much room for the Kindergarten lessons and exercises.

Rooms for special small classes may certainly be smaller.

The general form of the class-room should be oblong with the aisles between the desks running the long way of the room. The advantages of this shape are good lighting and the ability of the pupils (even those who happen to be sitting on the teachers' extreme right and left) to see clearly and without effort the black-board, maps, etc. The breadth of the room should not exceed twice the height of the window-head from the floor.

The lighting of the class-room is a matter of extreme importance. Sanitarians are agreed that the window area should be $\frac{1}{4}$ to $\frac{1}{6}$ of the floor area or floor space, about 125—190 sq. ft. for a room 30 ft. $\times$ 25 ft. One should not judge of the adequacy of the illumination by general impressions. A room may seem well lighted when only the general illumination of the room is considered. Even on cloudy days the illumination for the desk in the *most unfavourable part* of the room should not be below the permissible minimum. The illumination should be such that a pupil can read letters

printed in double great primer (or 36 point) at a distance of 20 feet and read letters printed in diamond type without strain at a distance of 12 inches in the most unfavourable part of the room. Each pupil, as he is seated, should also be able to get a view of a bit of sky. It might be stated that the amount of illumination which is insisted upon for cloudy days may prove too much on sunny days. But it is always an easy matter to exclude superfluous light by means of shades, if in bright weather so much light enters as to produce a dazzling effect. Not only should the light be abundant but it should be well distributed and diffused so as to avoid partial shadows which are very injurious to the eye-sight. There is a consensus of opinion amongst school hygienists that the light should not enter from the front of the room as the light comes directly into the eyes of the pupils; and that the light should not enter solely or mainly from the right as this causes the pupil to look at his writing in the shadow cast by his right hand (most pupils are right handed.)

Shadows and partial shadows are injurious to the eyes and, therefore, to be avoided. The accommodation of the eyes under such circumstances would be constantly taxed to adjust itself to the different degrees of illumination on the page of the book and the eyes would, therefore, suffer injury.

The light should, therefore, come mainly (even if not entirely) from the left. Some light may come from the back, but the rear windows must not admit so much or so strong a light as to overpower the main light from the left. Otherwise the pupils would be working in partial shadows.

In very bright weather the left windows may have to be partially shaded to shut out the direct rays of the sun. Then rear windows would be particularly useful in lighting the room with diffused light. But the window sills should be five feet above the floor so that the light may fall down. Rear windows might be objected to on the ground that the light will fall directly on the teacher's eyes. But this need not be a serious objection inasmuch as the teacher may change his place frequently.

Sometimes it may not be possible to get sufficient light from the left windows even when supplemented by rear windows. In that case there are two alternatives; one is to use ribbed glass panes for the windows and 'luxfer prisms for roof lighting if the class-room is a single storeyed building to increase the amount of illumination; and the other is the use of windows on the right. Of these the first alternative is not practicable in this country as the appliances are not available. The windows on the right, whenever they are necessary to supplement the light from the left, should be about 7

or 8 feet, above the floor so that the light may fall down. In fact such illumination would resemble roof lighting to some extent. If the windows be so high, the light from the right will not be stronger than the light from the left and there will be no partial shadows on the desks.

As alternate bands of light and shadow are injurious to the eyes, the windows should not have much space between them. The piers between the windows should be narrow and their sides should be bevelled instead of being rectangular, so as to admit a large quantity of light.

The windows on the left—the main windows—should be $3\frac{1}{2}$ or 4 feet above the floor, so that the light entering the lowest part of the window may not produce reflections from the tops of the desks or be on a level with the eyes of the pupils when they are seated. The windows should have no arches at the top (arches diminish the amount of light that enters the room) and should extend up to within $\frac{1}{2}$ —1 ft. from the ceiling. The windows may be $3\frac{1}{2}$ feet in breadth and 8—9 feet in height, and the last window on the left may be placed 2 or 3 feet in front of the rear wall.

The windows should have preferably two sets of doors, one set of the usual wooden ones, and another set of glass doors with the least amount of wooden work which can be shut during rain and wind. Iron bars are unnecessary and undesirable in school windows. The class-room should have two door ways 4 feet in breadth on opposite sides of the room with the doors opening outwards so as to permit of rapid evacuation of the room. A narrow verandah with a high flat roof (or with a very slight slope) all round the class-room is desirable for protection from sun and rain. The verandah will also be useful for keeping the shoes and umbrellas of the pupils. The lower edge of the verandah roof, if it happens to slope, should not be lower than the top of the windows.

The outside walls of the room after being plastered should be colour-washed pale-red, yellow or grey. A white surface would reflect much light and produce a glare, while a dark external surface in this country would make the walls excessively hot.

The inner surface of the walls may preferably be painted so as to be washed frequently. The paint, when put on, should be stippled so as to prevent reflection. There should be no gloss about the walls. Or the inner surface may also be colour-washed. The colour of the inner surface of the walls should be some light green as near to white as possible, as the green colour is restful to the eye and as the contrast between the light reflected from the green surface and ordinary diffused day light is less for the eye

than the contrast between the latter and the light reflected from any other colour. The colour of the window blinds should be the same as that of the walls. (A mixture of Antwerp blue and raw Sienna with a white base is said to yield the proper tint.)

The lower three feet of the wall surface may be darker in colour in order to soften the light at the level of the eyes.

Venetian doors and blinds are to be avoided in the class-rooms. And direct rays of the sun should be excluded from the rooms.

In this country class-rooms should preferably run east and west so as to have the main left windows on the north or the south.

As it is difficult to clean angles from dust there should be no angles round the corners. The corners should be rounded off in the forms of a curve.

Impermeability of the floor is, of course, necessary to facilitate washing and to prevent ascent of moisture from the soil.

The class-room should not only be well lighted but also be well ventilated. Impure air is a frequent cause of sickness, and almost every form of disease is accentuated by the respiration of impure air. Drowsiness, languor, frequent yawning, inability to concentrate the attention and slowness of intellectual effort are some of the immediate effects of respiring the air in ill-ventilated school-rooms. When the impurity is great, headache, sickness, and loss of appetite may be produced.

The remote effects of constantly breathing impure air, are general deterioration of health, dullness, apathy, and increased liability to disease particularly consumption of the lungs. As the respiration of the impure air is thus highly prejudicial to health, adequate ventilation of school rooms is highly important.

The condition of the purity of the air inside the class-rooms may be tested in two simple ways.

The Smell Test :—The Inspector, after remaining for sometime in pure open air, should rapidly enter the room and notice the odour if any. The ventilation may be regarded perfect, if the air does not differ sensibly from the outside air. There should not be a close and unpleasant odour.

The Lime-Water Test :—If an 8 ounce bottle previously filled with clean water, preferably distilled water, be emptied in the room to be examined, the air of the room will replace the water in the bottle, or in other words the bottle will be filled with the air of the room. If now

5½ drachms of lime-water be poured into the bottle and if the bottle be well corked (protected with wax if necessary) and shaken and set aside for six hours, the condition of the lime-water after six hours would reveal the condition of the purity of the air. The lime-water will be clear as before, if the air be of the standard purity. But it will be turbid if the air contains more than the maximum admissible respiratory impurity. Ventilation is carried on in this country mainly by perfilation. The wind blows through one set of windows and doors and sweeps out the impure air in the room through the opposite openings replacing the foul air inside by the fresh air from the outside. And the outside air in the neighbourhood of the schools is not likely to be pure and free from dust unless the school-building is some distance away from roads, factories, etc. Ventilation by perfilation will be carried on by opposite open doors and windows.

As windows are provided for illumination and as the doors are placed on the opposite side no special provision is necessary for the ventilation of class-rooms in this climate. A few small windows placed high upon the right side of the pupils will still further aid ventilation.

The school-building should consist of the requisite number of class-rooms built on the lines suggested above and properly disposed as regards lighting and ventilation. The rooms may be in a single line (either in one or two storeys) if there be sufficient space, or in groups of four rooms (either in one or two storeys) separated from each other by a space of 60 feet. In the latter case, the corridor should be 9 to 12 ft. wide. The class-rooms should never be used as passages. In addition to the class-rooms, there should be a large hall and a laboratory. The large hall should be large enough to provide four square feet floor space for each pupil for whom the school is recognised. The hall must, of course, be fully lighted and ventilated. It should accommodate the whole school. Such a room will be needed for examinations, speeches, evening lectures, and entertainments, and for stocking museum specimens, books, etc.

A lecture-room larger than the class-rooms (1½ to 2 times the size of the ordinary class-room) with an adjoining room for apparatus is necessary for holding the science classes. The principles of construction are the same as those of the class-rooms. But the seats in the science class-rooms should be arranged in a gallery.

When the school-building is in two storeys the staircase should be 5 feet wide and be broken by an oblong landing after every ten steps. The best height and breadth of the steps are 6 inches and 11 inches respectively. In addition to the railings on the two sides to prevent accidents, the

staircase should be provided with hand rails or rods to grasp in passing up and down. Triangular and winding staircases are objectionable.

A description of the school-building would be incomplete without some remarks on water-supply and conservancy. Pure drinking-water should always be available for the pupils. A small room with a number of pots, filters and clean vessels should be put in charge of a conscientious man, who should boil the requisite quantity of water, filter it and store it in clean earthen pots for distribution. The clean water-pots should have taps at the bottom, or the water should be taken out by tumblers having long handles (as in the case of Burmese spoons) so that the hands of the waterman may not come in contact with the clean water. All pots should certainly have lids. Boiling is by far the best method of purifying water. In the case of turbid waters the suspended impurities may be previously removed by the addition of alum to the water in the proportion of 4 grains to the gallon, (about 12 or 15 grains to a pot) of water. The addition of alum throws down the suspended impurities which settle down in a few hours. The water should subsequently be poured off into another pot, in which the water can be boiled. The boiled water may be used after cooling, or may be preferably filtered through clean sand and charcoal (to be washed every 3 or 4 days) and then be stored in clean pots.

The latrines should be situated at least 20 yards away from the school-building. The urinals should be separate from the privies, if possible. 5 per cent. of urinal accommodation and 5 per cent. of privy accommodation should be provided. Both urinals and privies should be cleaned twice a day. Horbury's patent latrine is a very suitable latrine for schools, as it provides shelter from sun and rain, affords privacy and prevents contamination of the soil.

The school dust is very prejudicial to health. The school should be thoroughly swept at the close of every day (the windows being kept open all the time.)

The floors should be swept with a wet mop, after sweeping. And the desks, seats, etc., should be thoroughly dusted. Subsequent to this cleaning the windows and doors should be closed. Every morning the desks and seats should be wiped with a wet cloth.

Periodical cleaning and washing of the walls and floors are necessary during the holidays.

School Appliances.—Short-sightedness is produced almost exclusively during school life, either by the development of a pre-existing tendency or by the actual generation of the defect in cases where there is no predisposition. The question of eye-sight is intimately connected with the construction of the class-rooms and the arrangements for lighting, the use of suitable seats and desks, the use of suitable books, correct posture in writing, etc.

Short-sight is not merely an inconvenience to the child but also the source of eye strain, headache, ill-health, and deformities, on account of the efforts of the pupil to assume a posture favourable to clear vision. The ideal form of the class-room, from the point of view of illumination, has been already described. The question of desks and seats will now be gone into.

The desks and seats should be placed as near the left windows as possible, thereby leaving a wider aisle on the right which will afford room for the pupils to pass each other on the way to the black-board and space for some of the school exercises for children. (It may be pointed out incidentally that frequent black-board exercises are very valuable in giving relief to the pupils who might have been sitting too long.)

The black-board should be so placed as to avoid reflection of light from its surface which would render writing on it illegible. It should be to the left of the teacher. The black board about 4 feet in width should have a black, smooth, unglazed surface. It should be two feet from the floor for the lower classes and 3 feet from the floor for the higher classes. It is advisable to have some arrangements at the bottom to catch the crayon dust that falls down and thereby lessen the stirring up of the crayon dust by those working at the board. A wooden trough 2"—3" wide with a cover of wire-netting may be fixed below the lower edge of the board, to catch the crayon dust.

If the black-board be revolving and has two black surfaces it is advisable to use a wet rag for cleaning it, in order to prevent the dissemination of crayon dust.

Attempts are being made in Germany to introduce white boards on which the letters might be written in black, as black letters on a white surface are better seen than white letters on a black surface.

As most of the writing for the children in the first two years should be done on boards instead of slates or paper (till the finger muscles are well practised) it is desirable to convert a large portion of the wall surface in the elementary classes into wall-boards.

The teacher's platform harbours dust under it and is sanitarily objectionable. But it enables children sitting on the back rows to see the teacher's face without assuming strained attitudes in the attempt.

The platform should be only large enough to accommodate the teacher's chair and desk, when the chair is drawn well back. And it should be about 1½ feet above the ground.

The children attending a school will be of different ages and they do not all grow in the same proportion. Therefore if each child is to maintain the most correct posture when reading or writing it is necessary to fit the school desk and seat to the size of each child.

Reading, writing, drawing, etc, with improperly constructed desks may lead to deforming postures and short-sightedness. Holding the head down over the book or paper tends to congestion of the vessels of the eye and to impairment of sight. Short-sightedness is due to insufficient light, bad postures, bad print and paper and improperly constructed seats and desks. It has already been pointed out what amount of illumination is necessary and how it is to be secured. The desks and seats should be made to fit the pupils and not the pupils the desks. There is a consensus of opinion that combined seats for a number of children are highly prejudicial to health. Even dual desks would necessitate bad postures to avoid copying. In combined seats it is further difficult to avoid too close personal contact of the pupils, which favours the spread of some infectious diseases as scabies, ringworm, lousiness.

It is, therefore, necessary to provide each pupil with a separate seat and desk. Such an arrangement would no doubt require a larger floor space than when combined seats are used. But this very necessity for a larger space ought to be considered an advantage inasmuch as the size of the class will be kept down and the efficiency of the teaching will be increased thereby. The somewhat larger space required when separate seats are used will certainly necessitate louder speaking on the part of the teachers. It must be borne in mind, however, that the audibility of the teacher's voice depends not merely on loud speaking but also upon clear enunciation.

Before giving a description of the ideal desk and seat, it is necessary to say something about the correct posture for the pupils.

"The pupil will be in a correct symmetrical posture, when he sits erect, with the pelvis resting equally on the seat, with the arms besides the hips, and the head well poised so as to bring the line of direction within a line joining the seat bones.

This posture is the most economic of muscle energy and conducive to physical beauty and correct carriage."

The desk and seat ought to be so adjusted as to enable the pupil to read and write with the least possible deviation from this symmetrical posture. The ideal seat should be wide enough to support the body and not quite flat but slightly concave, the concavity not exceeding $\frac{3}{8}$ inch. The lowest part of the concavity should correspond to the seat bones and the concavity should begin $1\frac{1}{2}$ inches behind the front edge of the seat.

This concavity is necessary to adjust the surface of the seat to the surface of the sitting parts and prevents the tendency to slide forward when the pupil leans against the back of the seat. Most sanitarians insist on the necessity for a horizontal hip rest about the level of the loins to support the small of the back. The hip rest is very useful for easily maintaining a good upright posture with the minimum expenditure of energy. A central vertical rest for the back of the pupil 4" in breadth extending up to the level of the shoulder blades when seated, is also very useful to relieve and rest the muscles when tired.

When the pupil is seated, the feet should be resting on the floor, the legs should be vertical and the thighs should be horizontal. The angles at the knees should be right angles. The feet of the pupil should not dangle from a high seat. Nor should the knees be raised above the level of the thighs on account of the lowness of the seat.

The width of the seat should be 1 foot, so as to give adequate support to the thigh. A seat of greater width offers constant temptations to bad postures.

The depth of the seat should be $\frac{3}{4}$ the underside of the thigh, measured from the buttocks to the knees. If the depth be greater, the haunch bones cannot rest against the seat back.

The height of the seat should equal the length of the leg, measured from the bend of the knee to the heel.

The front edge of the seat should be rounded to prevent pressure on the nerves and blood vessels of the thigh at this point.

The Ideal Desk.—There are three positions of the desk in relation to the seat.—

Firstly.—The back edge of the desk may be in front of the seat, there being an interval between the two. In this position the desk is said to be adjusted for *plus* distance.

Secondly.—The back edge of the desk may immediately overhang the front edge of the seat. In this position the desk is said to be adjusted for *zero* distance.

Or Thirdly.—The back edge of the desk may be behind the front edge of the seat. In this position the desk is said to be adjusted for *minus* distance.

A fixed *plus* distance of the desk and seat should always be avoided. For during reading and writing, the body of the pupil will be thrown forward and the spine curved backwards and outwards. The lungs, heart and the abdominal viscera will be more or less cramped and their action will be interfered with. Further in such a posture, the muscles of the neck will soon get tired and the head will drop down. When the head drops down, the eyes will be less than 10 or 12 inches (the normal reading distance) from the book. When the eyes are habitually kept too near the book, short-sightedness will be produced. But a *plus* distance is necessary whenever a pupil has to stand up in his place. For reading and writing, the desk and seat must be set at a *minus* distance, and the *minus* distance must be greater enough (up to 4") to permit the rear edge of the desk top to touch the central part of the body without pressing against it. This position would bring the book near enough to the pupil when sitting in the symmetrical posture. But if the *minus* distance be fixed, it would interfere with the sitting down and rising from the seat. Therefore the desk top should be adjustable for large and small *minus* distances and for *plus* distance. Or in other words, the desk top should slide forwards and backwards, (for 4 to 6 inches depending on the height of the pupil). The height of the desk must be such that the pupil while writing may sit with the elbows not more than a hand's breadth from the body. If the desk be too low, the pupil must stoop forwards and if it be too high he must raise his elbows and shoulders to reach up the desk. In either case the correct symmetrical position is lost and the eyes are not at the proper reading distance, *viz.*, 10—12 inches from the book.

The height of the desk from the seat must be equal to the interval from the seat to the elbows, the arms hanging by the side and the forearms being flexed at right angles. The width of the desk should be about 20 inches (15—24 inches) and a space of two feet may be allowed between the neighbouring desks. The desks should not serve as lockers and book-shelves, which collect dirt and are difficult to clean. If the desks be provided with book-shelves, care should be taken to see that the shelves do not come into collision with the knees. It is better to have the book-shelves under the

seats. Or the satchels may be hung up on books under the desks or by the side of the desks.

To sum up, desks and seats must be made adjustable for all heights and movements, so as to suit all pupils. This necessitates the construction of desks and seats with mechanical contrivances as is done in American Schools. Priestly Smith in England has recommended the use of 4 sizes of desks and seats, with no mechanical devices for raising or lowering, but capable of adjustment for + and — distances.

Proper slope of the desk is another important feature which should not be overlooked. For reading and writing purposes a slope of 15° is the best. If the desk top has not got a sufficient slope it will, when drawn back to make the requisite *minus* distance, be too high and the elbows will then be thrown out from the body. The shoulders will also be raised. Such a position is tiresome, uncomfortable and will soon lead to a collapse of the correct symmetrical posture. The eyes also will be brought too near (less than 12") the book—a position conducive to shortsight. The line of sight should fall on the printed page perpendicular to its plane in order that the tax on the eyes may be the least possible. For easy reading with the head in good position, the page of the book should be held at an angle of 60° from the horizontal line and somewhat below the level of the eyes (as the eyes are naturally directed downwards and as there is no fatigue in looking downwards).

But if the slope be 60° , books placed on the desk will slip down and ink would not easily flow down from the point of the pen.

Moreover, the great flexion of the arm at the elbow necessitated by slopes of 30° and upwards would tend to contract the muscles of the arm and render difficult the co-ordination and free employment of the muscles in writing exercises. The Vienna School Desk Commission recommended a slope of 15° .

The desks and seats should be periodically adjusted in the case of each pupil once or twice a year. The vision of the pupils may be impaired not only by inadequate lighting and badly constructed desks and seats but also by bad prints and bad postures in writing. Long hours of work and undue home lessons are also concerned in the impairment of the vision of the pupils.

The suitability of a book for school use is determined by

- (1) the paper—which should be white and unglazed;

- (2) the size of the type and of the intervening spaces and the length of the lines.

Professor Cohn of Breslau has laid down that the minimum height and breadth of the letters should be $1\frac{1}{2}$ m. m. and 0.25 m. m., respectively, and that the leading should be 2.5 m. m.

In books for use in the first year the type known as the Great Primer or 18 point should be used. In books for use in the second and third years the English Type should be used. In books intended for use in the fourth year Pica Type should be used.

It is not advisable to use a type smaller than Pica up to the fourth form. No books, even for adults, should be printed in anything smaller than Small Pica. The leading should be two times the breadth of the letters as the legibility is thereby considerably increased. The length of the lines should not exceed 4 inches.

The letters on the black-board should never be less than $1\frac{1}{4}$ inches in height, and may be preferably larger. They should be written in vertical round hand on account of the greater legibility.

Drawing of maps with fine details and the searching for names, in fine print in maps, if long continued, are injurious to the eyes.

The copy-book should not be longer than $5\frac{1}{2}$ or 6 inches, and the paper should have the least possible gloss. The base lines should be printed as they, being more legible than ruled lines, fatigue the eyes less.

The ink should leave a jet black mark as soon as it touches the paper. The sympathetic ink prepared by *moochies* and *masalchies*, which turn black in course of time should have no place in schools. Most of the authorities on School Hygiene are agreed that the vertical script handwriting should supplant the slanting script, for the following reasons:—

- (1) The vertical script favours the best postures and involves the smallest strain on the accommodation of the eyes. No unequal accommodation of the two eyes is imposed upon the pupil.

- (2) Horizontal and vertical lines are seen better than oblique lines. They are more legible and less taxing upon the eyes of the writer and the reader.

- (3) Vertical script is the natural way of writing as may be seen in the case of children who are just commencing to write.

- (4) In vertical script the bones of the fore-arm lie in their natural position and not twisted one over the other as in the slanting script.

In order to maintain good postures in writing, the following rules should be observed :—

(1) The page of the copy-book should lie directly in front of the pupil and parallel to the edge of the desk nearest the pupil. The copy should be in the straight central position.

(2) The pen-holder should be held so that the inside of the hand may be seen, the holder lying between the upper joint of the thumb and the index finger.

(3) The point of the pen should be at least $1\frac{1}{2}$ inches below the end of the second finger.

(4) The pupil must sit squarely facing his desk with his feet resting flat on the floor. Both the forearms should be equally placed on the desk and the elbows should be held about a hand's breadth from the body.

The object of education, as pointed out in the beginning of this paper, is to encourage and develop to the utmost, the faculties of body and mind, that happen to be the personal endowment of the individual. The immature organs of children will be rendered vigorous and active by sufficient healthy and graduated exercise of body and mind while they will be incapacitated and deteriorated by excessive work. Mental overpressure, if continued for a long time, will lead to a diminution of the mental powers, perception, memory, etc., physical fatigue and various diseased conditions.

The most common symptoms ascribed to mental overstrain are headache,* and sleeplessness often combined with a general fidgetiness and irritability and certain characteristic facial expressions.

Mental overstrain may occur when the child's health is below par and when one particular class of work is persisted in to excess and to the exclusion of varied work and of recreative exercises.

The greatest evil resulting from too prolonged study is the interference with the due development of the body by curtailing the time necessary for exercises, digestion and sleep.

Periodical weighings would enable us to detect such interference with the growth of the body.

The amount of work is of much importance to the growing body if the brain is to be developed and not stunted from early over-work.

*Headache may also be due to indigestion, constipation, impure air, defects of vision, etc.

The duration of effective attention to one subject has been found to be :—

15 minutes in the case of children of 5—7 years.

20 „ 7—10 „

25 „ 10—12 „

30 „ 12—18 „

Fatigue sets in after a brief period of mental labour and disappears if a change is made from a hard to an easy subject. Severe mental fatigue has been found by experiments to come on with regularity in the periods of Mathematics and Gymnastics while recuperation seems to take place during the periods for History, Geography and Nature Study. Modern Languages occupy with respect to fatiguing power a middle place.

The most fruitful work is done in the first 30–40 minutes of each hourly lesson. Therefore the lessons for children should not exceed three quarters of an hour. Shorter lessons are preferable for boys in the first three or four years. At the end of each lesson there should be an interval of 5–10 minutes to enable the youngsters to run and shout and inflate their lungs and to prevent inattention and restlessness in the next class. The teachers also can yawn unobserved and stretch out their limbs in this interval.

The daily programme in order to obviate fatigue should be so arranged as to prevent undue prolongation of any one kind of mental activity. The most taxing work should come when the children are freshest, *i.e.*, during the first hour of the day, and subjects requiring little mental work should come in the afternoon. The risk of fatigue can be diminished by a proper change of subjects. History and the Languages should alternate with Mathematics. Work, which is largely mechanical, such as writing, drawing, modelling, etc., object-lessons, and scientific demonstrations should come up last.

I would suggest the following order of the subjects taught :—

- | | |
|--------------------------|------------------------|
| (1) Mathematics. | (5) Translation, |
| (2) History & Geography. | Grammar and Dictation. |
| (3) Vernacular. | (6) Copy and Drawing. |
| (4) English. | (7) Object-Lessons. |

The number of hours of work per week is 30 at present in most schools. I think it advantageous to distribute it between six days. Such a distribution will no doubt give only one holiday (Sunday) a week. But I don't think there is any necessity for two holidays in the week from the pupils' point of view. And the teachers have no reason to complain against the arrange-

ment as they get a month's holiday in the middle of the year, and another long holiday at the end of the year.

The programme of work I would suggest is as follows:—

Forenoon 10-30 A.M. to 1 P.M.

2½ hours. { 1st class of 45' followed by an interval of 5'.
2nd class of 45' „ do. 10'.
3rd class of 45'

Afternoon 2 P.M. to 4-30 P.M.

2½ hours. { 1st class of 45' followed by an interval of 5'.
2nd class of 45' „ do. 10'.
3rd class of 45'

If the school closes at 4-30 P.M. there will be ample time for games and other exercises. As children find it difficult to concentrate their attention for more than 40' or 45', the maximum duration of the classes should be 45'.

I think it an advantage for both the teachers and the taught to commence work at 10-30 A.M. instead of at 10 A.M. (as at present), as it would give them time for preparation and prevent them from bolting their meals to the detriment of their health. Six days of five hours are certainly more advantageous from the health point of view than five days of six hours.

An important part of the school work often neglected is proper reading. Good reading is an exercise in voice economy. The pupils should be taught to inspire deeply and quietly while reading and to articulate distinctly and slowly. The teacher should, of course, pay attention to the correct pronunciation of the words.

A correct posture should be insisted upon while reading. The pupil should sit erect and hold the head upright. He should not lean over the book, and the book should be held at a distance of not less than 10 inches from the eyes, and so high that the line he is reading should not be more than two inches below the level of the eyes.

Manual work brings into activity the motor centres of the brain besides giving manual skill. It is very useful for training habits of accuracy and developing the power of construction.

Nature Study and Object-Lessons are highly important but greatly neglected. They should find a place in the school curriculum *at least* up to the fourth form in which Science is first taught.

A certain amount of home-work is necessary to establish habits of industry and self-reliance. But it should never be excessive. The pupil

must have a certain time at his disposal for studying anything extra and for going out for nature studies and exercise.

Inefficient teaching in some of the schools often compels parents to provide the children with private tutors, who have to do the work which really appertains to the masters of the school. And this private coaching leads to the curtailment of the time necessary for exercises and extra studies.

“Long holidays are hygienically unnecessary for the pupils though they may be needed for the teachers. The loafing of the long holidays has not the sanction of any natural law. Nature has no terms or holidays. She builds up by the perpetual increment of infinite small additions. She repairs waste as she goes along.”

It is much better to diminish the number of hours devoted to mental work every day.

The holidays may be distributed as follows:—

Two weeks at Christmas, one week at Easter, four weeks in the middle of the year, and one week at Michaelmas. Saturdays should not be holidays. And by working on Saturdays we shall be able to have six working days of five hours, to the great benefit of the pupils.

Many teachers are in the foolish habit of setting tasks for the long holidays. The work is never done satisfactorily by the pupils and is never scrutinised after the reopening of the school by the teachers. This task only spoils the handwriting of the pupils and creates a constant sense of uneasiness in the minds of the better class pupils (while the rest do not bother their heads about the task.)

Children should be allowed to follow their own bent during the vacation without the shadow of school tasks. But, at the same time, they should not be allowed to loaf about.

A small prize or substantial marks might be awarded for the following kinds of holiday work as suggested by Dr. Dukes:—

- 1 The best sketch from nature.
- 2 The best map of the home neighbourhood.
- 3 The best recitation, composition.
- 4 The most accurate observations on any subject that might suggest itself.
- 5 The best piece of clay modelling, carpentering, etc.
- 6 The best natural history collection,
etc., etc., etc.

The task should be something requiring skill in manual work or requiring accuracy of observation and description, etc. The nature of the task selected may be left to the discretion of the pupil. A prize for excellence in such exercises as running, jumping, swimming, etc., after the re-opening of the College may also incite pupils to practise the exercises during the holidays.

School discipline is a subject of vast importance to the school. It is not necessarily synonymous with severity. It only means that wrong-doing and right-doing will uniformly receive their appropriate reward.

Punishments are unquestionably required in the management of school for misbehaviour of various kinds. But it is essential that they should be adjusted to the fault and be judiciously administered. Unjust punishments wound the sense of equity in boys, create feelings of resentment in them, weaken the influence of the masters for the good of the boys and lower the masters in the estimation of the pupils. Boys should not certainly be punished for natural dullness. Such boys require extra help from the teachers.

A clear distinction should be made between *school offences* such as inattention, talking in school, unpunctuality and idleness; and *moral offences* such as lying, stealing, cheating, dishonesty of any kind, the use of objectionable language, copying, insubordination and bullying other boys. Corporal punishment should be used only for moral offences and never for the school offences.

The best form of corporal punishment is caning the buttocks or the hands. Some medical authorities are of opinion that the buttocks are the places intended by nature for corporal punishment. Boxing the ears, thumping the back and shaking the child by the shoulders have been known to be followed by untoward results.

Corporal punishment must be suitably administered by a teacher who is neither hungry nor angry, after careful investigation of the offence and after hearing what the culprit has to say in defence. Our departmental regulation that it should be administered only by the Headmaster is a wise one.

The various forms of punishment for controlling the boys are:—

1. Sending the boys out of the class and making them lose their lesson.
2. Making the boys stand or stand upon the benches.
3. Fines.

4. Imposition.
5. Compelling the boys to stay after school time to learn the lessons.
6. Loss of marks and rank.
7. Chaffing.
8. Corporal punishment.
9. Dismissal from the school.

Of these the last two forms of punishment should be reserved for moral offences.

Sending the boys out of the class is stupid as it would promote idleness and has no reformatory value. Making the boys stand or stand upon the benches, is a useful form of punishment for school offences especially for sensitive boys. But it should not be prolonged beyond ten minutes.

Fining the boys is really fining the parents and consequently fining is not a legitimate form of punishment.

Imposition or setting lines is a senseless form of punishment. It certainly spoils the handwriting and is physically harmful to the body as it deprives the culprit of fresh air, exercise and mental rest. But a modified form of imposition is an excellent form of punishment. The culprit may be made to write copies in copy books and the quantity might be reduced in proportion to the quality, by way of improving the handwriting. He might be made to write ten copies if bad, five if moderately good, while one copy might suffice if it be neat and resemble the copper plate.

For school offences the available forms of punishment are this modified form of imposition, chaffing, standing on the bench, loss of marks, and rank and compelling the boys to stay after school time in the evening, to learn the lessons. (But the teacher should also stay to see the pupil do the work.)

Before leaving the subject of discipline I wish to point out the necessity for punctuality in commencing and closing the lessons on the part of the teachers. The managers of schools would do well to purchase a good and correct clock that will indicate correct railway or gun time without waiting for the arrival of the Headmaster.

Physical exercise is quite as important as mental development and is necessary for the health and growth of the boys. No school should be recognised which does not possess adequate space for games and other exercises, around the school building or in its immediate vicinity. The space should be large enough to permit all boys to play and care should be

taken by the teachers to see that they all do play. One of the qualifications for the teachers should be their readiness to superintend and mix with their boys during the play. No exercise should be taken for at least two hours after a full meal. Games are indispensable on account of the mental enjoyment and excitement they afford. They are varied exercises in walking and running with the additional use of the arms in throwing and hitting the ball. Every muscle in the body is exercised in a pleasurable manner without fatigue.

"Games tend to develop a well balanced mind and character; they instil into the boy's nature glowing spirits from the robustness of his health, quick response to calls of duty, good temper often under trying circumstances, love of justice and fair play, self-reliance, endurance, confidence in comrades, desire to excel which ultimately becomes a noble ambition, quick judgment, aptness to act with others for the good of all and not from selfishness, courage under difficulties, self-control, and last, but not least, the check in morbid desires and sensations by the expenditure of superfluous energy which ensures purity of life."

For delicate students who cannot take part in violent games, walking, drill, easy gymnastic exercises, dumb bells, gardening and field excursions in botany are useful.

The games and exercises suitable for our schoolboys are football, cricket, hockey, gymnastics, drill, bending in native fashion, vaulting, wrestling, running and jumping, excursions and gardening.

Though games are useful the present day matches are highly prejudicial to the mental and physical welfare of our schoolboys. For every eleven boys who are playing in a match, there are hundreds of boys watching the game. To watch a good game occasionally is beneficial but this watching business is becoming too common in Madras and is bound to interfere with the due exercise, mental and physical, of the boys who waste a large amount of time. Except in the case of some schools, most of the watchers can't play any game themselves. Many little boys think that cricket can be played well, without taking any other exercise, forgetting that the cricketer needs running and walking to train his wind and legs and continual bowling and throwing in order to bring his arms and chest into a perfect condition.

A medical officer of the school should inspect the boys from time to time and advise each boy which exercises might be indulged in and which not.

Walking is a simple easy exercise suitable for all boys. In walking the spine should be kept straight, the head erect, and the shoulders well back. A purposeless walk is depressing. Excursions for the purpose of giving object-lessons or for the purpose of nature studies are excellent for combining instruction and exercise and giving an interest to walking.

Running is the foundation of all active games. No other exercise has so good an effect on the respiration and circulation. By no other exercise can the impure air of the school-room and insanitary houses be completely pumped out of the lungs and replaced by pure air. For little boys a hoop infuses interest in the exercise. Older boys should be systematically trained to run both short and long distances and to jump.

Swimming is a valuable art which every pupil should be taught when facilities exist to teach the art. Schoolboys should practise exercises of rapidity and agility rather than those of strength and endurance (which should be reserved for the College days).

Each school should possess a trained gymnastic instructor who ought to look after the exercises of children and who ought to make the periodical measurements and weighings of the children for entry into the physical register.

The class teachers should consider themselves responsible for the welfare of the boys and take a personal interest in their boys.

As it is necessary to restrain some boys from games and push others, the capacity of every new boy to join the various games and exercises should be ascertained at the time of admission by a medical examination. The help of a medical man is of very great value to the Headmaster if he is to carry on his work with success. The managers ought to make the necessary arrangements to secure the help of a competent medical man in the neighbourhood.

Medical help is necessary :—

1. in scrutinising plans of new buildings;
2. in the medical examination of pupils on admission;
3. in watching for defects of growth, effects of mental or physical over-strain and the first signs of any disease;
4. in looking after the general sanitation, etc.;
5. in diagnosing and preventing the spread of infectious and contagious diseases.

In the case of every new admission, the medical man, after a searching medical examination, should certify as to the amount of physical exercise and education for which the pupil is adapted. The results of the examination should be entered in the accompanying form which should be filed with others for future reference. Children with weak hearing or defective eyesight may appear stupid to the masters but a medical examination will not only reveal the existence of physical defects but also the remedies for the defects. (For example, in adenoids, myopia or hypermetropia all of which are remediable). As a knowledge of the past life and family history would be very useful in helping the medical officer of the school, in watching over the growth of the children at school, it is desirable that the parents should fill up the accompanying form and send it to the medical officer.

*Medical Examination of a new Pupil on entering School,
and his Medical History.*

Date of examination.
 Name.
 Age.
 Height.
 Weight.
 Chest measurements at nipple level | In deep inspiration.
 „ „ | „ expiration.
 General appearance.
 Vaccination marks.
 Muscular system.
 Nervous system.
 Hearing.
 Eyesight.
 Heart.
 Blood vessels.
 Pulse.
 Respiration.
 Throat.
 Percussion of chest { Right.
 „ „ { Left.
 Auscultation of chest { Right.
 „ „ { Left.
 Tongue.
 Stomach.
 Liver.

Spleen.
Intestines.
Hernia.
Genitalia.

Urine	{	Sp. Gr.			
		Incontinence.	Albumen.		Sugar.

State of health while at school. { To be filled in on
Illnesses and accidents while at school. { leaving school.

Games which he may play.

should play.

" " not play.

Signature of Medical Officer.

Report by Parent or Guardian to be sent to the Medical Officer of the School for Guidance.

Name.

Date of birth.

Where born.

Where resided.

Has he any ailment or defect rendering "school games" or any of them undesirable?

(The answer should state every known personal defect, *e.g.*, hernia, heart disease, etc.)

Is there any peculiarity in health or constitution which should be mentioned?—*e.g.*, rheumatism, gout, consumption, mental weakness, etc.

When was he last vaccinated ? Was it successful ?

Has he had small-pox ? When ?

„ Chicken-pox ? „

„ Measles ? „

„ Rose rash or German measles ? „

" Mumps ? "

Whooping-cough?

„ Influenza ? „

„ Malarial fever ? „

What other illness has he had ? When ?

Signature of parent or guardian.

Date.

Signature of parent or guardian.

Date.

The height, weight and the chest-girth of each pupil should be periodically recorded yearly or every half-year in order to observe whether the natural standard of height or weight is maintained.

Rapid growth requires great care, more rest and little work while loss of weight requires a diminution of work or even cessation of work.

A steady increase of chest-girth always indicates the soundness of the lungs, while any cessation to expand indicates the necessity for a very careful examination of the lungs. The periodical measurements might be taken by class masters or the gymnastic instructor and entered in the physical registers. These physical registers are of great value in providing an accurate life-history for each pupil during school, in indicating whether the pupil is being injured by the mode of life, by over-work, underfeeding, etc., and in the early detection of diseases like consumption.

*Averages of height, weight, and chest-girth of school-boys in England.**

Age in years.	Height in inches.	Gain in height.	Weight in pounds.	Gain in weight.	Chest-girth in inches.	Gain in chest-girth.
5	41.3	...	40.49	...	21.2	...
6	43.88	2.58	44.79	4.3	21.6	0.4
7	45.86	1.98	49.39	4.6	22.2	0.6
8	47.41	1.55	54.41	5.02	22.6	0.4
9	49.69	2.28	59.82	5.41	23.2	0.6
10	51.76	2.07	66.4	6.58	23.7	0.5
11	53.47	1.71	71.09	4.69	24.3	0.6
12	55.05	1.58	76.81	5.72	24.8	0.5
13	57.06	2.01	83.72	6.91	26.3	1.5
14	59.6	2.54	93.46	9.74	21.2	1.9
15	62.27	2.67	104.9	11.44	29.7	1.5
16	64.66	2.39	120	15.1	31.2	1.5
17	66.2	1.54	129.19	9.19	32.8	1.6
18	66.8	0.61	134.97	5.78	34.0	1.2

The figures are for English Boys and differ only slightly from the figures for American Boys. Correct figures for Indian Boys will be available only when the measurements and weighings are periodically registered in all the schools and sent for some central office for tabulation.

* Unfortunately there are no figures at present available for boys of this country. The figures in the accompanying table are for English Boys.

Re-vaccination is a necessity in the young between the ages of 12 and 16 years. Every boy over 12 years should produce a certificate of re-vaccination on admission.

Infective diseases as well as contagious diseases such as ringworm, itch, sore-eyes, head-louse, etc., are communicable. The Medical Officer should always be on the look-out for the presence of infectious and contagious diseases, so that necessary steps may be taken to prevent their spread.

Very frequently teachers will be the first persons to notice the symptoms of illness amongst the children. A change in the normal disposition of the child, abnormal irritability, drowsiness or inattention are commonly associated with impending illness. A frequent complaint of headache should always be carefully inquired into. The infectious diseases find a suitable soil in children and spread largely and rapidly in schools before a large number of susceptible persons are crowded together often under insanitary conditions.

In order to prevent epidemics of infectious diseases we must render the school an unfit soil for the activities of disease-germs by improving the condition of the pupil and his surroundings.

Dryness of soil, efficient surface, and sub-soil, drainage, good ventilation, pure water-supply, efficient drainage and conservancy, work regulated according to age, daily and moderate exercise, sufficient rest and sleep,* plain wholesome well cooked food in sufficient quantity with ample time to masticate it, daily natural relief and daily bathing, and regularity of habits are all important factors in improving the condition of the pupil and his surroundings.

Boys should learn to manage their stomachs, to observe what agrees and disagrees with their stomachs, not to eat what disagrees and never to eat or to drink in excess. It is unhealthy to eat between meals, the sweets or pastry, which they desire, should be taken immediately after or with food and never between meals as they upset the stomach. The digestion will be impaired if any exercise be taken within two hours after a meal. Thorough mastication is necessary to secure good digestion of food. When one feels not quite well and disinclined to take food it is wise to abstain from food. The great importance of purity in thought, word and deed, should be urged on the pupils by the teachers, both by practice and precept. When cases of any infectious or contagious diseases are detected in the

* Boys under seven years require 11 hours sleep, and over seven and under 12 years 10 hours sleep, and boys over 12 nine hours sleep.

school the individuals affected should be immediately excluded from the school, in order to prevent the spread of the disease. And the boys excluded should not be re-admitted till the period of infectivity is over. It would be a wise rule to exclude boys from the infected houses though they may not be suffering from the diseases, as they may be in the incubation period of the disease. The sub-joined table will be useful in deciding when and how long boys suffering from infectious diseases ought to be excluded from the school.

*Periods of Incubation and Infectivity of the
Infectious Diseases.*

Infectious disease.	Incubation period.		Period of infectivity. (When the pupil might return to the school.)
	Extremes.	Average.	
	Days.	Days.	
Small-pox.	9-15	12	Six weeks. When every scab has fallen from head and body.
Chicken-pox.	3-19	14	Three weeks. When every scab has fallen.
Measles.	7-18	14	2-3 weeks. When peeling of the skin and cough have ceased.
German measles.	9-21	18	10-14 days after the commencement of the attack.
Mumps.	14-25	19	14 days from commencement. But if the testicles be swollen on the 8th day, 22 days.
Whooping-cough.	7-14	14	When the cough has quite ceased or six weeks from the commencement of the whoop.
Influenza.	1-5	3	10 days.
Typhoid fever.	1-21	12	When the strength is sufficiently recovered. Average, one to two months.
Cholera.	A few hours to 5 days.	„	Two weeks after recovery.
Plague.	1-10	5	One month after recovery.
Head-louse. } Itch. } Ringworm. }	...	...	{ When the diseases have been completely cured, the boys may be admitted.

Accidents may occur in connection with school games and gymnastics; boys may occasionally have fits, faints, hæmorrhage or wounds, etc. As medical assistance may not always be at hand, the teacher should know what to do till the doctor comes. A knowledge of "First Aid" is very useful to teachers. I would advise all teachers to read with the help of a medical man, a small book by Cantlie on the subject "First Aid."

The following notes on the treatment of some of the school emergencies may be found useful to the teachers.

Abrasions may be washed with cold water and then painted with Friar's balsam.

Bruises and contusions should be treated with the prompt application of cold; a wet rag, ice or spirits and water may be applied.

Burns.—Immediate application of a cloth soaked in a saturated solution of bicarbonate of soda would relieve the pain and burning. A cloth dipped in a saturated solution of picric acid is also very useful. In the absence of either a well-shaken mixture of equal parts of cocoanut oil and lime-water may be used to dress the burns.

Bites of Dogs.—The part should be bathed in hot water, lanced and touched with strong nitric acid with a broom stick.

Coughing and Vomiting of Blood.—Sucking ice is useful.

Fainting.—The boy should be removed to the air and laid on the ground with the head low. The clothing should be loosened. Cold water should be dashed in the face and a bottle of ammonia or smelling salts should be held to the nostrils. People should not crowd round the boy and nothing should be poured down his throat.

Fits, Epileptic.—The boy should be gently laid on the floor. Tight clothing should be loosened or removed and a cork or a piece of wood should be inserted between the teeth to prevent injury to the tongue. No active treatment is necessary.

Fits, Hysteric.—Generally in girls, recognised by sobbing, a highly emotional condition and sensitiveness of the eye balls to the touch of the finger, weeping, laughing or crying and a gentle fall. The pupils who are attacked with these fits should be immediately removed from the school. No treatment is necessary.

Wounds.—Should be thoroughly washed with water and their edges should be brought together. The application of a wet pad and a bandage, will keep the edges together. A plaster should not be applied as a rule.

Bleeding.—Is best treated by application of cold, pressure by a pad, bandage and elevation of the part.

Bleeding from the Nose.—Stooping is bad. The pupil should sit down with the head thrown back. A cold rag or a cold door key may be applied to the nape of the neck. The nostrils may also be syringed with ice cold water or alum solution. Thirty grains of potassium bromide in a tumbler of water will stop the bleeding. A second dose may be given in half an hour if the bleeding continues.

Stings of Insects, Scorpion, etc..—Rubbing malt vinegar is very efficacious.

Snake Bite.—Rubbing malt vinegar has been said to be efficacious. But it is better to carry out Brunton's method. The appliances can be had from any Madras Chemist.

Sprain.—The application of ice, or wet rags dipped in a mixture of spirit, brandy or arrack and water with a little sugar of lead, is the best treatment. Rest is very essential.

Foreign Bodies in the Eyes.—The lid is to be everted and the dust is to be removed with the corner of a handkerchief. A drop of castor-oil is then to be dropped into the eye. Dust in one eye can also be sometimes removed by rubbing the lids of the other eye.

Foreign Bodies in the Nose.—May be expelled by blowing after closing the sound nostril.

Foreign Bodies in the Ear.—It is better not to make any attempt to remove it, unless the body is very near the external opening and easily removable.

Fractures of Bones.—Recognised by the inability to use the affected limb, shortening, etc.

Dislocation.—Recognised by the proximity of the injury to a joint, etc. It is not always easy to diagnose. The Doctor should always be immediately sent for.

Suffocation:—Is caused sometimes by swallowing fruit stones, marbles, etc. The finger should be passed into the throat and the body drawn forwards. Even if the attempt to hook it fails, vomiting will result and expel the body. If the body is not easily expelled the doctor should be sent for immediately.

Drowning:—As every moment is precious and as it is not always practicable to have a medical man on the spot, the teachers and boys should know how to resuscitate the drowned. No doubt some one might be sent for the Doctor. But the bystanders should begin the resuscitation. The following directions should be carried out:—

Place the drowned boy on the back. Cleanse the mouth from mud with a handkerchief. Pull the tongue forwards with fingers in which a handkerchief is held to prevent the slipping of the tongue.

Place a folded coat under the head and shoulders to give firm support.

Grasp the boy's arms near the elbows. Face his feet. Draw the hands over the boy's head and then press down firmly against the sides of the chest. Repeat this process fifteen times a minute for half an hour. The legs might be rubbed by some one in the meanwhile. This treatment or any one of the other methods can be carried on by the Doctor when he arrives.

I may wind up by saying that everything should be done by the teachers and managers of schools to make the school-life (the most innocent and guileless period of life), perfectly healthy and happy. The pupils should be able to carry away pleasant and grateful recollections of the period spent at school.

The managers and teachers should always try to improve their institutions. "Nothing so effectually bars progress as a contented optimism. Nothing so effectually tends to improve an institution as a lively discontent springing from a knowledge that a better state of affairs is possible."

A "better state of affairs" is impossible without a true conception of the existing state of affairs. The existing state of affairs can only be revealed by the periodical (and sometimes surprise visits)—visits of a Board of Visitors composed of 3—5 men unconnected with the school and containing at least one medical man. The Board can see the existing defects better than the managers to whom all beams appear like motes. With the help of the Visiting Board to point out the defects and the means of removal of such defects in the school, the managers of schools ought to be able considerably to improve the condition of their schools and obtain the best value for the money they spend.

The Late Dr. J. MARSH, LL. D.

WE deeply regret to announce the death of Dr. J. Marsh, LL.D., which occurred at sea on the 7th instant. Dr. Marsh was in bad health when he embarked at Madras in the *Golconda* on the 24th September, but he made satisfactory progress until the ship left Aden on the 5th instant. That night the heat was intense, and early next morning Dr. Marsh was found to be in a half unconscious condition. Notwithstanding the most careful attention he died on the following day. He was buried at sea. He came to this country nearly fifty years ago, and was long engaged in education work.

The news of the death of Dr. J. Marsh cannot but be received with profound sorrow by the many students and friends of that distinguished educationist in Southern India. Many of those who had the pleasure of meeting him when he visited Madras during the Royal Visit last year would have noticed that his health had broken down, and that he was slowly falling a prey to the dire disease of diabetes, from which he had been suffering for the last twelve years. Of the many great educationists whom Southern India has had the good fortune to be associated with, Dr. Marsh was one of the greatest, and in the St. Peter's College at Tanjore over whose destinies he presided from 1864 to 1877, he wielded an influence in no way inferior to that commanded by the late Mr. W. A. Porter at Kumbakonam or Dr. Miller in Madras. Of a masterful mind and of a very amiable disposition, he won the admiration not only of his pupils but of the many friends, he was not slow to make wherever he went, and it is no exaggeration to say that there is many a home in Southern India where his death will be lamented to-day as a personal loss. In Jeypore, with which State he was associated during the last fifteen years of his life, the Rajah as well as the people worshipped the very ground he trod upon, and to them his death is certainly an irreparable loss.

Tanjore, where Dr. Marsh originally laboured as an educationist for nearly fifteen years, has long ago honoured his name by establishing the "Marsh Hall" as a monument of his good name and fame.

A LECTURE ON SLOYD.

MR. GUSTAF LARSSON, the Organiser of Manual Instruction (Sloyd) in Mysore, delivered an interesting Address on "Sloyd as a part of General Education" in connection with the Mysore Educational Exhibition, recently. The following are extracts from the Address:—

"It is a great pleasure to me to have the opportunity of visiting this country and to learn what you are doing in the line of practical education, and to suggest to you some possible improvement and further studies in manual training. I had the pleasure to meet Mr. H. J. Bhaba, the Inspector-General of Education in Mysore, while on his visit to America, nearly a year ago; as the result of which I gladly accepted his invitation, through your Government, to come here a short time and work with some of your teachers for the purpose of inaugurating educational manual training in your public schools. I congratulate any community which is planning to introduce manual training into the schools, because I believe that every child is by birth-right entitled to an opportunity for manual training as a part of his education. The Province of Mysore, as far as I know, is the first to take up the subject of manual training in India, as an organic part of their public schools system and the people of this State are to be congratulated on having among their own people such thoughtful and progressive leaders of education.

Sloyd, wood-work with a large variety of hand tools, has been found most satisfactory from an educational point of view. My reasons for thinking that sloyd is better calculated than any other scheme of work for the sound development of children are these :—

(1) Sloyd offers a progressive course of work from the easy to the difficult, so that children are not easily discouraged and excellent results are possible.

(2) The task presented to a boy is always the making of an attractive object. It is something which has a real use, and which the boy likes to make and knows to be worth making.

(3) Tools and exercises in sloyd are selected with reference to the best muscular development of the boy. A monotonous and repetitions use of tools which easily develop automatic and impervious muscular action, is carefully avoided.

(4) Free-hand farm-work, which gives valuable training for hand and eye, is an important feature of the work.

(5) Mechanical methods and labour-saving contrivances common to some other systems of manual training, which lessen both mental and physical development, are avoided in sloyd.

The first consideration^{ects ?} in introducing sloyd in any country is the selection and preparation of teachers^{chools} and c^{rs.}

The teacher of sloyd or educational manual training needs to be a born teacher and to understand child life and child nature. He should have some professional training in the science and art of teaching. Technical skill is a necessity, but should never be the chief requisite in the selection of a teacher. A continuous course of work for at least four or five months, devoted exclusively to the theory and practice of educational manual training is necessary to get a proper insight into the principles and practice of sloyd.

In regard to teachers of manual training, I have the pleasure to quote the words of my friend Dr. Henderson :—"It is difficult to find men and women of broad culture who can also use their hands. It is very easy to find artisans who are willing to exchange the smaller pay and longer hours of the shop for the pleasanter work of the school-room. They believe very sincerely that the only qualification is the ability to turn out good work. I admire their dexterity, I respect their earnestness, but I say to them and I say to you that this is not enough" . . . "His" (the artisan's) "skill is in handling dead material. What we want is something different from this; it is a man whose thought is in the process, whose cunning is in the handling of the living material, the tissue of childhood."

After the selection of the teacher come the conditions under which the work is to be done.

It is a great mistake to put this work, as is often the case in Europe and America, into poorly lighted and badly ventilated rooms. It must be understood by those in authority that children working with tools necessarily use their eyes and lungs more intensely than in any other school work; and for this reason, it is evident that the best lighted and best ventilated rooms should be provided for the sloyd class. Very few teachers can maintain a good moral atmosphere, if the physical conditions are depressing. Furthermore, experience has taught us that, if the best educational results are to be obtained, not more than twenty children (preferably less) should be given to one teacher.

Of course, class instruction, or as I would call it, mass instruction can be given to as many children as there is room for. Such teaching, however, would be found poor educationally; and consequently poor economically. The equipment of the sloyd-room should be such as would give an impression, not of a shop, but of a school or educational laboratory.

The tendency in America, and also in some schools of Europe, seems to be, to try almost every possible kind of handicraft without regard to its real general benefit to the children. Consider, for instance, such work as bead-

work, lace-work, fancy needle-work, basket-making, fret-sawing, bent iron-work, pyrography, leather-work, etc. Most of these handicrafts, even when practised with good methods, give very little opportunity for natural development of the growing child; and some methods I have seen, are positively injurious to children. An exhibition of children's work never gives a true idea of its merits. To ascertain the value of any school-work and particularly the merit of handicrafts, one should visit schools and see children at work under different conditions and ask oneself the following questions :—

First.—Are the child's positions and movements while working such as are likely to be injurious or beneficial to his physical development?

Second.—Is he doing his own thinking unprompted and uninterrupted by the teacher?

Third.—Is his work so carried on that self-respect is developed rather than vanity?

Fourth.—Is he learning to recognise and to love excellence of workmanship, as shown by becoming more and more critical of himself and of his own achievements?

Fifth.—Is he learning to recognise good form and to avoid unsuitable decoration?

Sixth.—Is he getting some training in good citizenship by working for others?

Seventh.—Does the finished product represent the child's own effort, and is the workmanship good, or was the problem too difficult?

You may be interested to have a brief account of what is being done in this state and what we expect to accomplish. As I have said before, the most important thing in any new movement is to secure proper leaders. In harmony with this idea, a number of twenty teachers selected from different parts of the Province have been invited by your educational authorities to undergo a systematic training in sloyd, under my supervision at Bangalore. The course has been planned for a period of sixteen weeks with six hours' daily work. This time may seem short in preparing teachers of manual training, compared with our school programme in America; but as a matter of fact, it is a three or four times longer course than usually given to similar work in England, Germany and Sweden. The course consists of short lectures on the educational principles of sloyd, talks on methods of work and of teaching; reading standard educational books; writing notes, making

sketches and working drawings; practical bench work in wood; discussion of the relative merits of different handicrafts; talks on organisation and proper equipment of manual training rooms; and, if time permits, work in wood-turning and wood-carving. After the students have gained sufficient insight into the principles and practice of sloyd, opportunity will be given for practice-teaching. For this purpose, classes of twenty children each, selected from the second, third, and fourth forms of the public schools, will be at work one or two afternoons a week.

In introducing this comparatively new study into the schools of this country, one likes, of course, to be assured of a measurable success. I would suggest to the educational authorities the following :—

(1) That teachers who have had experience in regular school-work, and have proved themselves capable of understanding the principles and practice of sloyd, should be selected to teach the subject.

Such teachers should have a special remuneration of about Rs. 100 a year, in addition to their regular salary.

(2) That suitable sloyd-rooms, properly equipped, should be selected, in or near the regular school buildings. Such rooms to accommodate not more than twenty children at a time.

(3) That to begin with, children be selected from the second, third and fourth forms, and that the time given to each child should not be less than two consecutive hours a week.

(4) That when work is satisfactorily carried on in the forms just mentioned, it should be expanded into the lower and higher grades of schools.

(5) That, in the lower grades, some correlated hand-work in clay, cardboard and thin wood be introduced and taught by the regular teachers, if competent.

(6) That, in high schools, preference be given to advanced wood-work, supplemented by wood-turning and some carving.

(7) That the objects made should be such as to be readily appreciated by the worker and should become his property.

(8) That work-benches, tools and materials used, should be, as far as possible, the product of the country, rather than imported.

(9) That a sloyd-room be fitted up in connection with the Normal Training Schools to enable the students to attend the manual training as a part of their regular studies.

(10) That graduates of Normal Schools who have had manual training be selected as pupil-teachers or assistants at the various sloyd centres for at least one year.

(11) That during vacation time courses in sloyd and other handicrafts be given under the auspices of the Normal Schools or Colleges for the improvement of teachers.

(12) That, in harmony with sloyd, educational gymnastics should be taught as a valuable instrument for a complete general education.

(13) That such work as forging, pattern-making and machine-work be placed in the Technical or Industrial Schools.

These Technical and Industrial Schools are needed to supply a training to the comparatively few boys who intend to specialise in a particular line of work, or to make a livelihood in some particular trade; but such work has no place in general education.

In summing up, let me briefly consider the educational results which we claim for sloyd when carried out under the conditions stated, namely, a well-qualified teacher, a limited number of pupils, a room well lighted and well ventilated with proper equipment. We claim to give an equal and simultaneous development of the threefold nature of the child; namely, physical, mental and moral. Physically, sloyd tries to avoid all positions and movements not conducive to health. With its great variety of movements produced by the use of a variety of hand tools which call into play a large number of muscles; not only are the muscles of the hand and arm and shoulder used, but those of the leg, trunk, and chest, are also brought into action.

Hand-work may be ever so fascinating, but if a correct, vigorous use of a variety of muscles is not provided for, it falls short of accomplishing most important physical as well as mental results.

During the formative age the vigorous use of the muscles acts most favourably on the growth of the brain, promoting mental activity. Of the many kinds of handicraft tested in Sweden for their educational value, none, from a scientific point of view, have met so many educational needs as are found in sloyd or educational hand-work.

Mentally, we claim that sloyd produces more thoughtful, more self-reliant, more accurate and more alert minds. Both its methods of teaching and the motive which inspires the making of something worth making tend to do this. It is important that the worker should have a good reason for

every exercise and every tool he uses, and that his mind should be so full of wholesome, good thoughts, that evil thoughts have no room to intrude. The motive for doing, controls the action; hence the object made should be such as will not only encourage good, unselfish thoughts, but also such as will incite the boy to put the maximum of thought into whatever he is doing.

An important point in moral training is that the will-power is strengthened.

"The training of the will depends upon the idea of the end of the action, and upon the vivid feeling of the worth of that end," says Hoffding. What better means could we have in training this most important faculty than that offered in sloyd, where every object is calculated to arouse and sustain interest, because there is an attractive and worthy end in view, which the boy wishes to reach, and can reach only by his own personal effort.

I trust I have afforded you some arguments that will help to establish our claim for the value of Sloyd in the education of children, and I hope that the seed sown will have a favourable growth and be a blessing to the coming generation of India.

PSYCHOLOGY OF PLAY.

A very interesting and scholarly lecture was delivered the other day in connection with the Association of the above College on "The Psychology of Play and its Significance in Education," by Mr. S. Lakshmana Iyer, B.A., L.T. with Mr. W. F. Grahame in the chair.

In the course of his lecture, Mr. Lakshmana Iyer described the growth of the play impulse, tracing it from the earliest stage of infancy to the stage, during which we notice the transition from purely individual and competitive play to co-operative and highly organised games. Co-operation under a leader is the ideal these games represent, besides involving not merely the subordination of self to the interests of the group, but obedience to a leader even when he is mistaken, and, finally, learning self-control and hero-worship. Play is essentially instinctive and is the earliest means of the education of children, since play involves imitation, emulation, acquisition and construction in various ways. The lecturer pointed out that play phenomena have received a new interpretation in the light of recent studies in physiological and genetic psychology and the application of the doctrines of evolution and sociology to psychological problems. Neurologists point out

that there are more or less clearly defined stages of growth in the physical, mental and moral development of the child. The child's play activities re-echo the historic activities of the race in its march towards civilisation. Constructiveness, acquisition, pugnacity, sociability, imitation and emulation are characteristics of the historic activities of the race. The fact that the child is rehearsing ancestral experience is the reason for the joyous element in play. This is why certain games are more interesting than others, for instance, games of chase and searching, games of throwing, fighting and contest—as wrestling and boxing—these are based on the racial instincts of hunting and fighting, collections, etc., on acquisition, making toys, dolls, etc., on constructiveness, jumping, racing, etc., on emulation. These instincts were necessary for the survival of the race in a keen struggle. They are now essential for the development of the organism. The best games should, therefore, be composed of these elements.

The lecturer next dwelt on the sociological aspect of play, which is the most important means by which children realise their social impulses. The social situation in which the individual finds himself stimulates his powers. He is enabled thereby to emerge from his narrowness and to think of himself from the standpoint of the welfare of the community to which he belongs. True education can only come through this means, that the only way of interpreting the child's instincts manifested in play is by translating them into their social equivalents. There is a premium on united action. The spirit of union, the habit of suspending private benefits for the larger good of the group, the willingness to recognise and respond to the leadership of the more competent—all this grows grandly on the playground. Sociology shows that, by reorganising and reforming children's play, much may be done to mould the future of a nation. Play develops self-control and energy of character, courage, self-confidence, responsibility and reverent submission to law, besides preventing attacks of lawlessness in children by giving a natural outlet for their energy. Therefore a proper conception of the significance of play broadens educational ideals and is suggestive of important lessons. There are two ways, he said, of viewing the educational application of play, namely, (1) to make instruction take the form of play, and (2) to convert play into systematic teaching.

Finally, the lecturer urged his audience that as teachers they can do much in the way of directing the play impulse to pedagogic ends, without destroying the children's spontaneity. He concluded his address with the words of Froebel "play is not trivial; it is serious and of deep significance.

To the calm, keen vision of one who truly knows human nature, the spontaneous play of the child discloses the future inner life of the man".

The Chairman then congratulated Mr. Lakshmana Aiyer on his admirable and impressive address and in the course of his speech he dwelt on the three-fold aspect of play and made a few interesting remarks on the history of play in the life of a child. He cited John Stuart Mill as one of the few great men from whose life play was entirely absent and showed that education which set aside play from its curriculum was negative. Discipline and the manly virtues would be entirely lacking in such a course of instruction. The very fact of change of occupation took on the nature of play. Hence the variety of study introduced into the time-table of a class. The Chairman emphasised the fact that music, any kind of play, was a higher kind of play when introduced as a variation from the routine of school work.

THE PLACE OF SOCIETIES IN COLLEGE LIFE.

The Annual Valedictory Meeting of the Associated Societies of the Madras Christian College was held a few days ago at the Anderson Memorial Hall. Mr. Arthur Mayhew, Deputy Director of Public Instruction, presided. There was a large attendance of the members of the several Societies of the College, besides some of the Professors. Mr. E. Genner, of Oxford, delivered the Valedictory Address, the subject chosen being "The Place of Societies in College Life."

The Chairman, in introducing the lecturer, congratulated the Associated Societies on their good fortune in having got for their lecturer for the evening Mr. Genner, one of the most brilliant scholars of one of the most brilliant Colleges in Oxford.

Mr. Genner, in the course of his suggestive discourse said, that it was mostly when they had passed out of the sphere of College life that they looked back upon College Societies and other things connected with their Colleges, that they remembered what they had been to them and felt their influence rather than at the actual moment when they were in the midst of them. University life implied a common, social and intellectual life among the members of that University. College Societies, more particularly literary and athletic ones, were the outcome of that common life, and the common life of a University was not merely intellectual life, but it should be life which went through the sum total of interests which made up human

life. A very large part of the work of a College depended upon the contact of mind with mind. It was upon the interaction of the students' own minds that the intellectual mind of a University very largely, if not mainly, depended. It was for them as members of various Societies to set and realise the high standard, not so much of book-learning, but of real education and the training of the mind. Joint study implied, to a great extent, co-operation between those who studied and division of labour between them. They learnt as much from each other as from the cleverest and most conscientious teacher they ever had. The College atmosphere mainly depended upon the ordinary undergraduate and his intense desire to learn to find out facts, to get at principles, and the determination to advance the intellectual life of the College and the interest of the country through it. College atmosphere strongly reacted on characters. The highest success in life was success which could not be divorced from our fellow-men, for our life in the future was not going to be a life merely of isolation. One of the great advantages which membership of a College Society conferred upon the members was just that—a sense of loyalty to the institution of which they formed part. There they learnt obedience not merely to their superiors, but to their equals who had been chosen by themselves to be put over themselves. The successful running of a Society required a certain power of organisation and of leading men. These Societies gave a training in the management of problems and of men which stood them in uncommonly good stead in their life in the world. Literary and Debating Societies taught men to think for themselves, to express their thoughts and to maintain their own views before others. College Societies led to a better mutual understanding on the part of those who differed in their outward circumstances. They also tended to form a College tradition in regard to what the moral and intellectual life of a College should be. It was through the life of those Societies that the tradition of the College and sense of loyalty to the College was handed down from one generation to another. The lecturer next said a few words on the dangers which beset College Societies and their life. There was always the danger of using hero worship in the wrong way. Clubs were not a little given to cliques and to the tendency to degenerate into mutual admiration Societies. There was also the danger of wasting time over to the social and intellectual life of a College to the detriment of the real College work. He concluded his address with the observation that the College Society was, could and ought to be one of the most fruitful, possible means of propagating their ideals and their enthusiasm and of stimulating the intellectual life of its members.

The Chairman, in congratulating them on the really stimulating address of the evening, spoke a few words about the value of Inter-collegiate Societies in a University. It was his experience at Oxford that it was the Inter-collegiate Societies that were more valuable than the College Societies. He hoped that the time would come soon, if it had not already come, when such Inter-collegiate Societies might flourish in Madras, where members from different Colleges might discuss matters of common interest.

COLONEL H. D. LOVE, R. E.

IN connection with the retirement from service of Col. H. D. Love, R. E., who had been for close upon thirty years, the Principal of the Engineering College, Madras, there was a large gathering of his friends and numerous students, at the Civil Engineering College, on Saturday the 21st instant, to bid farewell to him on the eve of his departure to England, after a long spell of beneficent educational work in our midst.

Rai Sahib S. A. Subramanya Iyer, Executive Engineer, one of his oldest and most brilliant students, in addressing Colonel Love, on the occasion said :—

“Though it was your wish that this meeting should be a quiet and informal one, your past and present pupils feel they cannot refrain from saying a few words of farewell on your severing your long and memorable connection with the College and departure from this country. On behalf of myself and the large number who have received their professional training under you, I venture to give expression to the feelings of gratitude, admiration, regard, and affection that animate us. Engineers are proverbially strangers to the art of public speaking, and if our expressions do not truly and adequately reflect our inward feelings, we beg leave to assure you how genuinely happy we are to present our acknowledgments. For close upon thirty years, Sir, you have guided and controlled the work of this College and developed its influence with the single-minded purpose of advancing our status. Into the history of its work and development it is unnecessary at present to enter in detail, though to dwell upon them would be an occupation of the warmest interest to us. For the present occasion it suffices to refer to the greatest event of that history. When the Government of India resolved on recognising our talents and industry and on admitting graduates of the Local Colleges, into the superior grades of the Engineering Service, it was you, Sir, who predicted a full measure of success to the policy and rejoiced in the propriety of recognising and satisfying our aspirations. Through your exertions this College has always been famous for the maintenance of its discipline, and yet the kindness of spirit you brought to bear on your daily work rendered restraint pleasant to undergo and took away all irksomeness from a position which, so long as we had important training

to receive, we had necessarily to occupy. In the lecture-room your clear and masterly expositions and your imperturbable temper carried lessons home with admirable facility, and many were the occasions when the signal to stop lecturing, announced by the ringing of the College bell, was regretfully heard by us as a rude interruption. As an Examiner you always pursued the true policy of mercy, and no student, who had applied himself to his studies with reasonable diligence, ever found himself disqualified in the end and subjected to the disability of being debarred from pursuing his fortune in the open world. The spread of engineering knowledge among the classes of this country cannot but raise their standard of life, and in the work, in itself beneficent, of extending that knowledge, you have used so much sympathy and skill as have produced the happiest results by evoking our most enthusiastic response. From the dominant position assigned by Providence to the Civilisation of the West, England exercises a vast influence on the stereotyped and orderly albeit complex and highly advanced life of this country; but nowhere among the numerous points of contact of Western England with India of the East has that influence been so admittedly beneficial as in the educational line and through work wherein you have, in our estimation, gained such distinction. We cannot regard too highly the quality of sympathy in an administrator, and in spite of our customs and social institutions, the meaning of which is often a sealed book to strangers, you have treated us and brought us forward as well as if you were one of ourselves. Believing as we do in the effectual and beneficent working out of the great experiment of the British Indian Empire and in our being enabled to take an essential though comparatively humble place in its complex and powerful machinery, we rejoice in your having laboured hard and successfully in shaping us to that end. The whole world is throbbing with industrial life and energy, and he will be a bold man who undertakes to forecast in full measure how gloriously the seeds sown by you are going to fructify and what high-water mark your pupils are destined to reach with the incoming tide. We are still at the beginning of time, but even now the work that we are doing in the departments of sanitation, irrigation, road construction, and land surveying is a great advance on what it was hardly twenty years ago. In the fullness of time, our work is bound to expand and find fresh fields in railways, telegraphs, mining, navigation, and manufactures generally. Such a complete turn of direction has been given to the genius and energies of the country, through Providential forces operating to make the world more and more numerous and comfortably inhabited, that intellectual and religious pursuits which so long held easy sway are now rapidly subordinating themselves to an earnest industrialism. Such a turn is in harmony with the trend of modern progress through the world generally, and though there are still people here who would prefer the older civilisation of Asia to its modern rival of Europe and who would not let die even the merest formulae of a time-expired order of things, we recognise at once that an intense industrialism will be the established fact of a near future. We are proud, Sir, of the words used by His Excellency Lord Ampthill in describing the people of this Presidency on the occasion of his finally leaving these shores. He said in effect that our qualifications were well adapted to working in co-operation with Englishmen. Indeed, we must

confess to some catholicity of sentiment and some readiness to give and take. Possessed of these qualities we hope to place them at the service of Government when they extend practical recognition, and thereby to bring honour to this College and a return for your labours. These, Sir, as far as we perceive, are the scope and significance of your work; and it is, therefore, an achievement of which any educationist may be proud, and for which we once more tender our sincere thanks. And now, Sir, we wish you and Miss. Love a happy voyage and trust that you will live to a ripe old age in your native home. It may not be given to us or many of us to see you again, after you quit our shores, but we will all hold your name in affectionate remembrance. On your part, Sir, we believe you will often think of us and rejoice in our prosperity.

And now, Sir, farewell. It is with feelings of deep regret that we part with you, but there remains behind the consoling thought that you have laboured strenuously and nobly in this country, and that the example of your sympathy and fellow-feeling for those whose guide and instructor you have been may lead to a wider fusion of thought and feeling between Indians and Englishmen in this country. Farewell!"

Colonel Love was then garlanded, after which he made the following reply :—

MR. SPRING, MR. P. S. SIVASWAMY AIYER, MR. NOWROJI, RAI SAHIB SUBRAMANYA IYER, and GENTLEMEN,—I think we must all agree that the speech we have just heard constitutes an eloquent reputation of the Chairman's diffident disclaimer of ability to speak in public; but I feel strongly that your sentiments for me to which he has given expression are all too kindly partial and that you accord me far more praise than I deserve. I may say, with pride, that you have

Been to my virtues very kind;
Been to my faults a little blind.

I will not assume an attitude of ultra-modesty. I know that the College of Engineering has made progress, great progress, during the long period that I have been honoured with its administration. But nothing can stand still. An institution must advance or it must retrogress. With this College, I am thankful that it has been advancement. It would have been scandalous had it been otherwise. Look at the immense advantages I have enjoyed. First, the Government, which lays down the general lines on which the College is conducted, has always been liberal and sympathetic. Secondly, I have had the co-operation of an able and most devoted staff and, thirdly, there has been a long succession of students who were as eager to acquire professional knowledge as they were ready to submit to stringent discipline. Under such conditions the gradual development of the College became a labour as fascinating as it was absorbing. I often think that we do not sufficiently realise the liberality of Government. Government has enormous claims on its attention and on its purse. Everyone is knocking at its door and begging for money or its equivalent. No Chief of Department, no head of an institution, can get all he would like; but I have found that by knocking often enough and loudly enough, this College has received

large and sympathetic consideration. Your Chairman has wisely refrained from entering into details of the history of the College during the last quarter of a century; but, perhaps, I may be pardoned if I look back across that long interval and picture to you in a few words the place as it was when I first assumed charge. I found an efficient College and an efficient staff as gauged by the ideas of efficiency which then prevailed; but everything was on a small scale. The building was the old portion of the structure now occupied, once the palace of Nawab Walajah of the Carnatic and his successors. The fine Hall in which we are now assembled, the Museum below, and the lecture rooms attached, were all non-existent; the western extension of the old building had not been thought of. There were no Laboratories, no Workshops. The Reading Room was then the Model Room, and the Engineer Class, or, as it was called, the First Department, worked in a section of the existing Library, and possessed the domed chamber on the roof as its mathematical lecture room. Professors were unknown, but there was a 1st Assistant for Mathematics. There was no Gymnasium and no Recreation ground. In those days Indian students were absolute strangers to cricket, football and hockey, and had no opportunity of receiving the immense physical and moral benefits which participation in outdoor games confers. Survey camps were undreamt of. Each class went into Chepauk compound one morning a week for a couple of hours. The instructor manipulated the solitary instrument, and the class crowded round and looked on. No Annual Calendar was published. There was no independent Board of Examiners. When the season of examinations came round, the Principal approached his private friends; and I can assure you that he often had to exercise his power of persuasion to the utmost to induce them to undertake such unremunerated work. Far be it from me to depreciate the work done in the time of my predecessors. The condition I have endeavoured to depict by negations was the high-water mark of progress steadily made during the quarter century anterior to 1880. I describe the condition merely to indicate that the advance was maintained and even accelerated during the succeeding quarter century. Those of you who may be privileged to see the end of the quarter century to come will doubtless find the existing College as small and imperfect as to our eyes of to-day appears the one I have been describing. For the improvements that have been introduced since 1880 we are indebted to many sources. It is impossible to name all persons who have contributed; but I cannot refrain from allusion to successive Directors of Public Instruction, especially Colonel Macdonald and Mr. Grigg; to the College Reorganisation Committee of 1881 to 1883 which was presided over by Colonel (now General) Shaw-Stewart; and to the members of the instructional staff, such as Messrs. Chatterton and Middlemast, the first Professors appointed by the Secretary of State; the late Mr. Goddard, who did so much for the improvement of the teaching in surveying; and those valued members of the present staff whose earnest work is well-known to many of those now present.

Your Chairman has alluded to one feature as standing out prominently, namely, the opening of the higher ranks of the Public Works Department to qualified Indians. This policy was, as you are aware, inaugurated by the Government of India in 1881, to take effect from 1885. As so long a time has since elapsed, it will not perhaps be an indiscretion to mention

that pressure was brought to bear on me at that remote period to assent to the substitution of guarantee to the Engineer Class of two upper subordinate appointments per annum in a fairly high grade, for the guarantee of one Engineer appointment, proposed by the Government of India. I declined to agree to this proposition, and I venture to think that subsequent events have demonstrated the soundness of my refusal. Gentlemen, I must not pursue these archaeological researches further, but I am sure you will understand my reluctance to leave a subject which interests me so much. I have handed over the institution to one who is well acquainted with its history and requirements—one who has rendered important services during the years that he has been a Professor and who has been to me a tower of strength. Under his guidance I am confident that the College may look for great development in the future. I feel I have already said far too much about myself, but on an occasion when old friends have combined to display their attachment and to do me honour, it is difficult to avoid the use of the first personal pronoun. Next to the appreciation of the Government I have served nothing gives me greater satisfaction than the esteem of friends. I am profoundly affected by the spontaneous movement made among old students to commemorate my work here, and I am proud of the evidences of regard which you have given by your Chairman's words and by your presence here in such numbers. Some of you have travelled long distances, at much personal inconvenience to take part in this farewell gathering. From others, who were unable to obtain leave, I have received the kindest letters. When in the future I look back on my life in this most picturesque and historically interesting city, nothing will give me greater pleasure than the recollection of the many friendships I have formed here, and of the regard which I have been so fortunate as to win from Indians with whom I have been associated. Unwillingness to say that final word Good-bye must be my excuse for prolonging so unduly these remarks. Perhaps, however, it may not be absolutely final. After years of absence one naturally desires to return to one's native country, but possibly an adequate experience of rain-clouds, fogs and low temperatures may induce another visit to the Orient to renew acquaintance with the sun and other old friends. Whether I return or not, I hope always to keep up communication with India; and be assured that this day makes an impression on my life which nothing can ever efface.

Mr. B. O. Reynolds, on behalf of the staff of the Engineering College, presented Colonel Love with a group photograph of the members of the staff, which Colonel Love accepted with pleasure, saying he would always treasure it. The meeting then terminated.

THE IDEAL UNIVERSITY.

At a public meeting of the South Indian Association held at the Ranade Library, Mylapore, recently, Professor E. E. Genner, M. A., of Oxford, delivered a very interesting and instructive lecture on "The Ideal of a

University." Mr. P. Lakshmi Narasu Naidu, the President of the Association, was in the Chair.

In the course of his remarks the lecturer observed that though he recognised the usefulness of teaching commercial subjects, and that there should be for that end Technical and Commercial Colleges, he did not think that the aim of University, properly so called, should be to teach commercial subjects. Nor was it desirable that a University should teach any subject in commercial spirit or for a commercial end. A University should not concern itself with the commercial value of the education given there.

It was somewhat of a common idea in England that a University Education unfitted a man for a commercial career. These people did not understand the real function of a University. The studies which students had to undergo in a University should be such as not to unfit a man, as often in England, for commercial pursuits. America was ahead of England in that respect. In the American Universities the standard aimed at was one of general culture without undue specialisation. In particular the literary and scientific sides were always combined. The ordinary degree should not include special professional training, but the University should provide post-graduate courses for the study of professional subjects. There should be grades of recognised teachers for such post-graduate courses, and students should be encouraged to do research work, by the founding of scholarships and by other means. The main thing was that the teachers and the taught should be in touch with the intellectual life of the country in the fullest sense.

The lecturer then spoke of the qualifications of a teacher, who, he said, must have the ability to sift facts, to go to the bottom of things, not to take statements on trust, whether they be of a scientific, historical, philosophical or of a literary nature. Turning next to the governing body of a University, the lecturer said that the persons interested in the government of University consisted of three classes, the teachers, the graduates and the general public. The teachers generally took a narrow view of the situation in their own interest, the graduates were very much inclined to keep things as they were in their days, and the general body of the public were likely to know very little of the real situation. Considering the inherent danger of all the three classes managing together the ordinary business details of a University, he was of opinion that the management should be entrusted to the teachers themselves. They should be left to work out the general details of the curriculum and discipline, and only as a last resort there should be an appeal to the outside public. Questions of policy and finance would undoubtedly depend upon the outside public.

On the question of the relation of Government to the University, the lecturer observed that the State should see that an institution which it charters and whose

degrees it recognises in various walks of life is setting up a proper standard and that it is meeting altered conditions in the country. University Commissions were appointed to see to these matters, and in Oxford they had had two such Commissions during the last 54 years, and a third was being formed. It was also the duty of the State to see if private benefactions were forthcoming, and if they were not, it was the duty of the State to step in. It was also the duty of the State to control the expenditure of public money in so far as it supplied the sinews of war itself. In England, private benefactions to Schools, Colleges and Universities were very common, and that, no doubt, depended to a great extent upon the results education produced. The lecturer then spoke as to how far the State could legitimately interfere with the internal working of a University or the Colleges composing it.

Finally, he observed that every University ought to be National University. He did not mean that all the teachers should be of one nation. The earliest teacher at Oxford was a Frenchman, and one of the Professors at the present day was a Russian. By a National University he meant the healthy outcome of the national life, supported by all that was best in the people, and that which was based upon the people's will. It did not merely pander to the sentiments of the man in the street and the best element in the country accepted its leading. That implied an absence of class prejudice and class distinction. The idea of a University being national implied an absolute equalisation of opportunity to all, without any distinction of caste or colour. It implied the creation of a general interest in and a desire for education for its own sake. The idea of a National University implied that the subjects taught were the best in the national life, not necessarily traditional but those which represented fully the best elements in the national life. He regretted that during the last fifty years Oxford and Cambridge were getting more and more divorced from the life of the country. The lecturer then dwelt on the influence of corporate life in quickening the thought and the moral character of the individual.

The Chairman, in bringing the proceedings to a close, spoke of the ancient Universities of India, such as those at Nalanda and Nuddeya.

COMMERCIAL EDUCATION.

MR. A. J. YORK presided at a Public Meeting of the Madras Commercial Club, held in the C. S. M. College Hall, on the 19th instant when Mr. C. Gopala Menon, F. I. P. S., F. I. C., A. I. B., read an interesting paper on "Commercial Education." There was a large attendance.

In the course of his lecture Mr. Gopala Menon referred to the backward condition of commercial education in this country. It was high time now to improve it and he would suggest the establishment of Faculty of Commerce attached to every one of the Universities in the country.

A discussion followed, in which Mr. D. A. Stuart and Mr. C. S. Raghunatha Row took part, the latter regretting, in the course of his remarks, the action of the Madras Chamber of Commerce in not adopting the proposal to make Madras a centre for holding the London Chamber of Commerce Examinations.

THE CHAIRMAN'S SPEECH.

After thanking the lecturer for his interesting paper, the Chairman said he remembered the question of the London Examinations coming up before one of the meetings of the Madras Chamber of Commerce, but the need for those examinations not having appeared to the members, the matter did not receive their support. He was certain, however, that if they had any idea there was really a demand for them they would have warmly espoused the cause, and in this connection it was rather unfortunate that the Indian community was not represented on the Chamber of Commerce. He would like to see the leading Indian merchants taking more interest in the commerce of the town and bringing their views before the Chamber of Commerce whenever occasion arose.

Speaking on the subject of lecture, the Chairman said that since commerce was so world-wide now-a-days and so intimately connected with Agriculture, Engineering, Political Economy, Chemistry, etc., no amount of knowledge could fail to be useful to a commercial man always provided that he was also blessed with the rather rare quality called common-sense, to enable him to apply his knowledge. The lecturer had given well-deserved praise to the work done for higher commercial education by the newer Colleges of Great Britain, on the Continent of Europe and in America and Japan, and would have the Indian Universities to act similarly. That was a very good suggestion and one worth pressing in the proper quarters, and even the most conservative members of the Senate must admit there was force in the movement when they saw that not only the newer Colleges of England but even ancient Cambridge was now introducing a new tripos called the 'Economic Tripos.' He believed the new tripos would provide an excellent commercial education, as desired by the lecturer, but the votary of commerce had always to remember that no matter how good his school and college training might be, he would have to learn a lot when he got into practical business and could expect little in the way of return for the time and money spent on his education, unless he possessed the fundamental qualities of common-sense, reliability and energy. Men with those qualities and such a liberal education as was chalked out by the lecturer, no matter what their nationality might be, would find in business far greater prizes in the long run than either in Law or Government Service.

NATIONAL EDUCATION IN INDIA.

PRONOUNCEMENTS BY PUBLIC MEN.

PRESIDING at the distribution of prizes in the Kalayanasundaram High School at Tanjore, which took place on the 6th of this month, Mr. P. R. Sundara Iyer, High Court Vakil, Madras, made an interesting speech, of which the following is a summary :—

"Never in the history of any country had there been an instance of greater generosity and nobler magnanimity than the gift of liberal education and liberal culture to India by England. That was a fact which the Indians would do well to remember and be thankful for, whatever might be the differences of opinion between the the Indians and the Englishmen on other matters. Unfortunately, suspicions had been aroused in the minds of their rulers as to whether they had done the right thing to have pursued such a liberal educational policy in this country, and whether they had not over-educated Indians on the purely literary side, to the serious detriment of their industrial and economic progress. While it could be conceded that the education they had been receiving all these years had been too literary, he could not agree in thinking with Government that there was too much education in this country. He was in perfect accord with the Government in deploring that their education had not been more scientific and practical. Towards supplying the deficiencies in that respect, the Government were beginning now to turn their thoughts, leaving higher education and the promotion of liberal culture to the people themselves, if they wanted more of it. It, therefore, behoved them to strain every nerve and exert themselves to promote higher education. There was yet another reason why they should take care of their own education. There was a growing feeling of dissatisfaction that the education hitherto given had failed to create and foster in the minds of their youths ideals of national duties, and national virtues, and stimulating examples of noble and righteous conduct. That was true ; but it was a thing that had to be done by themselves, in their own national institutions, and in accordance with their own national ideals. The speaker was one of those who thought that the very best in Western Education and Western civilisation should be judiciously combined with their own national ideals and culture for their healthy progress. In indigenous institutions of that kind it was possible to give instruction in lofty duties of citizenship to teach useful lessons from the lives of their own great men, heroes and martyrs, and to preserve and cultivate in the minds of the youths a love and reverence for the past and a respect for authority. The promotion of education was an obligation cast upon the people themselves, and in the organisation of their village community that obligation was duly recognised and provided for. In every town there should be an Educational Committee composed of the enlightened citizens to take charge of the

instruction of the youths in that town in all the best Arts and Sciences and the best manner possible. People ought to tax themselves, if necessary, for the purpose; for no rate, no tax was more usefully spent than that devoted to the promotion of education and enlightenment amongst the people by the establishment of High Schools for boys and girls and a technological institute for industrial development where at their artisans could train and cultivate in modern methods, their inherited skill in arts and industries, and for the diffusion of elementary education amongst them.

The question had been frequently discussed whether it was permissible for students to take part in politics. In their period of Brahmacharin, students should learn everything, politics included, but learn in humble, receptive spirit, and in the manner becoming a true student for the sake of knowledge. Students in the College classes might learn everything that everybody talked about, even political topics, discuss them and arrive at some conclusions. There was no harm done so far, and that would be perfectly consistent with the requirements of their Brahmacharin life but the moment they translated their conclusions into action they overstepped their province and entered upon forbidden ground before their minds were fully matured and their intellectual faculties fully disciplined and developed. It was a misfortune to the country that while yet young, immature and impulsive, boys should be called upon to take part in politics. The peace and calmness of study should not be disturbed and their minds agitated prematurely by controversial contemporary politics in respect to which calm and correct judgment was difficult to secure. They were led into a mistake when they were told that English Boys took part in politics from a very early age and that they also could do so. But the conditions prevailing in England were not the same as those prevailing in India; and it certainly was not to the advantage of the boys themselves nor to the advantage of the country that they should be seduced from their studies and launched upon the troubled waters of politics. They were summoned to meetings, asked to take part in them; they spoke or acted violently, or created riots; they were arrested, tried and punished, while all the time, those that impressed them into service kept behind and looked on. In this matter boys should act subject to the advice of their teachers or parents. But, unfortunately, the teacher was being ignored, his province being considered to be bounded by the four walls of his school. The boys thought that outside the school no one had any authority over them to curb their independence to think and act as they liked. Parents nowadays took less interest in their boys, and did not know what books they read, what places they frequented, or whose company they kept, and the deplorable result was that students, subject to nobody's advice or control, were betrayed into the hands of false guides.

At the Students' Literary Association, Coimbatore, Dewan Bahadur L.A. Govindaraghva Iyer, B.A., B.L., delivered a lecture on "Young India," on

the 16th instant. The hall was crowded, and Mr. M. G. Arokiasawmy Pillay, B.A., a prominent member of the Native Christian Community, took the Chair.

In the course of a long and interesting address, Mr. Govindaraghva Iyer said that he was very glad he was addressing a large number of students on that occasion, for it was they who, at this moment, more than others, seemed to cause considerable anxiety to the well-wishers of the country and the Government. Their *confreres*, particularly in other Provinces, and for the matter of that some of them in this usually quiet Presidency too, had been found unnecessarily poking their noses into things which, in his opinion, they had no concern whatever with. He had always held—though some might differ from him, he was glad he was erring in good company—that students should take no active part in politics. Not only would it interfere with their studies, but would act as a heavy drag on the moral side of their character, when it must be the duty of every well-wisher of the country to promote. In their enthusiasm for any cause, good or bad, students very often forgot that they should not allow themselves to interfere with their elders, whose discretion and judgment in all matters, social or political, they had neither the ability nor experience to call in question. That was, no doubt, delicate ground that he was treading on, but he could not help saying that every true patriot in the country should set himself to dissuade the student population from losing their mental equilibrium and committing errors which they might, in their maturer years, have good cause to lament. The lecturer then dwelt at some length on industrial development, foreign travel, and early marriage. He also spoke about the proposed First Grade College at Coimbatore, and the liberality shown by its people in contributing nearly half a lakh of rupees for that purpose. He wished the proposed College every success. Before the close of his lecture Mr. Govindaraghva Iyer made an earnest appeal on behalf of the National Fund and Industrial Association, Madras, of which he was a member, and hoped that the collections in the District for the Deepavali would be more encouraging than in previous years.

After a few remarks from the Chair, votes of thanks to the lecturer and the Chairman were proposed by Rao Bahadur C. Nagoji Rao, B.A., President of the Association, and the meeting then dispersed.

MYSORE EDUCATIONAL EXHIBITION.

ON the morning of the 18th instant, H. H. the Maharajah opened the Educational Exhibition. It was originally intended that this should form part of the Agricultural and Industrial Exhibition, but space not being available in the buildings for the display of the British exhibits, it was

decided to make the Educational section a separate Exhibition in the premises of the Oriental Library. A large *shamiana* had been erected outside the building for the reception of the Maharajah. Shortly before the hour stated, the Resident and Mrs. Williams, the Dewan and Councillors, a number of English guests staying at Government House, and the leading officials and residents of Mysore assembled.

After the arrival of His Highness Mr. J. H. Bhabha, the Inspector-General of Education and President of the Educational Exhibition Committee, read the following Address:—

The idea of having an educational section of the Dussarah Exhibition was first suggested to me only so recently as the last week of August. In that week the Madras Department held the first Educational Exhibition in the history of the Education Department in India, of which the chief attraction was a large collection of the work of pupils of English schools received from the Board of Education of England and the London County Council. The Dewan visited the Exhibition and all the Inspecting Officers of the State and a few selected teachers were kindly permitted by Your Highness' Government also to visit it. The Dewan happily asked me to ascertain if the Madras Department would kindly lend some or all of the British exhibits for our Exhibition. I am glad to say that the Deputy Director of Public Instruction most cordially responded to my request and the Board of Education in England, who, during my last tour in Europe, had very kindly given me introductions to a large number of schools in Europe and America, cabled their permission to lend us the British exhibits.

There were many valuable exhibits sent by the Board to Madras which were not received in time for the Madras exhibition, but which will be exhibited in Mysore for the first time in India. In addition to the British exhibits received from Madras I have placed in the Exhibition a collection of manual training models, presented to the Mysore Department during my tour by the London County Council and also a large collection of drawings, designs, models and specimens of hand work presented by the Education Committees of Leeds and Bradford and a collection of nature study painting sent to me by Mr. T. S. Dymond, His Majesty's Inspector for Nature Study.

I hope the Exhibition will show to our teachers how greatly the ideals and methods of educationists in Europe and America have altered in matters relating to elementary education during the last twenty years; how children, from the time of their infancy, are thought to observe accurately and express their ideas of what they observe in works, drawings, or paintings, how nature study has become the basis of all early education, how the eye and hand are trained first in Kindergarten and later by constructive work, which, after the age of ten, takes the form of Agriculture in rural schools and of Sloyd, or wood, metal and machine

work in town schools; how the aim is to combine with accurate observation and clear reasoning a well developed body and healthy self-activity and a resourcefulness and will-power, which can only be acquired by scientific manual training.

If I may be permitted to mention a few of the principal exhibits I would mention the excellent nature study drawings, and paintings, clay models, needle-work, lace work and embroidery. The exhibits relating to all staples of domestic economy including cookery, housewifery, laundry work, the records of school journeys and of school work in every subject taught, the time-tables of the London County Council school and the schemes of science and other courses received from England. Then we have the models of wood and metal work of the London schools along with the models of Swedish Sloyd, as adopted and developed in the Boston Normal schools for teachers of Sloyd.

The exhibits of handiwork from the Model Primary School at Virarajapet and other schools in Coorg show what can be done by children in an Indian school. The exhibits from the Hindustani Girls' Schools of Mysore give promise of great improvement in the near future. The Mysore Normal School has sent excellent drawings and clay models. A large number of Kanara girls' schools and taluq and village schools for boys, have, in spite of the short notice, sent exhibits of a promising nature. It is proposed to give a few certificates of merit to those who have sent interesting exhibits.

Before concluding I may be permitted to express publicly the best thanks of the Mysore Education Department to the Board of Education of England, to the London County Council and other educational authorities of England and of Madras, who have so kindly given us valuable help. I must also thank Mr. and Mrs. Denham and the ladies who have kindly promised to help on the day set apart for the visit of Indian and Gosha Ladies, the Secretary, Mr. Ramasawmya and his assistants, as well as other members of the Exhibition Committee who have all worked zealously to make the Exhibition as far as possible a success within the short time at their disposal.

His Highness made a short speech in which he thanked the Madras Government and others who had placed a number of valuable exhibits at the disposal of the Exhibition. He congratulated all those concerned on the success which they had achieved, and trusted that the present Exhibition would be the first of a series of annual exhibitions of a similar kind. After declaring the Exhibition open and the usual presentations had been made, His Highness and the company then proceeded to inspect the Exhibition.

FREE PRIMARY EDUCATION.

THE subject of Free Primary Education was discussed by the Teachers' Association, Madura, with reference to the Government of India's circular of

December, 1906, at a number of meetings of the Association and after a full discussion, the following resolutions have been adopted.

THE SCHEME.

1. That in the opinion of this Association, the scheme of Free Primary Education contemplated by the Government of India ought to be given effect to at as early a date as possible.

2. That the Association accepts the proposed scheme as a substantial first instalment and as being intended merely as a convenient stepping stone towards compulsory Primary Education, a consummation, which, the Association hopes, will be reached in the not very distant future.

3. That the Association, however, wishes it to be clearly understood that it does not look for any immediate and startling accessions to the existing number of children at school.

4. That, however, the Association is firmly of opinion that, with the abolition of fees and the offer of other inducements such as the free supply of books, &c., to children contemplated by the scheme under consideration, the spread of Primary Education among the classes of peoples that have not yet been reached will be far more rapid than it has been heretofore, and that the time for taking the next step of making Primary Education compulsory also will soon come within a measurable distance.

5. That the Association, at the same time, recognises that great and persistent efforts will have to be put forth to bring home to the masses the advantages of sending their children to school.

6. That one thing they will have to be particularly and steadily kept in view by the directing agencies, if the scheme is to produce all the benefits which it is intended and desired to produce, is to make the curricula of studies, the hours of school attendance and the time of the annual vacations suit the customs, the occupations and even the prejudices of the people whose children in particular schools are set up to cater to, as for example, the two annual vacations in the case of village schools, should be made to synchronise, as far as possible, with the ploughing and sowing season and the harvesting season, so that the parents may be free to take their children to help them in their work in the fields and on the thrashing-floors without detriment to their studies.

WAYS AND MEANS.

7. That the scheme should be financed partly by the Local Government and partly by Local Boards and Municipalities—the Government of India giving substantial subsidies annually to avoid undue strain on the financial resources of the former bodies.

8. That it appears to this Association that one way of finding funds towards the cost of the scheme would be for the Government to prescribe a certain minimum, say 15 per cent. of their revenue to be spent upon Elementary Education by Local Boards and Municipalities in the same way as a minimum is prescribed in the matter of communications.

9. That the Association believes that with prudent retrenchment in several possible directions it should not be beyond the resources of the Government of India, especially in these times of annually recurring surpluses, to provide the large funds which the carrying out of the scheme will necessarily demand.

10. That, at all events, a part of the large profits annually realised from the coinage of silver may, without any violation of principle, be applied to this purpose, so that there should be no necessity to lay a special tax on the people on this account.

11. That the Association begs leave to state with all the emphasis of which it is capable that there ought to be no curtailment of the existing outlay on the plea of setting free funds for Free Primary Education; that, on the contrary, the Association firmly holds that as persons who have received a liberal education are a valuable asset to a country, the expenditure on them will increase *pari passu* with the growth of expenditure on Primary Education.

MANAGEMENT.

12. That this Association is of opinion that the agencies for the management of the schools under this scheme will, for a pretty long time to come, have to be either Governmental or quasi-Governmental, *i. e.* Local Boards and Municipalities.

13. That it may, in many instances, be available for Local Boards and Municipal Councils to constitute small committees of not more than five persons either from among their own members or others or both for the management of Primary Schools within their respective charges.

14. That power should be taken by Government for the formation of rural School Boards, so that they may be established wherever there are suitable bodies for their creation.

15. That the Association is, however, of opinion that the number of such rural School Boards, to judge from the spread of education and the popular interest in it at present, must, for a considerable time to come, be exceedingly limited and the areas under their supervision, very small.

16. That in localities where particular communities are numerous enough to require special schools for themselves, such schools should be provided as far

as possible and the managing agencies should include a representative or two from those particular communities.

STAFF.

17. That the Association is aware that even now when Primary Education has to be ordinarily paid for, and the number of schools is small, out of all proportion to the population of school-going age, more than 50 per cent. of the teachers are untrained men ; but it does not follow that because they are untrained they are necessarily unqualified also.

18. The Association has no intention of undervaluing the importance of a special course of training, particularly, in the case of Primary School Teachers. It accordingly recommends that with the inauguration of the scheme of Free Primary Education the number of training schools for this class of teachers should be considerably augmented, or in the alternative, the annual output of the existing normal schools should be largely increased.

19. The Association desires to record its emphatic belief that, if fairly qualified persons are to be attracted to the service of the existing Elementary Schools and to the large number of new ones that may be reasonably expected to spring upon the introduction of the Free Education Scheme, the present miserable pittance that are paid as salaries to Elementary School Teachers should give place to at least a living wage.

SCHOOL HYGIENE.

At the Second International Congress on School Hygiene held in London in August last under the presidency of Sir Lauder Brunton, the following subjects were discussed in eleven sections in the following general divisions :—(1) "The Physiology and Psychology of Educational Methods and Work" (Royal College of Science, New Buildings) ; (2) "Medical and Hygienic Inspection in School" (Central Technical College) ; (3) "The Hygiene of the Teaching Profession" (Imperial Institute) ; (4) "Instruction in Hygiene for Teachers and Scholars" (Imperial Institute) ; (5) "Physical Education and Training in Personal Hygiene" (Imperial Institute) ; (6) "Out-of-School Hygiene, Holiday Camps and Schools. The Relation of Home and the School" (University) ; (7) "Contagious Diseases, Ill-health, and other Conditions affecting Attendance" (Central Technical College) ; (8) "Special Schools for Feeble-Minded and Exceptional Children" (University) ; (9) "Special Schools

for Blind, Deaf, and Dumb Children" (Royal College of Science, New Buildings) ; (10) "Hygiene of Residential Schools" (Royal College of Science, New Buildings) ; (11) "The School Building and its Equipment" (Central Technical College). In each Section numerous aspects of the general subject were expounded and examined. We select some of the official "Abstracts of Papers and Communications."

Child Nature and Routine (Miss W. Hoskyns Abrahall, M. A., Bristol).—School education is based upon routine. Daily routine in connexion with personal habits is the only routine which for young children can be regarded as good. School routine is a hindrance to the development, and requires to be radically reformed. This might be done without delay. Thus, bookwork should be postponed till after eight years of age ; objective teaching adopted wherever possible ; life histories of all objects used should be first taught. No drill should be allowed before ten. The size of classes should be reduced. In infant schools and rooms used by children under ten, desks should be abolished, and the children sit on floor. There should be no time-tables in infant schools and a frequent interchange of teachers.

Medical Treatment at School in its Social, Economic, and Professional Aspects (John J. Cronin, M. D., Assistant Chief Medical Inspector, Department of Health, New York City).—About one-sixth of New York's children have had thorough physical examination, but treatment has been confined to a few conditions in about one-third of the 162 schools. The result of this treatment have led the health authorities to demand facilities for extending treatment to all conditions of contagious disease. It is advisable that the medical man should be "municipalized." There is a close analogy between the State control of transmissible diseases such as small-pox, tuberculosis, &c., and conditions favourable to the spread of contagion. The objections on social grounds are only of theoretical importance ; practical experience is in favour of such a scheme. The cost of treatment at school compares favourably with the necessary expenditure involved in securing the treatment of defective children by means of parental responsibility or through voluntary agencies. There is a great economic gain in the work done by efficient wage-earners of sound physique as compared with the inefficiency of underfed ill-developed children as industrial agents. The economic gain of recognizing the prior claim of public welfare should not be overlooked. Therefore treatment at school can be justified not only by results, but also on social, economic, and professional grounds. The treatment of particular conditions should be determined on grounds of expediency.

Medical Supervision of Infant Schools (Dr. Marion Hunter, L. C. C. Medical Staff (Education), London).—Medical inspection and power to compel parents to remedy the ills of their children is the first step to improve the natural physique.

We neglect curable conditions in childhood to treat them later in asylums, infirmaries, and hospitals. Compulsory, organized, universal medical inspection needed. School visited once a week. Education of mothers through medical inspection of infant schools. Absolute necessity of dental treatment in schools. Experience shows that the Medical Inspector should never take anything for granted, but should see all and test all. In towns school attendance should not be delayed at the younger ages in the infant schools. Many conditions are in a most remediable stage, notably tubercular bone diseases.

The Conditions of Health of the Backward Children in the Elementary Schools of Copenhagen (Dr. Paul Hertz, M. D., Medical Officer of Schools, Copenhagen).—In Copenhagen elementary schools auxiliary classes are formed for children of backward or slow mental development. Investigation into causes of their retardation showed that poor physique, bad home conditions, over-work out of school hours, adenoids, ear trouble, and deafness were responsible. This emphasizes the need of careful medical supervision and control of schools, with power to compel parents to adopt remedial measures when possible.

Education and School Hygiene (Dr. German Anschutz, National Board of Health, Buenos Aires).—Argentina has put the public schools under medical inspection by specialists, there being a Medical Bureau at the Central Education Office, consisting of Chief Medical Officer and fourteen other Medical Inspectors. They insist on proper buildings, baths, cleanliness, vaccination, segregation of defective children; country schools for debilitated children.

Danish Public Schools and its relation to Tuberculosis (Dr. C. C. Jessen, Physician, to the Public Schools, President of the Society of Physicians, Copenhagen).—The new Tuberculosis Act in Denmark is of the highest importance as a prophylactic measure. In the nineties, although diminishing, yet tuberculosis caused 14 per cent., and actual phthisis 10 per cent., of the Danish mortality. No great danger of child-to-child infection, but teacher-to-child infection may be serious.

Hygiene as a School Subject in Elementary Schools (Mr. Henry Kenwood, M. B., D. P. H. Professor of Hygiene, University College, London).—Hygienic habits have to be taught in school. Not necessary to teach the mechanism of respiration in order to inculcate the value of fresh air. The simplest hygienic training aided by frequent informal talks should permeate school life. The home and the parent can often be reached through the school and the child. Open window drill as a practical lesson.

The Teaching of Hygiene in Secondary Schools (Rev. H. B. Gray, D.D., Warden, Bradfield College).—Instruction in hygiene is required in youth. Training of body should be combined with explanation of cause and effect; also values of food stuffs should be taught. Disapproves of long lessons and cramming for

scholarships. Teachers should know the connexion between mental and physical conditions, and how best to draw out the various dispositions. Emphasizes the need of instruction sexual natural laws to ensure orderliness of conduct, both moral and physical.

Medical Supervision of London County Council Secondary Schools (Dr. Janet Campbell, M.D., M.S., L.C.C. Medical Staff, Education).—Medical supervision of these schools has only been undertaken recently. Most of the pupils intend to become teachers: therefore systematic inspection is necessary to maintain the standard of health at highest possible level, and to eliminate at an early stage those pupils who through physical defects are unfit to become teachers. Every child is examined soon after admission, as to vision, hearing, teeth, general physique, and condition of heart, lungs, and spine. Measurements of height, weight, and girth are taken. A permanent record of this examination is kept for future reference. The parents are notified as to defects of which anaemia (with associated headaches), lateral curvature of the spine, and round shoulders are the commonest in the girls' schools. Much may be done to improve the physique by remedial exercises, and the co-operation of the drill mistress in these special classes is essential. It is important to guard against overstrain in the case of delicate children. Games, such as hockey, tennis, and cricket, form an important part of the curriculum, but even then medical supervision is very necessary.

Medical Supervision of Secondary Schools in Sweden (Dr. Gottfrid Jornell, Medical Inspector of Schools, Hernasand, Sweden).—Secondary schools in Sweden have Medical Inspectors with well-defined duties. The school building, ventilation, arrangement of work, drill, and any point connected with health of those attending are under the medical inspector's care. He must attend free any poor children requiring treatment. He must attend the drill class once a month. He confers with head master and gymnastic teacher whenever required.

Ear Disease in East London School Children (Miss Frances Ivens, M. S. London, L. C. C. Medical Staff, Education).—This paper is the result of an examination of 1,000 children aged 10 to 14, in the upper half of the elementary school, as to acuity of hearing, condition of tympanic membranes, and association of deafness with presence of adenoid growth and other throat diseases. Nearly one-third of the children had deficient hearing, and 74 per cent. of these cases are associated with morbid conditions of the throat. The mental capacity of each child was estimated by the teacher. The tables show that, whereas 26 per cent. of the children with normal hearing attained a high degree of intelligence, only 17 per cent. of those with deficient hearing, and 14 per cent. of those with bad hearing, were placed in the same class. Removal of adenoids with suitable training in nasal breathing is followed not only by cessation of otorrhoea, but

also by great improvement of hearing ; and the lack of power of attention and concentration, so characteristic of mouth-breathers, is lessened. For these reasons all school children should not only be systematically examined for the presence of adenoids, but also should be efficiently treated. The habit of nasal breathing and the use of the handkerchief should be taught.

The Importance of School Anthropometrics in the Study and Control of National Evolution (John Gray, B. Sc., Hon. Treasurer, Royal Anthropological Society).—The object of anthropometrics is to collect exact data of the physical and mental characters, of the health, and of the environment and conditions of life of the people. Correlations between man and his environment can then be calculated, and our racial evolution studied and to a great extent controlled. A uniform scheme should be adopted ; measurements should be made once a year. The analysis of statistics should be made by a central staff, where possible. There are two methods by which the average efficiency of a population may be improved—namely, (1) the eutropic method, which includes good upbringing ; and (2) the eugenic method, which improves the stock by selection or good breeding. Eugenic principles are, apparently, ignored in this country. The only way to ascertain whether an insidious process of national deterioration is taking place is by comparing measurements of successive generations. The first step in this direction is the measurement of school children.

THE MADURA EDUCATIONAL CONFERENCE.

The Annual District Educational Conference for the provisional allotment of grants to aided Schools and the admission of new schools to aid was held in Madura from the 21st September to the end of the month. It was presided over by Raja Khan Sahib, the Assistant Inspector of Schools, and was attended by the seven Sub-Assistant Inspectors and the thirteen Supervisors of Primary Schools in the District. There were several novel features in the proceedings of the year as the Conference did not content itself with merely getting through the routine work for which it is officially convoked. These features the Conference owed to the enthusiasm and inspiration of Mr. L. C. Williams, Inspector of Schools of the Division. Elementary education has entered upon a new stage, and great and vital changes of principle and policy have of late been introduced into both the Educational Rules and the Grant-in-Aid Code. Mr. Williams conceived the excellent idea of taking advantage of this gathering of all the educational officers of the District to take stock of the results that have been achieved so far, and to lay down the lines on which work should proceed during the next twelve months. He accordingly arranged for the reading of a few papers on the most important subjects connected with Elementary Education. One of them on "Our Elementary Schools and How to Re-organise Them" was read by Mr. N. S. Jambunatha Iyer, of the Madura Range, in which he made several practical

suggestions with reference to the directions in which they might be usefully remodelled. Mr. I. C. Abraham, of the Dindigul Range, read a paper on the "Co-relation of Studies" and Mr. V. Seshagiri Sastry, of the Tiruchuli Range, read another on "Nature Study."

Mr. Williams, who opened the Conference with an inspiring and suggestive speech, presided at the reading of all the three papers on three different days. The papers were followed by discussions in which the practical experience of these educational officers was brought to bear with very useful results. Among the more important points discussed were the hours of school attendance, half time schools, curricula of studies and time tables to suit the different grades of elementary schools. The Educational Rules and the Grant-in-Aid Code were also discussed in the light of the experience gained in the actual working of them and certain desirable changes were suggested. Both Mr. Williams and Raja Khan Sahib evinced great interest throughout and ably guided the discussions towards reaching proper conclusions. The papers and the discussions occupied three days, at the end of which a group photograph was taken of all the District educational officers with Mr. Williams as the central figure.

It is hoped that the useful innovation introduced by Mr. Williams will be maintained and be improved in years to come. One improvement especially may be suggested here. Presidents of Taluk Boards and Chairmen of Municipal Councils and representative Managers of Elementary Schools may, with advantage, be invited to join these discussions, to avoid the danger of the questions considered being looked at through official spectacles alone.

RAJAHMUNDY COLLEGE.

The following Government Order has been issued :—

"With reference to sub-paragraph (iii) and (iv) of paragraph 13 of the previous Government Order, it has been represented that the effect of the order, as worded, is to inflict a more severe penalty upon students who do not already possess the certificates required for admission to the B. A., degree examination and to the First-in-Arts Examination respectively, than upon the students who do possess the required certificates.

2. It was not the intention of Government, in passing the orders referred to, that transfer and term-certificates should be refused indefinitely to the students of the two classes. The intention was that, *qua* appearance for the B. A., and F. A., Examination, respectively, all the offending students should be placed on the same footing, that is, the students of the third and fourth year classes, whether possessing term certificates or not, should be debarred from appearing for the B. A., Degree Examination before December 1909, and that the students of the second-year class should be debarred from the First-in-Arts Examination prior to December 1908.

3. It is understood that the students by losing the first term of 1906 have already lost an entire year of their College course, and the Principal of the Rajahmundry

College will be instructed to grant to the students, before the commencement of the next academical year which applies in each case, the term-certificates covering the period of past attendance to which they otherwise would have been entitled except for the misconduct for which they are under punishment. The issue of these certificates will be withheld till the close of the year in the order that improper use may not meantime be made of them. The grant of transfer certificates will follow as a consequence of the grant of term-certificates.

The effect will be to admit the students in the two classes referred to being able to prosecute their studies in Colleges to which under the terms of G. O., No. 385, dated 18th June, 1907, they may be admitted, so as to qualify for appearance at the B. A. Degree Examination to be held in December 1909, and to the First-in-Arts Examination to be held in December 1908, respectively, but not earlier.

THE Dindigul Municipality has resolved to comply with the request of the local branch of the District Agricultural Association to hand over to that body the Municipal garden for a period of eight years for the purpose of carrying on agricultural experiments.

THE CINEMATOGRAPH IN SCIENCE.

THE popular view of the Cinematograph is that it is a sort of showman's toy, but in its recent application to science, more especially Zoology, Bacteriology and the work of the surgeon, as well as to various industrial studies and military and naval matters, the Cinematograph has been proved a valuable means of scientific education. Probably very few people are aware that the instrument is used by the United States Government at the launching of battleships, not only that a record of the event may be available, but that in case of mishap the responsibility may be fixed by examination of the film, on which every moment is faithfully reproduced. The French War Office uses it for military purposes, and the British War Office may also use it eventually, for Lord Roberts has advocated its employment on several occasions. But its greatest value is in Zoology, Bacteriology and Surgery. By means of the Cinematograph zoological knowledge is popularised, and the representation of experiments in vivisection obviates the repetition of operations on animals of which students regret the necessity, and from which many people are so averse. In Bacteriology also the instrument is of great service. We learn from an interesting pamphlet by Mr. C. Urban F. Z. S., that his Micro-Cinematograph displays germs and microbes, magnified from two to seventy-six million times, in all their activities, so that their action may be studied without difficulties and dangers attending study of that kind under ordinary circumstances. But it is in surgery that the instrument has achieved its greatest triumphs. By its means the rarest operations, which a student would probably not see performed by a master of surgery more than four or five times in the course of his career, may be seen in detail over and over again. Dr. Doyen, of Paris, has used the Cinematograph for years, and the secret of his most difficult operations is thus available to surgeons in all parts of the world.

A TAMIL HUSKER'S SONG.

MR. L. NARAYANA IYER has sent the *Madras Mail* the following which he claims to be an exact translation of a favourite Tamil action-song which, he says, used to be sung by girls of school-going age in the Tamil Districts of the Madras Presidency; but nowadays it does not appear to be as vigorously followed. Moreover, with the modern-day prosaic seriousness of life several such healthy pastimes are being neglected and are fast going out of fashion with the fair young folk :—

Grown up mothers youthful sisters !
 All that husk the paddy grain !
 Move the seeds with both your feet
 Till they the pavement floor should gain.
 Tighten up your sober garments,
 Stand erect and steadily too.
 Come ! Oh ! come ! ye village maidens !
 Place the foot in front of you ;
 Stoop anon and lift your pestle,
 Drop it gently, down again.
 From the paddy husk the grain,
 Whizzing, hissing, as you pant,
 Heavily, heavily, let it fall.
 Thump ! it falls ! Oh ! let it fall !
 Drop it down you one and all,
 Gather merrily round and round
 And winnow all the pounded grain.
 Blow your breath upon the paddy
 Find if there is any bran.
 Put it back into the mortar
 Pound it well as well you can.
 Now, keep aside your massive pestles,
 Winnow merrily once again ;
 Measure out all the husked off rice ;
 For your grandame old and wise.
 Quickly, quickly, move the bran
 From all the pounded heaped up rice ;
 Then fill the basket with the grain
 Till it cannot hold again.
 Take we then our little moppet
 Sweep we well the pounding floor,
 Clean we all around the room
 And keep it tidy evermore.
 Oh ! let us form a merry ring
 And with one chours cheerily sing
 Singing on us further bring
 Happiness and heavenly bliss.

NEWS AND NOTES.

For some time past the Managing Board of the National Fund and Industrial Association, Madras, have had under contemplation the holding in Madras of a competition among the different kinds of handlooms in use in all parts of India with a view to find out the kind of looms most suited to the requirements and conditions of the indigenous weaving industry, more especially of Southern India. In consultation with Mr. Alfred Chatterton, the general lines on which the competition is to be conducted have been settled and the Managing Board of the Association will soon appoint a Committee to settle the details. In the meanwhile, the Government of Madras were approached in view to their co-operation and aid. Government have made a grant of Rs. 2,500 on condition that the National Fund and Industrial Association spent Rs. 1,000 from its own funds which, we are informed, that it will do. The Government have also placed the services of Mr. Chatterton at the disposal of the Association in connection with this matter. The competition, we understand, will be held some time in February or March next year.

A CORRESPONDENT of the *Bookman* tells of the difficulty of expressing to an author a genuine admiration of his works. The author was the late Mr. David Christie Murray. "I was one of the last half-dozen," he says, "who lingered to chat with Murray in the Whitefriars club-room; and as he and I went downstairs, leaving the others behind, it was open to me to say something to him of my immense admiration of certain of his books, and how sincerely glad I was to have met him. "Anne feels such an ass, saying this kind of thing and I find it so difficult to say," I remarked, 'that I do hope you won't think me a humbug, and that I'm simply saying it with some silly notion of flattering you. I really mean every word of it, and more.' "I know how difficult it is," he said, as we shook hands at the door, 'but I am very glad that you said it—it does me good. Like Oliver Wendell Holmes, I'm fond of the sweets."

WITH a view to improve the general knowledge of the teachers employed in the Elementary Schools of Madura town and the neighbourhood and thereby to fit them better for their work, which has now to be carried on on the improved lines laid down in the new Educational Rules, Mr. N. S. Jambhunatha Iyer, the Sub-Assistant Inspector of Schools, Madura Range, organised a course of lectures. These lectures were delivered in homely Tamil in the Madura College Hall on the afternoon of the first Saturday of every month. The lecturers were the Inspecting Officer himself and a few of the senior teachers in the Madura College. Three lectures had already been delivered, the subjects being "The Story of Plants", "The Story of Animals" and "Indian Administration, as an Introduction to Civics." Three more were delivered before the end of the year on air and water with experiments and simple astronomical notions as an introduction to the study of Geography, with lantern views. That the lectures were appreciated was obvious from the fact that the attendance, which at the first lecture was sixty, doubled itself at the next two. Mr. L. C. Williams, the Inspector of Schools of the Division, took a great interest in this experiment, and he caused it to be notified that such of the teachers as attended the full course will be given certificates signed by him.

MR. ANNA SUNDARA GOPALAIYER, of the Sourashtra community of Madura, an old pupil, has subscribed Rs. 500 towards the Madura College Endowment Fund. The subscriptions now amount to Rs. 42,000.

THE Secretary of State has made the following appointments to the Indian Education Service:—

Mr. Alfred Charles Bray, B.A., of Jesus College, Cambridge, to be Professor of English at the Morris College, Nagpur.

Mr. Henry Lambert, B.A., of Trinity College, Cambridge, to be an Inspector of Schools in Bengal.

Miss Mary Elizabeth Honeyburne, M.A., of Victoria University, Liverpool, to be a Junior Inspectress of Schools in Bengal.

Mr. W. S. Hadaway to be Superintendent, School of Arts, Madras.

MR. A. CARNEGIE has given £10,000 towards the establishment of a Technical College at Aberdeen.

SIR RAYMOND WEST has resigned the Lectureship of Hindu and Mahomedan Law at Cambridge University, which he had held for twelve years.

PROFESSOR STEVENSON, of Bala College University, in succession to Professor Robertson, resigned, was formerly Examiner in Arabic and Syriac at the University of Edinburgh.

THE late Miss Geanes, a Quakeress recently converted to Buddhism, has bequeathed three million dollars to the Quaker College at Pennsylvania, on condition that the students henceforth refrain from entering into Collegiate athletics.

NATIONAL MEDICAL COLLEGE AT CALCUTTA.

WE gladly publish the announcement for the establishment of a National Medical College at Calcutta, which is an institution independent of the University and is manned by staff of eminent Professors. The members of the staff are:—Lt.-Col. R. L. Dutt, M.D., I.M.S., Lt.-Col. K. P. Gupta, M.D., F.R.C.S., D.P.H., I.M.S., Major N. P. Sinha M.D., I.M.S., Dr. S. K. Mullick, M.S., M.D., (Edin.), Dr. J. N. Mitter, M.D., L.R.C.P., (London) Dr. H. C. Sen, M.A., M.D., Fell. Cal. Univ., Goodeve Medal, Examiner Cal. Univ., Dr. K. N. Mukerjee, (late, Civil Surgeon, ex-Amir of Cabul), Dr. R. C. Roy, Dr. Gec Jonston, M.D., F.R.C.S., (Lond.), Dr. S. C. Choudhry, B.A., L.M.S., (Hon.) Dr. A. Ray.

DEGREES.

L. M. S. (Nat.) L. C. P. & S. (Nat.) 4 years V. L. C. P. and S. 3 years. Fee Rs. 3. Scholarship for England.

Special classes for backward pupils—Dissection, Practical teaching in Medicine Surgery, Midwifery. Boarding for mofussil students, classes for female students and compounders.

Apply to—

S. K. MULLICK, M.S., M.D.,
198, Cornwallis Street, Calcutta.

The
Indian Journal of Education.

Vol. XLVII. Old Series.	} NOVEMBER—DECEMBER, 1907. {	Vol. XVI. New Series.
----------------------------	------------------------------	--------------------------

The Ancient Universities of India.

(By an Educationist.)

I PROPOSE in this article to take a brief survey of the nature and influence of the ancient Universities of India. Before doing so, let me refer to some of the main features of the ancient Universities of the West with a view to see how far similar conditions were fulfilled in India also, and to what extent she was able to reap the beneficent results which such conditions may be expected to produce.

A University has been very aptly defined as "a school of knowledge of every kind consisting of teachers and learners from every quarter." To get an idea of what an ancient Western University was, we shall betake ourselves to the history of ancient Athens. The University of Athens was founded, as we all know, by Kimon, the son of Miltiades. The first site of this University was fixed in the wild woods of Athens which were traversed by handsome foot-paths and studded with delightful springs. The sight of the natural scenery, the chirping and warbling of the forest birds and the sweet odour of the pure air charged with fragrance from the flowers were all very refreshing to the student and afforded immense facilities for close attention and rigorous thinking.

Anthony-a-wood, the great writer of antiquities, discoursing on the site of a University, wrote, "First a good and pleasant site, where there is a wholesome and temperate constitution of the air; composed with waters, springs and wells, woods and pleasant fields; which, being obtained, those commodities are enough to invite students to stay and abide there."

This was exactly the nature and site of a University in ancient India. In the heroic age of Indian History we frequently hear of Forest Univer-

place, the teacher, instilled into his pupils divine wisdom. It is said of the great Buddha that he too led a forest life, being a pupil under a Brahman teacher. In these Universities, all the subjects of study received equal attention. We learn that in one famous University about sixty-five professors busied themselves in teaching all the subjects, including Medicine, Astronomy, Astrology, and Mathematics. The best of every kind of knowledge was available in these Universities. Just as in Athens people from all parts of Europe assembled for the express purpose of acquiring knowledge, so also, in these Universities people from all parts of India flocked together for instruction in the various branches of knowledge.* As an example of such a University may be cited the famous Buddhist University of Nalanda. There, ten thousand pupils studied Theology, Philosophy, Law, Science, and Medicine. Taxilla in the Punjab was another such famous University which was frequented by students from distant parts of India. After a course of nine, eighteen or thirty-six years, these Universities awarded certificates to students for various degrees of proficiency. It is interesting to note that Panini, the greatest grammarian in Sanskrit, Amara, the greatest lexicographer, and almost all the nine gems of the court of Vikrama, were the products of these Universities.

One point of difference regarding the mode of imparting instruction between the ancient Universities of the West and those of the East is worth noticing here. Instruction was oral in the University of Athens. It may sound strange in the ears of a twentieth century book-monger, but true it is, that in the age of Plato and Thucydides, there was not, it is said, a book in the whole of Athens. Libraries were the inventions of a later age. The student had to acquire knowledge through the senses. Lectures and catechetical discourses were the means by which information was imparted and knowledge gained. This direct contact of mind with mind had a power for good which far transcended every other means of disseminating knowledge. The student had neither pompous books, nor daily newspapers. The whole day was spent in 'imbibing the invisible atmosphere of genius,' in studying sculptures, in scrutinising paintings, and in attending theatres to learn how a tragic or a comic poet would write, or in listening to the harangues of Demosthenes to learn to what height the flight of oratory can attain.

Let us now turn a while to see what was the case in India. Here too, instruction by *Shruti* was the usual practice. The accumulated knowledge of ages was transmitted from ear to ear. As a *Sishya*, the student learned from his master whatever the latter could teach him, and in the evening of his life he taught as a *Guru* all that he had learnt as a *Sishya*. Knowledge also

multiplied itself in this transmission, since every succeeding *Guru* added his own learning by experience to the stock of knowledge already handed down to him by his preceptor. But here it should not be understood that independent thinking was sacrificed at the altar of Memory: only the text was got by heart and the commentary was all the teacher's own. There is absolutely no foundation for the belief entertained by some that ancient Indian learning was all a matter of rote work and involved no exercise of critical thought. It is not true that the student's memory was trained at the expense of his understanding. The reason why nothing was committed to writing in India was that the art of writing had not yet been introduced. People did not know how to write. The art of writing was first introduced into India by merchants. These carried on a maritime trade with Babylonia and brought back to their land of birth an early form of the Armenian Script. This script with many alterations, was first adopted in recording, on palmyra leaves and granite, the ancient learning of Aryavarta; but in Athens writing was extant even before the Universities came into existence.

We shall next see what was the predominant character of the learning that was prevalent in these Universities. In India special attention was paid to the Religious and Philosophical studies while in Athens the education was pre-eminently practical. Owing to the division of social functions as represented by the caste system, the Brahmins were privileged to be the repositories of old learning, and they felt themselves specially bound to secure all that learning because there were no books in those days. Every pupil was taught to observe the sacred rites, feasts, fasts and ceremonies, to study the sacred books, to chant the holy mantras and to perform worship thrice a day. The sacred thread of the Brahmin boy besides indicating that his childhood passed off and studentship began and that he should feel the responsibility of his duties, also showed that a second birth—a spiritual birth—had taken place and that he should be initiated into the mysteries of Philosophy and Religion. Supreme importance was attached to the study of religious literature and religious practices, because it was firmly believed that morality was closely allied to religion, that the end of both was self-realisation, and that, unless this were made the end, morality would, at best, be artificial. Our student was required to lead a life of unsullied simplicity. It was enjoined in the *Manusmriti*: "Let the student refrain from wine, meat, perfumes, garlands, tasty and savoury dishes..." The teacher and the parents were taught to be looked upon as gods. Nothing was allowed to be done without their consent, up to a certain age. Our student, further, was not allowed to marry until his educational career was completed. With regard to physical education, no special or

unnatural methods were prescribed for acquiring physical strength. This was naturally acquired, in the performance of the daily routine of active work enjoined for him by the scriptures and in the discharge of the duties of private and public life which he voluntarily imposed upon himself. Education was thus liberal and not professional.

In Athens, religious education was not so much cared for. The people had, indeed, great faith in gods but no definite line of religious studies was marked out for the learner. Moral education was very much cared for, but it was not organised in the belief that religion afforded an indispensable basis for morality. Physical education was considered very necessary. The Greeks pursued athletics with great ardour. But the Athenians were not so mad after its pursuit as the Spartans. They even regarded the Spartans as brutalised by their physical training. Political education was also very much cared for by the Athenians. But in India, this education was confined to a special class.

Another interesting feature in the Athenian Universities was that a well-to-do professor endowed chairs; state-aid was not so much depended upon. This contrasts strangely with the Roman Universities where chairs were endowed by the State and high functionaries were the professors. Herod, the man who once held the office of Consul in Rome and who was the heir to a munificent fortune devoted his whole life to the career of a professorship in the University, and made over the whole of his fortune for the encouragement of learning.

In India, as in Rome, learning was much patronised by the kings. It was thought that it was the bounden duty of a king, divinely imposed upon him, to educate all his subjects. Free education was thus given in the Universities and private charity was not requisitioned for its support. The University of Nalanda was under royal patronage and about ten thousand students received free education. This had its peculiar advantages and was productive of very useful results. With no distractions of any kind and being free from all anxiety regarding the payment of school fees, the student was able to apply himself closely to his books. The idea of taking remuneration for teaching was foreign to the Hindu mind. And the king was particularly averse to it because he felt it his duty to educate his subjects. Under this system of free education under the patronage of kings, the student enjoyed other advantages which were denied to those placed in different circumstances and educated under different conditions. For one thing, he was completely exempt from all fear of being arrested by the bailiffs. As the king's man he enjoyed the confidence and respect of his townsmen and hence expected no kind of trouble from them. Such advantages placed him

in a position which was highly favourable to the calm and quiet pursuit of his studies. Thus India was able to produce the most brilliant pioneers in every branch of science. In Astronomy the Indians far surpassed the Greeks. Their system was even translated by the Arabs. Though after the Muhammadan ravages of 1000 A. D. science declined considerably, yet, even so late as 1702, we hear of a Hindu Astronomer, Raja Jai Singh, correcting the list of stars published by the famous French Astronomer Deha Hire.

In Medicine too, the Hindus were far in advance of other nations. We learn that Charaka, who lived before Christ, was often quoted in English medical books written in the middle ages.

As for law, every one knows that the Mitakshara is a standard work on Hindu Law which even the European Lawyers of the present day hold as authority. In every branch of knowledge, the Hindus attained eminence and this was mainly due to the institution of the Gurukula. In these Universities, as we have already said, there was ample scope for the exercise of thought and innumerable facilities for the same. Original thinking was here fostered and mutual co-operation and joint research were possible. There was scope for the exercise of the poet's imagination, and the constructive art flourished in the midst of favourable conditions. The surrounding natural scenery gave to the students an impetus to write poetry. A proof of this is to be found in the exquisite delineations and beautiful nature-paintings that adorned the pages of the works of some of the Sanskrit poets that then lived. The forest life was also favourable for making observations on the stars and conducting astronomical researches. The extreme quiet and tranquillity of this life was also favourable for speculative thinking, and the development of the different systems of Philosophy which now attract the world's attention ought to be traced eventually to the mode of study which was in vogue in these Universities. It may be stated without any fear of contradiction, that where this mode of study is not possible to any extent and where such facilities for study cannot be commanded, philosophical research in any real sense is only an illusion.

Again, in these Universities, the teacher was in *loco parentis* to the pupil. Having left his home and wandered far, the pupil found a father in the teacher. The teacher, in consequence, particularly looked after the education of his pupil and took particular care to guide him properly in his conduct towards his fellows. Being in the constant company of his teacher, the pupil had his character silently moulded after the pattern of the teacher's. Stimulated by the tender thought of the pupil's helplessness and loneliness, the teacher earnestly worked for his advancement and did all he could to train his mind in the best manner possible. The earnestness of the

ancient *Guru* stands thus in broad contrast to the indifference of the modern teacher who works for wages and tended in those days to strengthen the bonds of union among the members of that body by invoking the tender feelings of humanity, and taught the world the lesson, which under the modern stress of circumstances is allowed to be forgotten, that, where there is no heart no real work can be done and all is sham.

Pestalozzi.

(By an *Educationist*.)

THE object of this paper is not to recount the details of Pestalozzi's varied and interesting life, but to draw a rough sketch of it with a view to show wherein the greatness of his character lies and how he influenced subsequent educational work. His father died when he was five years old, and his life and movements were hence exclusively controlled by his mother and a maid-servant of the family the latter of whom continued to help her mistress till the end of her life. To these two personages Pestalozzi owed some of his best qualities, such as, his feminine affection for children, his openness of heart and his spirit of self-denial. He became aware of this influence in his later life and always spoke of them in the most affectionate terms. By these guardians, however, he was not given much out-door freedom, in consequence of which he became physically weak, clumsy and excitable, which made him the laughing-stock of his friends at school. His teachers took him for a dunce, but his friends liked him because he was good-natured and obliging.

For sometime he lived with his grandfather, who was a clergyman, and, imbibing the tenderest of feelings towards the sick and the poor, he hoped to become a pastor like him in some country church. But another force worked upon him in the meantime and gave a different turn to his taste. The influence of the French Thinkers made itself felt in Switzerland, and Pestalozzi came within the sweep of that influence. He studied the works of Voltaire and Rousseau, more particularly those of the latter, and, being inspired with a strong love of justice, liberty, beneficence, and patriotism preached by those writers as against the oppression of the age, thought he would be better able to help the poor and oppressed peasants of the country by taking to Law. But he soon found that there, as elsewhere, politics was a profitless and hazardous game. Hence he gave up Law and took to farming in the hope of putting an end to all the evils of the peasants by improving the art of agriculture. Here too, he was disappointed.

He borrowed large sums of money, purchased some acres of land, and with the co-operation of his wife, Anna, carried on his agricultural enterprise with great ardour, but, with all that, the enterprise proved a failure.

Now came the turning-point of his career. His wife and himself began to feel that they were becoming too self-centred and were losing sight of the patriotic and philanthropic ideas which had inspired them before. The birth of a child gave Pestalozzi an excellent opportunity to study closely the habits and characteristics of childhood, and, throwing overboard the traditional theories of old, thought out a new plan of educating children. Being struck with the spontaneous activity of children, he thought he might utilize it by providing them with scope for tilling the land and practising some industries. While the children were thus engaged, it struck him that he might give them, some moral and intellectual instruction also. His idea was by this means to enable the poor people of the country to secure their self-respect and happiness without submitting to oppression. He started a Boarding School for twenty children. He dressed them, fed them, and had them always with him in the garden, the field and the house. But when the numbers increased, as naturally they would under these circumstances, he had to give up the enterprise for want of funds. After this work failed, he became very poor himself but never gave up the idea of reforming the poor. When later on his circumstances improved, he is said to have remarked, "I can say to-day with gratitude to God that it is by my own misery that I learned to understand the people's misery and its causes, as those more happily placed could not do." He was evidently cut out for the reform work of Education, not of agriculture. He contributed 180 aphorisms on Education to a paper conducted by a friend of his, embodying his original ideas on the best method of teaching. In 1797, he published his "Researches into the course of nature in the development of the Human Race" which was the most important of his works, containing his most fertile discoveries which furnished the clue to his whole method of education. His philosophy of men and education was briefly this:—There are three classes of men or three natures in man, the animal man, the social man and the moral man. The childhood of individuals, as of races, represents the animal period, youth the social period. But the animal man struggles against the social man and prevents him from asserting himself. Each seeks to enjoy the liberty he would deny to others, and monopolise all the pleasures. This leads to quarrels, and laws and government become necessary which means dominion on the one hand and subjection on the other. Open attacks being forbidden, people resort to all kinds of dodges and cunning. Hence, society and civilization degrade man, and if he

wants to escape from these evils he must pass into the third stage, the moral stage. This is the work of man himself, because the principles of justice, benevolence, pity, gratitude and charity are implanted in him by God, and he must exercise and develop them. The function of education is to enable these latent principles to manifest themselves by removing the impediments in the way.

A fair opportunity offered itself to him to put into practice these principles. The Revolution in France was about this time completed and the young Republic wanted to extend its influence to Switzerland also. After much opposition and bloodshed, it succeeded in remodelling its Government in its own image. In the opposition, all the men and women of Entenward that had gathered together in the church of Stans were murdered by the French soldiery, and the Directors of the new Government took charge of the poor orphans. Pestalozzi was not quite opposed to the new form of Government because he thought it would be beneficial on the whole to the peasantry. He proposed to the Directors that he would undertake the education and the bringing up of these orphans. They fell in with his proposal and entrusted the orphans to him. He had a house built for them at the cost of Government, and entered upon his duties with fifty children. Success was immediate. But he followed no method in his teaching. There was no classification of boys and all the education they received was by their contact with nature and with his kind and fatherly spirit. Superficial observers found nothing but discord in the orphanage, while closer scrutiny disclosed the inner beauty of the institution. But one thing made Pestalozzi extremely unpopular. He never believed in the Christian Dogmas, nor did he preach them in school. His faith in God was nevertheless unbounded and he always preached morality and true religion without any reference to creed or dogmas. But this did not satisfy the people, and hence when the Directors broke up the orphanage in order to shelter the sick French soldiers in it, the people strongly protested against its being re-opened. This roused the spirit of Pestalozzi and he exclaimed, "I will be a schoolmaster." With the experience that he gained in Stans in regard to the practical bearings of the theories of Leonard and Gertrude, he next offered his services as a teacher at the little town of Burgdorf. Through the influence of those that could see his merit, he secured a footing here and taught for eight months. The Inspection Commission made a public record of their appreciation of his work. This attracted public attention, but the Swiss Government which was moved to help him, could not do so owing to the embarrassed condition of the finances. Thus, Pestalozzi's evil genius followed him even here, and his scheme once again fell through.

At this juncture, with the help of another man, Krussi, who was in every way fitted to share his work, he opened a training class for elementary teachers and continued to work in it for three years. In this institution the gulf between home and school was bridged over. It was not a school, but a family, and the one bond that tied them all—the teachers and the pupils—was the bond of love which father Pestalozzi bore to the children. The children knew *well* whatever they knew. They all looked very happy in school and took a great deal of pleasure in their lessons, which speaks a great deal for his method. He was about to revolutionize Switzerland with his new method, when, owing to reform, revolution and confusion that reigned and the consequent instability of Government, he lost all Government support and became helpless. The castle of Burgdorf was wanted for the prefect of the district, and Pestalozzi was offered a convent of Munchenbuchsee. But Pestalozzi left this town, and on invitation went and settled in the castle near Yverdon. His old assistants gathered here in a month, and the most celebrated institution in the history of education arose. To it came teachers from distant countries, some of them sent by their several Governments to learn the methods of Pestalozzi. Boys also came, and either joined the family of Pestalozzi, or lived with their several tutors receiving instruction from Pestalozzi. This points to the popularity of his method and hence to his powers of original thinking. The Germans, humiliated by Napoleon, began to recoup their strength, and for this purpose they hit upon education—Pestalozzi's plan of education in special—to raise the moral and material condition of the people. This fact is particularly noteworthy and decidedly points to the greatness of the man. No doubt this institution also shared the same fate as its predecessors; but it has left behind it the stamp of his greatness. With the opening of the institution at Yverdon, the old family system revived, but now the family became a small nation of various peoples speaking different languages and professing different religions. This told upon the unity and harmony of family life, and strife and discord gradually crept in. These internal dissensions increased, and Schmid, a shepherd boy who by his ability in Mathematics subsequently became an assistant master of the institution, quarrelled with every other soul in the institution, especially with Neiderer. Schmid had to be turned out, but, when matters grew worse, he had to be called back. This exasperated Neiderer. Pestalozzi had also to lose Krussi, his wife and other friends who had remained long intimate with him. All this gave the greatest pain to Pestalozzi. He was not also able in his ripe old age (81 years) to stand the calumnious Press attacks instigated by Neiderer. He sank down into bed with fever and breathed his last in grief and sorrow.

His was a great life. His sacrifice in the cause of education finds no parallel in history. The unbounded love towards his children is well worthy of imitation. This factor of love plays a very important part in the modern practice of education. His own personal life was unblemished and could well be looked up to for example. There was perfect harmony between his preaching and his practice. He was god-fearing and had the greatest regard for humanity. The patience and perseverance which he displayed in all his reverses and failures were amazingly great, and are really worthy of our admiration. He saw his country poor and desolate, and the people trodden down by the nobility of the land. He set about improving their condition, and to a certain extent succeeded in his mission. He propounded a new method of education which all tended in that direction. He preached self-help to them and exhorted them to depend on none but themselves. He practically pointed the way to that independent mode of life and earned their gratitude. He was a teacher not of the poor alone, but of humanity at large. In all these features lie the greatness of the man.

*School Apparatus and Appliances.

MRS. E. D. ALLAN.

HUMPH! What a dry-as-dust subject, I hear many say. Yes, dry-as-dust, while we regard it as so many black-boards, maps, pictures, models, etc., which that teasing Education Department insist upon being provided in our schools. But seriously regarded it makes almost a cult, and while apparatus is generally understood to be only an accessory to teaching it is yet only second to it. Indeed so important was it considered at one time, that it seemed to take even *first* place in some quarters, as witness the "recognition" of a school being often contingent on certain apparatus being provided. But as some one has wisely remarked, all knowledge requires three stages—one to go forward, a second to go backward, and a third to right itself. And we may now claim to have reached the third and happy stage, for in the latest Educational Rules, that regarding apparatus reads simply and briefly—"The provision of much apparatus need not be insisted upon, but there should be a supply of suitable pictures and other simple appliances."

But simple and even indulgent as the rule reads, its very indefiniteness makes it rather difficult to work out. Too little, or what is nearly as bad too much apparatus may together find shelter under its interpretation. A right appreciation, however, of the true aim and purpose of apparatus will help to a right interpretation of the rule.

* Read at the Madras Educational Exhibition 1907.

Apparatus, the Dictionary tells us is "something prepared, a set of tools and appliances." And in those two words "prepared" and "tools" lie the *mind and matter of* apparatus. It is no mere machinery but of the very nature and essence of education, since that preparation which lies at the root of all conscientious teaching inseparably joined to it. Here then is the reason for the Education Department's almost arbitrary insistence on certain apparatus being furnished in our schools. How much depends upon this conscientious provision and preparation of our teaching tools only those know who practise it. Indeed it is not too much to say that no lesson is complete without it. There is just the difference between a lesson with apparatus and a lesson without it as there is—let us say—between the all alive moving pictures of the Cinemetograph and the still lifeless views of an old fashioned magic lantern—"The teacher is sure to show us something interesting to-day, and I must not miss going to school," the boy will say when tempted to stay away. Here then is a cure for the indifference and poor attendance so constantly complained of in our Elementary Schools. Yet more will the boy's interest and regular attendance be helped, if his services are invited in the preparation of the morrow's apparatus. He may be asked to contribute a live-hen, or an egg, or even some feathers in a lesson on the fowl—a more talented pupil may be asked to make a model of clay or wood bearing on a certain lesson. This is a very practical form of home-work for the children.

Yet we must be careful not to overdo or force apparatus. The story—a true one—is told of a teacher who was giving a lesson on some geographical definitions before an educational officer. The master had carefully provided a large slate, a lump of mud and some water to illustrate an island: but just outside the school-house, easily seen through a window, was a river displaying a natural island. The lesson over, the educational officer asked a child, fully anticipating the answer given "How big is a real island?"—"இவ்வளவு," "so big," came the ready answer, indicating a piece of his thumb just the size of the island on the slate. No doubt the teacher's appliances were in strict training-school style, but such a grotesque and forced use of apparatus is to consider the instrument before the end. Apparatus, therefore, should as far as possible be natural, not forced, or so fussy or obtrusive as to defeat its own purpose. We should make use of all appliances and illustrations *at hand*—not necessarily *in hand*—remembering that in teaching as well as in Theology, the things that are not understood are understood by the things that are seen, and it is only where nature's aid fails that should step in. Some of us are familiar with Longfellow's lines:—

" And Nature the old old nurse
Took the child upon her knee,
Saying here is a story book
Thy Father hath written for thee"—

There is much in them for the teacher in search of suitable apparatus and apt illustration, and it is a good sign that nature-study is coming more to the fore in our schools.

But now to the real business of furnishing a school with necessary apparatus. Here the black-board must take the first place as the instrument *par excellence* in the hands of a teacher. Given a teacher with a fair idea of drawing, the black board may be made to do duty for maps, pictures, diagrams, ball-frame, etc. Therefore, black-boards should be many and ample. Better than the old black-boards are "black walls." They are squares of blackened cement let into the walls. They are saving of space, of wear and tear and dust and carriage. They should be let into every available space of wall. A class may well be surrounded by four such walls. Here on one is a statement of a sum just taught the children—on a second are exercises on the same problem to be worked out by the class—on a third is the skeleton of a map drawn by the teacher or a pupil in anticipation of the day's lesson—on the fourth remains the black-board abstract of a lesson given the day before. By this plan there is not that constant rubbing off and clanging what is written, and the matter by being allowed to remain a whole morning or even a day on the walls is likely to be better impressed on the minds of the pupils. Those who have used these walls know the delightful comfort of them—no cramming of information into a limited space, no knocking up against the black-board and nearly toppling it over by a nervous and awkward teacher. Space is conserved, air and ventilation unobstructed and a neater appearance is given to the class as a whole.

Care must be taken that these black walls are so placed that the light falls on to the backs of the children and right on the walls. Some of them should be low enough to be used by the infant class, and in this case utility may be made beautiful by a *dado* of dark (not necessarily black) wall being provided in the room occupied by the infants, where they can indulge their love of drawing without let or hindrance. *This* is free-arm drawing, if you like, and one can imagine a child's keen delight in it. A very liberal supply of coloured chalk should go with these walls, and the children, big and little, encouraged to use them in and out of school hours. How much undreamed of talent may thus be brought to light!

Next to black-boards come good maps and pictures. I say *good*, because the Indian market is only too apt to provide us with caricatures of the real object—a riot of colour with very little truth to the original. Bell's pictures are good. They will cost more but better do without minor items of apparatus and have them good and in plenty. A very good plan is to cut out of magazines and children's books good pictures of animals and objects and to paste these neatly on big pieces of card board, 3 feet by 4 feet, for hanging on the walls. Such a collection is often better than the stereotyped pictures sold for school use, to say nothing of its economy.

Besides the map of the District every school, even that of only the first two standards should have a map of the world. Most elementary schools cannot afford *many* maps, but in a map of the world we have all maps in one, and any and every geographical name that chances in a lesson can be referred to it. Then too, it is simpler to beginners to see the world as a whole than in bits, as represented in single maps of continents and countries.

All maps and pictures should be hung up on the walls during school hours, and not stored away in closet or chest to be brought out only for a special lesson. What of the wear and tear? This is more than balanced by the gain to the children. "A room hung with pictures is a room hung with thoughts," said one of our greatest painters and the chief worth of a picture lies in the idea or thought it is intended to convey to the eye. Our foolishness therefore in putting away maps and pictures under the mistaken notion of saving them, is on a par with that of the man who being surprised by a heavy shower of rain bought himself an umbrella in a shop near by—but it was such a good one that on coming out again, to preserve it from the rain he put it under his waterproof! How many an Englishboy can trace his easy knowledge of Geography to the maps hanging in a beloved father's study, or in the large entrance hall of the dear old home! Maps and pictures become impressed on children's minds and as the latter expand, they will refer to them, learn from them, and thus considerably ease the work of teaching. A young child has sometimes surprised me with a piece of information—"How do you know?" I questioned. "I noticed the picture on the wall" was the reply.

Good models come next, and among them the globe comes first. What a world of interesting knowledge may be opened up by its intelligent use! Small wonder then that the educational authorities made so much of it under the old rules (and I am not so sure that they do not under the new) as on one occasion to call forth the official dictum—"no globe, no backs to the benches—recognition withheld till provided." Nor is it enough that the globe be furnished. It should be in constant use, even in classes where

geography is not taught as a distinct subject. The children ought to handle and examine it for themselves more than they do, and apply to it and the map whenever any geographical reference chances in a lesson.

Then with regard to other models, in these days when clay-modelling and drawing are so much the vogue, good models are almost indispensable. Models of anything and everything, a sort of *omnium gatherum*, will be as useful as another "Enquire within upon everything." Is it a lesson on the mango—when mangoes are out of season—here is a fine model of a mango carved in wood or modelled in mud and realistically painted? Is it a lesson on the Indian method of ploughing—in a town school where the real thing cannot be easily seen—here in our collection are models of plough and oxen carved by the boys with a turn for carpentry? Or it may be a lesson on the boat, here then is a whole collection of boats from the primitive catamaran to the finely finished specimen used in a university boat race. And so on. Indian children are clever at modelling and there should be little difficulty in getting together such a collection of models.

Following naturally upon this would be a school museum, and where space allows a school garden. Their educational value is too well known to be enlarged upon here. It is enough to say that both ought to be almost entirely the work of the pupils big and little. It is too often left to the master, the pupils just helping. But where it is made the business of the pupils, all being pressed into it, there will be scope for that unity and *esprit de corps*, so lamentably absent in our lower Indian schools. The classes in a school are separated by distinct studies teachers and other interests, but here is common ground for all, something in which every child may bear a hand with one end in view.

A school museum suggests its twin—a school library. But this is not usually required in an elementary school of four standards. In most of our village schools it is hardly practicable, that is, in its outer fabric of a book-case with its neat rows of numbered books and its registers of entry and issue, etc. Yet much might be done by the teachers to encourage reading and the free circulation of good books, if only a few, among the scholars. "Reading maketh a man," and to neglect it is to neglect one of the most potent factors in the education of a child. Vernacular translation of sound old English books and much of vernacular literature itself are being placed in the market at cheap prices; and the pleasures of Shakespeare, the fascinations of Robinson Crusoe, the mirth and pathos and moral of Hindu folklore, the inspiration of good biography and much else that is good, are now within the easy reach of even our village children. Here is a grand opportunity if we would make conscientious educationalists.

What here applies to the pupil applies still more forcibly to the teacher. Every teacher in our vernacular schools should strive to have a library of his own, and to cultivate the habit of reading generally and widely. He may not be able to afford to purchase many books, but he might borrow them and in turn lend the few he possesses. His books must be a teacher's best tools for teaching himself. If the pupils need *their* apparatus, a teacher certainly needs *his* in his books.

Time fails me to talk of the many admirable but lesser items of apparatus. Besides, the main intention of this paper is to deal with the most practical and common-sense use of ordinary apparatus by ordinary teachers in ordinary schools. But given these—and they are the least we can do with,—many and ample black-boards (black walls), good pictures and maps and models, a museum and garden, and where practicable, a library—all other needs, or notions if you like, must be decided according to the standard of the school, its locality, i. e., town or village, the class of pupils taught, and the funds available. But an intelligent resourceful teacher will make his apparatus as occasion calls for it, without having his school stocked with all the latest and most expensive apparatus. For example instead of the tellurian, an appliance beyond the reach of most schools, the rotation of the earth on its own axis and around the sun, and that of the moon round the earth, and the causes of night and day and the eclipses may be taught in a sort of game. A boy in the middle of a chalked circle holds a bright light to represent the sun—a second boy representing the earth turns round and round on the chalked circle—a third boy goes round the earth-boy to represent the moon. How simple! Not an anna spent, no troublesome machine to keep in order and yet the same if not better results. Again for ball-frame, an ingenious teacher might provide strings of tamarind and other Indian seeds—the children themselves collecting and stringing them with so many of each sort alternating. Instead of the single ball-frame for the class, each child could easily have a string. This and the tellurian game savour of kindergarten but there is a wealth of ideas for apparatus in kindergarten alone, and as a *method* of teaching it ought to be practised in the higher as well as the lower classes. There are also many ideas for simple, inexpensive apparatus to be had from the exhibits round us.

Having furnished our school with what we consider necessary apparatus, it is now our duty to see that that apparatus is well looked after—not by being put away in closet or chest, but while constantly in use during school hours, it should be carefully handled, repaired as soon as necessary, renewed when too old, and added to as funds permit. A teacher should value his apparatus as a workman values his tools, and he should take the same pride

in it as he does in good inspection results and big grants. Dirty black-boards, rag-rags of pictures and maps, broken ball-frame, decrepit benches, time-piece lying on its side or back to induce it to go, a bell *minus* its handle, or worse still its tongue—who is not familiar with this picture in our school life? Such a condition of things may be relied on as an index to the general state of the school, and the responsible teacher should be more severely dealt with than he is. It is this want of care of the apparatus that makes managers chary of providing the necessary appliances or of renewing them when old. And—teachers take notice!—in distributing apparatus to a set of schools a manager may be relied on to send the best and largest share to the school where apparatus is well looked after.

And now as a last word, let us turn again to the moral obligation underlying the meaning of the word apparatus. Latin *ad.* to, and *paratus*, prepared. How many of us “in the trivial round, the common task” of every day teaching, practise this preparation? How many of us have settled to-day what the apparatus for to-morrow’s lessons should be? How many of us have seen that that apparatus is usable and in good repair? But this “doing the thing as one sees it, for the God of things as they are” (to quote Kipling) is so sadly lacking in our ordinary school life and until we attain unto this conscience in our work, we shall make small progress. But all through our educational system a decided quickening is going on, a better conscience is at work, and we are daily approximating to the ideal, getting “nearer and nearer every year, to the vision and hopes we hold so dear.” This exhibition is but the outward expression of this quickening and better mind. Let us look around carefully, intelligently, studiously, and cull all there is for us to learn and use. “Mother” said a little boy, “Is the sermon ended now?” “No dear” was the answer, “we are going home to practise it?” The mother’s answer supplies us with the moral of this exhibition. Some of us will be returning to the dull up-hill work of a distant village school, some to the strenuous competitive life of a town school, others to the prickly positions of managers and educational officers, but wherever our work may lie, let us keep steadily before us this practice of things, and doing so we shall one of these days surprise ourselves at our goal when Indian education will proudly take its place with the best in the world.

Moral Education.

(Arthur MacDonald, Washington.)

I am glad of the opportunity and honor of giving a talk on moral education before a leading Chapter of one of the most distinguished organizations of women in our country. The subject is of special importance to women, since it deals primarily with the training and care of children, especially those who are unfortunate and weak.

Morality, Chief Element in Education.

ONE of the main objects of education is to eradicate or at least modify or correct unfavourable tendencies in mind, will and body, and to develop favourable ones. That is, the great purpose of all education should be *moral*. For an individual may be a good citizen with little knowledge, if he has sound morality, but the reverse is not true. For any education or teaching which develops the mind without equally developing the moral impulses may become a dangerous education, for where the recipient goes wrong, he is a more astute enemy of society and can do more evil than a thousand citizens can do good. If, as some claim, we must emancipate the mind and liberalize the spirit, we must be all the more solicitous as to moral education; for the old religious ideals are almost inseparably connected with moral ideals, and an effort to separate them may be a reform in the wrong direction. Anti-religious intolerance is not only worse, but more injurious than religious intolerance.

Moral Education to lessen Crime, Pauperism and Degeneracy.

WHILE moral or reformatory education is the most important, it is strange to say, the most neglected. One of its purposes is to lessen or prevent crime, pauperism and degeneracy by the teaching of mental, moral, and physical habits, especially to the young; that they may be better protected, and prevented from going wrong. The prison should be a reformatory and the reformatory a school.

There is special difficulty in teaching even a minimum system of morality, for the desideratum consists not only in inculcating general principles but by indicating courses of conduct in detail. Generalities elevate the moral tone, but details incarnate the principles.

Inmates of Institutions should be studied thoroughly.

THE inmates of institutions for the delinquent and dependent differ little or none at all from individuals outside. The excellences and defects

of an educational system can be carefully studied in these institutions, for all are under the same conditions and can be controlled in all details of their life. Here is an opportunity for the rational method of treatment, which is first, to study the unfavourable characteristics, and, second, to investigate their causes as far as possible. Knowledge thus gained will be the most reliable in correcting evil tendencies or preventing their development. By such a method no sudden results should be expected; gradual progress is all that can be hoped for. A thorough study of this nature in penal and reformatory institutions is possible; the effects of the method of education can be closely observed physically, intellectually, and morally. Thus, when, for instance, an inmate ceases to reverse his drinking cup after using it, which is required for purposes of cleanliness and order, this, though a very slight thing in itself, indicates that he is becoming careless and losing his will power to reform. By a sort of radiation other negligences are liable to follow, confirming the direction in which he is tending. A good report from his keeper, on the other hand, can signify a new resolution of the will. Thus a series of records indicate, so to speak, the moral and intellectual pulse of the inmate. What might seem a very slight offence outside of a reformatory institution is not so within, where there is a minimum of temptation to do wrong and a maximum of encouragement to do right, so that there may be a gradual education in the formation of good habits which are the surest safeguard to the inmate after his release.

The same training for normal and abnormal.

THE training that must be relied upon to bring about the change in the abnormal character does not differ from the training that develops character and ability in the case of the normal individual. It endeavours to supply those things that the inmate has failed to receive in his earlier training. Among the very common neglects of his early life is that of school attendance. To make up for this, he is placed in school. The fact that the same functions are involved in both normal and abnormal processes (mental and physical) is one explanation why the same methods of education are applicable to both.

Many agencies are operating to drag children down. Homes broken by death, divorce, and desertion; parents utterly unfit for parenthood; step-fathers and stepmothers who have no love for their unfortunate stepchildren; evil companionship, poverty and other forces are increasing the delinquent class who must be cared for. The one great defect is *moral weakness*. There is some mental, some physical, delinquency, but every inmate sent us, in the words of an experienced Superintendent, is weak morally. He has

little or no conscience. The delinquent inmate was never trained to feel the sinfulness of wrong-doing. His only concern is not to get caught. With a disposition to profanity, untruthfulness, and larceny, it is a difficult task to so teach, train, and reform an inmate in a short space of time that he may go forth and develop into a good citizen. Many do well—some better than others—but that many making an effort to keep their parole agreements. Some of these will probably lapse, and others not doing well will probably improve. Most of the inmates going out really want to live a better life. They promise to keep out of evil ways, and are honest in their promises, but many are too weak morally to stand out against the temptations of life.

Palliative Measures not Sufficient.

To help the child withstand modern temptations, there is more need than ever of right moral feeling, firmness of will, and moral resistance; such characteristics cannot be produced by theoretical teaching alone. For though the children of the weakling classes may remain six hours in school, the rest of their time is spent in abodes of crime, squalid homes, or vicious idleness. While the reform schools are doing much, they do not reach, however, the very young at a time when influences for evil can leave indelible impressions. If these unfortunate children are to be educated morally and intellectually, it is evident that this can not be done unless they are removed from their pernicious surroundings. Early prevention is the most effective of all reforms. Philanthropic efforts are being directed to this end, but they have not proved sufficient for their support is not always assured, and not infrequently they are of a sporadic or palliative nature. It would seem, if anything permanent and effective is to be accomplished, the State and private endowment must assist.

Large sums of money are being contributed for palliative measures; yet crime and pauperism are increasing in proportion to the population* showing that such measures (almost the only ones) do not lessen these evils. It is not intended here to criticise in the least any effort to alleviate suffering; but such alleviation is usually temporary and may even increase the disease. The investigation of causes is therefore imperative, and this cannot be done without scientific study of the individuals themselves. It is due time that such study receive help.

* "Statistics of Crime, Suicide and Insanity", (by writer) and other forms of abnormality in different countries of the world, in connection with bills to establish a laboratory, etc. Senate Document No. 12, 58th Congress, Special Session. Government Printing Office, Washington, D. C., (195 pages).

About three-fourths are reformed.

THE statistics given by English and American reformatories indicate that nearly three-fourths of their inmates are reformed. A few who do not seem to be improved by reformatories are treated in various ways. Thus two boys who were vagabonds and thieves were sent to a family in the mountains, where they had a bed to themselves and regular place at table, and attended school. In two years they were completely transformed.

Hopeless cases very few.

THE number of hopeless cases is very small. The wonder is, that there are not more, when the wretched surroundings of some children are considered.

As children are sometimes born with strong tendencies or susceptibility to disease, and become weak and puny, so others are born with feeble moral tendencies, to such a degree that reformation is impossible, especially where such weaknesses have been allowed to develop. These are frequently cases of moral degeneracy, with strong hereditary taint. In some instances it would be as difficult to reform the characters as to change the shape of their heads.

Actual condition of weakling classes.

ACCORDING to the most thorough study yet made of the conditions of the weakling classes, 10 per cent. of the children attending school are in want of food; some come without breakfast because the parents do not get it for them; as a little boy said, "his mother got drunk and could not get up to get it." Such children are very irregular in attendance, which is a great annoyance to a teacher, not to say a waste of public money. Such children live in the poorest neighbourhood; they have no regular meals; fully a third live in one room with their parents; their waking hours are divided between school and the street; saloons are sometimes as numerous as one to every hundred adults; those on the verge of pauperism patronize them. Yet there is good order in these schools; the street urchins are trained to respond to right rule, affording ground for hope as to their future. At home they have no training; they need encouragement; they should be lifted up from their surroundings and gain a taste for better things. The difficulty is caused more frequently by poverty and shiftlessness at home than by neglect and vice, yet the latter have great influence. Compulsion in its ordinary form is practically useless in making such children regular in attendance at school. The parents are characterized by

improvidence, want of purpose, and no regard for the future of their children; as soon as their boy is through with school he is put on work which prepares him for nothing, and thus he drifts into casual employment, trusts to chance for a living, and gradually sinks. The poverty, misery, and vice of the next generation will to a large extent come from the slum children. Their need is education in habits of decency, cleanliness, self-respect, the rudiments of civilization and domestic life; their instruction should not be too abstract, nor technical in the sense of fitting them for competitive examinations, clerkships, or college; but rather for the workshop, factory, trades, or the home.

The Decentralisation Commission.

THE following are extracts from the evidence given by officials and non-officials, on matters relating to Education before the above Commission during its recent sittings in Madras:—

THE HON'BLE DR. A. G. BOURNE.

The Hon'ble Dr. A. G. Bourne, F.R.S., Director of Public Instruction, examined by the Chairman:—

The Indian Educational Service, recruited entirely in England, the Provincial Service recruited entirely in India and the Subordinate Service were under him. He had power to make appointments to the Provincial Service, subject to the approval of the Government. He corresponded directly with the Provincial Government through the Secretary in the Local and Municipal Department. He did not think there was any undue restriction placed on him by the Government.

Q.—Is there any specific power that you would like to see delegated to you which is now held by the Provincial Government, either financial or otherwise?

A.—What I most want is to be able to re-delegate any power delegated to me to some of my subordinates.

Q.—What power is it that you want re-delegated and to whom?

A.—I should give Inspectors of Schools very great control in their own Circles. It is an extremely complicated Department and I have not tabulated the powers I would like to be delegated to me.

Witness, continuing, said:—There were 23 officers in the Indian Educational Service. Seven of these were Inspectors of Schools and three were Inspectresses; nine were Principals or Professors of Arts Colleges and the rest occupied various posts in professional Colleges and special appointments like Deputy Director of Public Instruction.

Q.—Which of these 23 would you like to see have greater freedom?

A.—Inspectors of Schools on the one hand over their Circles and Principals of Colleges over their Colleges.

Q.—In what way do the Local Government unduly hamper you in your dealings with the Inspectors of Circles.

A.—I do not say that the Local Government hamper me at all. I should prefer to give Inspectors more powers.

Q.—You cannot give these powers because you say there are rules which adversely affect and insist on excessive control over Inspectors? A.—Yes.

Witness then detailed the various directions in which he would like to give larger delegation of powers to Inspectors. With regard to the organisation of diplomas and certificates, other than those specialised by the Educational Rules, witness thought that in many cases this power might be delegated to Inspectors of Schools. Witness had no personal knowledge of this matter nor had the Government, but it was the man on the spot who had. It was really a local educational rule that required the formality being gone through and the rule might, in the witness's opinion, be well relaxed. The next matter was with regard to the list of text-books. The Government of Madras in drawing up lists of text-books acted on the advice of the Text-Book Committee, of which witness was an *ex-officio* member. Government nominally decided what was to be a text-book, but witness could not remember any instance in which any book the inclusion of which witness had recommended had been excluded by Government. Then with regard to the levying of fees in Board Schools in backward localities, whenever witness made any recommendation it was always accepted. This might clash with the wishes of the Local Board, but witness was afraid that Local Boards had very few wishes as to education. The Inspecting Officer on the spot wrote to the Local Board direct, if it was a Board School, and they resolved to apply to Government. The application came to witness and it was sanctioned. The letter on the subject would pass through the witness to the Government. Practically every case which was recommended to Government by witness was accepted by them. He had no recollection of any recommendation of his in this matter being overruled by Government. With regard to the power to sanction grants for furniture, witness would like to see this extended from Rs. 200 to Rs. 500. This would save a little correspondence, not very much. In any case witness had at present to refer his views to Government when really he was the deciding authority.

Q.—Is there any general principle in connection with Education with regard to which you desire to have greater freedom?

A.—There are one or two small matters. One is the Store Department. We want for the College Department a number of stores. We want special things, not like drainage pipes or iron rails, and a great deal of delay is experienced in getting what is wanted. It was only possible to give annual indents, but Pro-

fessors had to wait for months till they get what they wanted, and when they got it they often found that they got the wrong thing. The latest suggestion was that there should be a branch of the Stores Department in Madras but he thought this would make matters only worse.

Q.—Is there any real genuine large question in which in any way your work as Director of Public Instruction is unduly hampered by the interference of the Provincial Government? A.—No.

Q.—Is there any other Department which unduly interferes with it?

A.—The whole Budget system interferes largely with our work. Generally the rules are so rigid. A Department like the Educational Department can not foresee so clearly what our needs are, especially what money we want for grants-in-aid. I should like to prevent lapses of money as most of my subordinates spend their money by the end of the financial year.

Witness continuing :—He would like that the Provincial Government should give him power to carry the total of the lapses over to the following year's estimates. He had power to re-appropriate allotments from one sub-head to another.

He was trying to reduce the number of Secondary schools managed by Local Boards, because he was anxious to devote more funds to Elementary education. The management of Secondary schools by Local Boards was merely nominal. The Local Boards took very little interest in schools beyond making grants.

Q.—Would it be better to give them greater control over their schools?

A.—No; my reason is that as a rule the *personnel* of the Board does not take any interest in their schools. Generally, only the President, who is a Civilian officer, when he goes on tour, inspects the schools and takes an interest in them. Municipal bodies manage a considerable number of Secondary schools, because these are in large towns. Their management is little better than that by the Local Boards. In some Municipalities they take a greater interest than in others. That interest is possibly slowly growing.

Q.—Would the extension of powers to them in matters educational stimulate their interest? A.—I can hardly see in what way.

Q.—If you give them greater power to deal with something or other in which they are interested, will they not take correspondingly a greater amount of interest?

A.—It may be; but it is always so doubtful. Teachers are often brought in because they are relatives of Municipal Councillors.

Q.—If we grant larger powers in educational matters to local bodies, and to that extent decentralise them, will that not be attended with happy results?

A.—I do not see that it would.

There was a large number of Aided schools under the management of Missionary bodies, who took great interest in education. They were also many such schools under native agencies. There was a great deal of correspondence in regard to the Elementary and Secondary schools between the Department and Municipalities and local bodies who controlled them. All the letters of those bodies passed through him to Government and he acted as a criticising post office. The correspondence generally related to such matters as the employment of an additional teacher, opening an additional class, altering the pay of a teacher, the purchase of a book, etc. Whenever he wanted any information in regard to these matters, he referred back to the Inspector of Schools.

Q.—Is there any method which you can suggest to us for shortening the correspondence which follows on the requirements of the Municipality being granted by the local Government? Would it not be possible to get the Inspector to correspond directly with the Government?

A.—He would eliminate the local management altogether because it was so nominal. There was a good deal more correspondence in regard to the Secondary schools than in regard to Elementary schools. The whole thing would be simpler if the Secondary schools were under the management of the Department.

Q.—Would it not be possible to give local bodies a real management?

A.—I do not think it would be for the benefit of the schools.

Q.—Don't you think that even if there should be a falling off in the standard of education, they should be allowed to have real power?

A.—I don't see the object of it. We are now constantly watching these Municipal schools. They would then deteriorate. He was against the present dual management of these schools. Unless that was done away with, and one or other of the two was made responsible for the management, he saw no means of shortening correspondence.

The Director-General of Education did not interfere with the powers of the Director. He generally called for statistics and nothing more. His impression in regard to the appointment of the Director-General was that it was good, in that, if there was an educational expert on the spot, Provincial Governments had a greater chance of getting educational schemes sanctioned and funds allotted for their schemes than if there was not such an expert. There was, however, one difficulty which he felt. It was this, that when a scheme had been discussed and decided upon and sent up to the Government of India, the whole thing was reopened from the educational point of view in the light of expert advice. This expert advice, in his opinion, would have been of great value had it come at an earlier stage, before the scheme was matured and sent up to the Government. He was in favour of an annual or triennial Conference of Provincial Directors of Public Instruction, to discuss matters of importance from a purely educational point of view. Witness was of opinion that in a matter like Education it was necessary

that there should be some co-ordination between the different Provinces and some control. Witness thought that there should be less control than there was at present. It was very difficult on the spur of the moment to give details as to matters on which he thought there should be control by the Central Government, but he could give some examples. With regard to the Provincial Educational Service, for instance, if the Local Government considered it necessary to have another Professor for the Presidency College they should have power to appoint one or two. That would be in the Indian Educational Service and would be an Home appointment and Government could now only ask for a man to be sent out. If the Local Government considered that it was better to spend their money in that way than in some other educational way, they should have the power to do so. The control of the revenue and expenditure of India was vested by Statute in the Secretary of State. Witness was of opinion that the control of the Secretary of State should be more general and less detailed than at present. There had been a good deal of educational reforms initiated within the last few years. Witness believed that these were due to the suggestions by local officers who attended the Educational Conference, itself due to the special initiative of Lord Curzon. Therefore they might be taken to have emanated from the Government of India. Witness thought the Local Government's dealing more directly with the officers on the spot were more in touch with local conditions and they were in a position to get more quickly advised on what was required. With regard to the Budget, there had been lapses every year but they were decreasing very much. If the controlling authority said that he was not to spend so much, then witness had nothing to say, but they did not say that. The Budget should be based on a little more than the probability of expenditure because if at the end of the year the witness found that he was right and the Government was wrong there would be difficulty in getting money. There was nothing to prevent him to go up to the Provincial Government and ask for more; but it was very nervous work going to them at the end of the year. Witness had always tried to estimate his expenditure as accurately as possible, excepting with regard to certain big schemes in respect to which administrative sanction was withheld. The educational allotments had been greatly increased by Government in recent years. Witness could not say whether the Government of India would have been likely to make such increased allotments if education had not been under their control. That would depend on how much interest they took in education. Witness would have thought that the Government of India would have made these increased allotments even if they had no voice in the management. Witness then gave details as to the number of Aided and Government Colleges in the Presidency and as to the extent to which Government aided Primary education. There was a certain amount of rivalry between the Christian College and the Presidency College. He did not think that the Presidency College picked out the Christian College as its special rival. There would possibly be objection on the part of the Christian

College authorities to have the text-book vested in the Director of Public Instruction instead of in the Local Government. Objection had been taken by certain Missionaries to the Director being substituted in the Code in other places on the ground that the Director was more directly related to Government Schools.

Examined by Sir S. Edgerley:—He would rather not have delegation of powers given to him subject to control by means of monthly returns. The annual return on Public Instruction ought to be sufficient. The system of grant-in-aid entailed an enormous amount of work.

Examined by Sir F. Lely:—Every separate item of expenditure, such as the purchase of a new book, etc., by a Municipality, had to go up to Government for sanction, though the Municipal Budget for the year had been sanctioned. Village schools were set up by private teachers with the help of village officials and were allowed to be run by the villages without departmental interference. The Inspecting Officer visited these schools and inspected them and on his report was determined the grant-in-aid. He believed that it would be possible to leave to the village communities the supervision and the building of school houses out of funds granted by the Government for the purpose.

There were two Training Colleges in the Presidency. Sometimes the Collector of the places visited these Colleges. But this depended more upon the man who was the Collector. If a Government Order was in existence that Collector^s should visit these Colleges, it had become obsolete. He would have no objection to a Collector's opinion as to the state of a College being forwarded to Government when he (witness) disagreed with that opinion. This would strengthen the position of the Collector and would encourage him to co-operate with the Educational Department.

Examined by Mr. R. C. Dutt:—He was in favour of the powers of prescribing text-books in schools, prohibiting the employment of teachers whose certificates had been withdrawn, and the appointment of members to the Text-book Committees, which now remained with the Government being delegated to him. His recommendations in these respects had always been adopted by the Government.

The Government contributed more money for the maintenance of Board Schools than the Boards themselves spent. It seemed to him the most rational thing that Elementary Schools should be handed over to the Boards and the Secondary Schools should be taken over by Department. If the Boards paid for the Inspectorial staff, he would allow the schools to be maintained and inspected by them. Because the Inspectorial staff were not paid by the Boards, he said that the Inspection should be in the hands of the Government staff.

His statement in regard to the relations of Municipal Councillors and teachers of Municipal Schools was based on hearsay, on complaints made by teachers or by departmental officers. There was one case in which he caused inquiries to be made, as a result of which, on his report to Government, the appointment was cancelled. Complaints of this description were only occasionally received, and he rarely took action on them.

Re-examined by the Chairman:—In asking for greater freedom from financial rules he assumed that the Directors would have a certain amount of money to deal with and that it was for them to decide how they would deal with it. He would be content if the Government of India would allot a sum of money, and having allotted it Directors should be free to spend it as they liked, and afterwards if they could show that the money had been well spent and that they could spend more the Government should be prepared to consider whether they could give more, without going into detail of the schemes on which the money was to be spent. Witness thought that the area of a Province, its population and the amount of revenue collected should be a consideration in deciding which Province deserved more and not the value of the scheme. The Directors of Public Instruction of various Provinces had a Conference recently, which was a great importance, but no points had actually cropped up that they had occasion to correspond about. When witness experienced any difficulty in solving educational problems he would write demi-officially to the Directors of other Provinces.

Mr. C. T. H. JOHNSON, I. C. S.,

Divisional Officer of Negapatam.

Examined by Mr. R. C. Dutt:—The practical working of the Taluq Board was done by other officers. It would be very much better if the Educational Department were made a Provincial Department and the Taluq Boards relieved from the control of schools. Local Boards at present were out of sympathy with what they believed to be the present policy of the Government of India. They believe the present policy to be to promote primary education and to decrease the number of Secondary schools. The Local Boards represented many of the educated land-owning classes who were not quite so much in favour of primary education being extended. They like to have Lower Secondary Schools hard by their doors and did not like the reduction of Secondary schools. The members of the Local Boards were not as a class representative of the people, but represented the educated land-owning class. Therefore they were opposed to what they believed to be the present policy of the Government of India. Things would work much more smoothly if educational work was made provincial and if the Educational Department took advice from the Taluq Boards. Individual members of Taluq Boards took practically no interest in primary education. As far as sympathy went, it would not be much use in placing Primary schools under the Taluq

Boards and Secondary schools under the Educational Department. According to his suggestion education would have to be removed as one of the purposes for which Boards had been created.

Examined by Sir F. Lely:—He would hand over the management of village schools in tried villages to the villagers themselves, only if some respectable man there made himself responsible for its efficient management. In regard to education, the Educational Department should be called on to consult the Revenue Department in the matter of the creation or the abolition or altering the status of schools. He proposed to abrogate the executive powers now exercised by officers of his department as Presidents of the Taluq Board in the matter of education and would have only consultative powers.

DEWAN BAHADUR GOVINDARAGHAVA IYER.

So far as educational institutions were concerned, they should be entirely under the control of the Municipalities, and the Municipalities should have a free hand.

MR. H. F. GILLMAN.

MR. H. F. GILLMAN, I. C. S., Collector of Madura:—As regards District Boards the Government exercised considerable control over them. He would give the Boards power to reappropriate allotments from one sub-head to another provided the total of the Budget was not exceeded. He was inclined to think that Local Boards might be left to themselves in the matter of Elementary and Primary Education and the Director of Public Instruction should not interfere in details except in matters of general policy. He did not think that the Government should take over control of the education within Local Board areas. Education would be better promoted under the Local Board system than under the departmental system. Lower Secondary Education should also be left to the Local Board; not High School Education.

MR. H. D. TAYLOR.

MR. H. D. TAYLOR, I. C. S., Secretary to Government in the Local and Municipal Educational Department, examined by the Chairman:—

By Mr. W. S. Meyer:—The control of Local Board schools should, in his opinion, continue to be under the Local Boards, if these bodies satisfied the requirements of the Educational rules and were subject to inspection by the Educational Department. Witness thought that the sphere of Local Boards should, as far as possible, be restricted to Elementary education. Primary schools for girls in the Presidency were until recently, under Government control, but now they were left to local bodies. Secondary schools for girls were still under Government control. He did not know whether the recent order of the Government of India that receipts and expenditures of local bodies should figure in Im-

perial Budgets was spontaneously issued or otherwise. In the annual administration reviews Government censured local bodies for not spending up to budget allotments of the year. This might tend to hurry expenditure at the end of the year. But it was necessary that the Government should see that roads and communications and education were maintained in an efficient state by the expenditure allotted for them in the Budget.

THE REV. DR. D. DOWNIE.

The Rev. Dr. D. DOWNIE, of the Nellore American Mission, submitted a statement of which the following is a summary:—

The new Education rules are no doubt intended and calculated to improve education. With the scheme for Elementary education I have no complaint to make, except that it puts too much power into the hands of the Inspectors. All that Government now promise in the way of ordinary grants-in-aid is one-half the excess expenditure over the fee income. It seems to me that the policy of the Government in regard to Secondary schools is to increase the restriction and decrease the aid. The effect will be to close up many private schools and restrict higher education to the well-to-do classes. If the Government are prepared to undertake the entire Primary and Secondary education of the country, I for one would have no objection. It would be in accord with what I regard as the best public school educational system in the world. In that case Government ought to allow Mission and other private schools to follow their own schemes and be permitted to send up candidates for Matriculation on their own merits, irrespective of where or how they were prepared. But I seriously question whether the people are able to bear the additional taxation that this additional burden would involve. In any case Mission schools will probably continue, but in view of the large amount of aid given to Government in its educational work by the Missions, it seems to me they deserve more generous treatment at the hands of Government.

If the partnership between the Government and private school manager is to be continued, I think there ought to be some sort of Advisory Council, composed of representatives of the Educational Department and a proportionate number of educational experts from representative educational institutions. Though its powers would only be advisory, it should be understood that the advice of such a body should be heeded, and not simply one to hear and approve what had already been determined upon.

THE HON'BLE MR. G. S. FORBES.

The Hon'ble Mr. G. S. FORBES, C. S. I., Second Member of the Executive Council:—

The creation of Directors-General and Inspectors-General, was more for the help of the Government. Those officers were wanted more as advisers

to the Government of India ; not so much for the Provinces. In his opinion it had been a mistake to call these officers Directors-General and Inspectors-General. The Director-General of Education did not direct in the true sense of the term, education in this or any other Province. He was really an adviser to the Government of India. If the term Director-General were avoided, probably there would be less objection to their appointments. It was really the fear that they might interfere with the local officers, that was the cause of their visits not being more readily welcomed by the local officers. The advice of the Inspector-General of Education had been very valuable to the Director of Public Instruction, with whom he had personal interviews.

The Government of Madras had in recent years delegated large powers to the Director of Public Instruction, to local and Municipal bodies, the Board of Revenue and the Collectors. The policy of delegation had been acted upon by the Local Government at different times. The Madras Government proposed to appoint a small Committee to consider the question of further delegation of powers, taking care at the same time that this did not lead to any undesirable results. The appointment of this Committee was in no way connected with the Commission.

A certain amount of interference by the department in the work of Municipalities was desirable, as in the case of education. It was only in that sphere that the Government intervened in the work of the Municipalities.

The Madras Educational Conference.

OPENING SESSION.

THE annual Educational Conference of the Madras Teachers' Guild, opened on Saturday the 21st December 1907, at the Y. M. C. A. auditorium, when there was a large attendance of teachers and others interested in education.

The Rev. J. Cooling, the President, after a few introductory remarks, requested His Lordship the Bishop of Madras to deliver the opening address.

His Lordship, who was received with cheers, spoke as follows:—

LADIES AND GENTLEMEN,—It is with very great pleasure that I accepted the kind invitation which your Secretary gave me to preside at your opening meeting to-day, because the subject of education is one in which I have always taken a very keen interest, as a greater part of my life has been spent as a member of the teaching profession. And no one can help feeling what an important part edu-

cationists have to play in the future development of India. As you know, gentlemen, you have been held responsible for great deal of the unrest of India that has taken place during the past year or so ; and perhaps it is one of the functions of the teaching profession in India to stir up, what has been called, a noble spirit of discontent ; that is perhaps the inevitable result of the spread of education. But certainly the work of the educationist is not limited to stirring up a spirit of discontent and producing a spirit of unrest. There are many forces that are at work now to produce great changes in India and to develop all these forces of Indian life and Indian character that have been, to a great extent, latent, in the past ; and, certainly, not the least important of these forces is the great teaching profession. And so in speaking to you this morning, I am speaking to those who have not merely, I hope, undertaken the work of teaching simply for the sake of earning a livelihood, but who are also aware of the very great, important and noble part they have to play in the history and development of their own country. At the same time, glad as I was to accept the invitation, I must confess that when I first received it I hesitated very much whether it would not be wiser for me to decline, partly for the reason that for the past eight years I have been unable to take any direct part in the work of education myself, and during these last eight or ten years certainly a great deal of water has flowed under the bridge in matters of education.

There has been a great development in the methods of teaching and the standard of education, both as regards the University and the general body of schools throughout the country, and so I felt that in speaking to you this morning I should be speaking as an old fossil and so one who has only had experience of an antiquated system and antiquated methods. And, then, another reason that made me hesitate, was the fact that I myself have never had the advantage, which most of you have had, of any regular and systematic training in the art of teaching. Like many young men from England, fresh from the University, I was pitchforked into the teaching profession and left to find out my own methods by my own experience and my own mistakes. I remember when I first went, immediately after taking my degree, to be a master at one of the largest and most important of our public schools in England, I was naturally anxious to gain any experience that I could and to find out from precedent what might be the most suitable methods of teaching. One day I called up a small boy, who seemed to be the most backward of his class and on whom it seemed impossible to make any impression, and I asked him what the master, who taught the class before me used to do with him. He said:—"He used to call me up and pull my ears." That was absolutely the only instruction in educational methods that I ever had in my life.

You can imagine that I feel this morning that my past training does not qualify me very much to address gentlemen who have had the advantage of a regular,

systematic and scientific training on the subject of education and educational methods. At the same time there are, I think, a few points on which any one who has a general acquaintance with education, especially with education in India, may be allowed to have an opinion and perhaps even to express it before an audience like this, without any very scientific training in educational methods and without any very great experience of recent developments in Indian education. We can, at any rate, all of us see generally what is the kind of ideal that we ought to hold up before us in Indian education; and it is important that a body like this should not only fix its attention, as it necessarily must in the main, upon particular details of the educational system and educational methods but should also from time to time look at the ideals that lie before it and the goal which education ought steadily to aim at in the future. Of course ideals are always open to the objection that they are not altogether practical; and I am well aware that the points which I will put before you this morning are not ideals that can immediately be realised; but it is, I think, a matter of importance that, if we have to work a defective system, a system which falls short of what we recognise to be the ideal, we should, at any rate, not regard the defects of the system as though they were virtues. There is always a great tendency to make a fetish of a system which is found to be the only one which is practicable under the circumstances, and then to lose sight of the fact that the system must not be worked out to its logical issues, at all costs and at all hazards; but must from time to time be modified and brought into harmony with what is recognised to be the higher ideal. The first point, which I will put before you is one on which I know there is some difference of opinion; but it is a point upon which I myself have always, for the last twenty-four years, since I have been acquainted with the Indian education, felt very strongly, and that is, that we ought steadily to aim at giving all education in India in the vernacular. I know perfectly well that at the present moment this is an unattainable ideal. It is inevitable that for the time being a great deal of the higher education should be given through the medium of English; but I do not think that we ought ever to acquiesce in the idea that the spread of English education and the giving of instruction through the medium of English is to be tolerated, as though it were an ideal in itself. It is one of the necessary evils which Indian education has to endure during a period of transition; but every one who has the higher interests of Indian education at heart, ought, I think, steadily to aim at making this period of transition as short as possible. There can be few of us who have not been struck by the extraordinary difference that there is in the effect and influence of education in a country like India and in another Eastern country, namely Japan, Indian education has reached a far higher level than education has reached as yet in Japan. It has been given for a longer time and, I think, by an abler body of men, but, at the same time, while education in Japan has entered into the very heart of the people, while the teaching given to the Japanese has been assimilated and been made their own, here in India, to a very large extent, it remains a mere

vaneer, a polish upon the surface. There are of course many different reasons that may be given as to why this is so; but I venture to think that one of the chief reasons is, that from the first, education in Japan has been given steadily through the medium of the vernacular of the country; whereas in India, higher education has been always given through the medium of English; and one inevitable result of that is that it is almost impossible to get the great mass of students in India, ever really to think for themselves about the subjects that they are taught. You know that one of the characteristic defects of the Indian mind, if I may venture to speak of it to an audience mainly composed of Indian gentlemen and educationists, is the tendency to get things by heart and not to think about them. I have a very vivid recollection of a hostel of Indian students in Calcutta in connection with the Oxford Mission. I used to go round the rooms of an evening while the students were preparing for the lectures on the next day; and there they sat upon their seats with legs tucked up under them in an attitude which appears to Englishmen extraordinarily uncomfortable. They swayed their bodies to and fro for a period of about four hours after dinner until they went to bed, poring over the pages of the book that lay before them, in a futile and pathetic effort, as it seemed to me, to get their lessons by heart. That is the method that is dear to the Indian student, and it is one which is largely fostered by the fact that in the pursuit of knowledge he has a crushing burden to bear in the effort to assimilate the knowledge given to him through the medium of a foreign language, I do not think that education will ever produce its full effect in India, that it will ever really enter into the very heart of the people, or that the teaching will ever be assimilated and made a national possession, until all education, from the highest to the lowest, is given through the medium of the vernaculars. I know the very great difficulty which exists. Here in the University, we have students of different languages, Tamil, Telugu, Canarese and Malayalam; and the problem at present is one of extraordinary complexity and difficulty; but at the same time, I think a Guild like this can do a great service by steadily upholding the principle that, wherever it is possible, education and teaching should be given, not through the medium of English but, through the medium of the vernaculars.

Let me give you one practical instance of the way in which the tendency is all in the other direction; that is, to enforce English as a medium of instruction, even where it is not necessary and where it is not wanted, as though the giving of instruction through the medium of English were an ideal to be aimed at and in itself the perfection of education. A few weeks ago I was at a Telugu town, which has not the brief but the euphonious name of Jammalamadugu. There, I found an excellent girls' school. It is not a girls' school of the Church of England, so I have no personal interest in it; but I simply take it as an illustration of the working of the system. It is a most excellent school where excellent education is given under the direction of two English ladies. For years past this school

has given all its teaching in the vernacular and it has received a grant of Rs. 900 a year and no English has been taught, and it is not desirable that English should be taught ; in the first place, because it is absolutely useless to the girls. They are going out into the Telugu villages, where they will never speak a word of English, and where they will have no need to speak English, so that it is a sheer waste of time to teach them English ; and a much stronger reason why they should not be taught English is that the men whom they may have to marry do not know English. Therefore, if you teach girls English and you do not teach boys English, you are only laying up a terrible source of domestic unhappiness for the future generation. In spite of these obvious facts, the Education Department is now insisting that English should be taught in that school or that the grant shall be reduced to Rs. 300 from Rs. 900, that is to say, that the school will be fined Rs. 600 a year unless it will consent to teach a subject, that is absolutely useless and a sheer waste of time, and which will produce domestic unhappiness and misery throughout the District. Of course it may be said :—"Yes, but we must go by the rules of the Department." But I would urge that if the rules of the Education Department clash with the true interests of education, it is the rules of the Department that should be set aside, and not the interests of education. The second point is that it is necessary that education in all its branches from the highest to the lowest should be kept in very close touch with the actual life of the people. We sometimes speak of the necessity of knowledge for its own sake. That is all very well for people who are going to be students in after-life. But when you come to the great mass of the people of this country, unless the system of education and the knowledge that is given is in very close touch with their actual life, it is sure to become pedantic, to be doctrinaire and to be useless ; and one great problem, not only in India but in every country throughout the world, is to bring the system of education, the subjects that are taught and the methods by which they are taught, into as close a touch as possible with the actual life of the people of the land ; because it is quite certain that the mass of the people will speedily forget any knowledge that they do not practically use in after-life. I was talking the other day about village education to one who was the oldest educationist in our Presidency, the Rev. F. N. Alexander who has been with his wife fifty years in the District of Ellore and whose jubilee I helped to celebrate the other day. He has had for years a large system of village schools all through the Ellore District. He remarked that it was always a matter of grief to him to see that of all the boys who passed through his village schools, a comparatively small proportion retained the knowledge which had been given them in after years. By the time they came to the age of twenty a very large proportion of them had even forgotten to write and read. One reason is because when they leave the school they are not called upon to use the knowledge which they received. And what is true of our village schools is true generally of the schools and Colleges throughout India. Unless the education is brought into the closest possible

relation with practical life, a great deal of the education given will be absolutely useless and absolutely wasted. There are, of course, very great difficulties in India in the way of bringing education into practical touch with the life of the people. And the first difficulty obviously is that the conditions of life vary so largely in different places and are so exceedingly complex. Life in Madras is a very different thing from life in Telugu villages ; and again the life of the villager in the Telugu country is not quite the same as his life in Tamil villages. Then, besides these differences between one District and another and between town and village, you have also differences between caste and caste ; it is not only these larger and broader differences that have to be taken into account ; the conditions of life in every single District require special study and special attention.

Let me give you an illustration from the sphere of industrial education, where perhaps the need for keeping it in close touch with the life of the people is even more strongly felt than it is in the purely literary branch of education. One great defect of our general system of industrial education throughout the country is that it is often carried on in towns where it is out of all relation to the life in villages. But even when you get people who are in touch with village life developing a system of industrial education, they will make mistakes, unless they begin by a careful study of the actual facts of village life around them. There was a gentleman in a village that I visited the other day who was very anxious to promote industrial education upon lines which he thought would be most useful to the people ; and so he set to work to improve the system of weaving, and endeavoured to introduce into the country the fly-shuttle instead of the old hand shuttle, which is now in use. It seemed obvious that as it would work at about four times the pace of the old hand shuttle, it would give a very great stimulus to the weaving industry throughout the District. And so he introduced it into his school at headquarters. And what was the result ? As soon as they began to work with the fly-shuttle it was found that they could not use the ordinary cotton produced in the country itself ; they were obliged to get the cotton from the Mills, which comes from abroad. If, therefore, the weavers of the District were to adopt the new shuttle, the result would be to upset the economic system of the District and do far more harm than good. That is only one small instance of the mistakes that may be made in Indian education, unless we start with a very careful study of the actual conditions of life of the people themselves. Another difficulty is that here in India education has to be worked in accordance with one centralised system. So long as education is dependent upon Government grants, it is inevitable that it should be directed by one Department which controls the education of the whole Presidency. And it is hard to see how a system of that kind can take account of the needs of the various districts and the different castes and classes with which they have to deal. And then there is a still further difficulty that in the main the people who have to direct this educational system cannot be in close touch with the life of the people throughout the Presidency. The system

as a whole, therefore, cannot be altered; but what, I think, a Guild like this could do is to try and keep up a steady pressure to induce the Government to take more into their confidence the large body of educationists scattered throughout the country who are engaged in the practical work of education and live among the people. One of the main reforms required, to begin with, is not so much the reform in education as the reform in the people who are responsible for the education, so as to secure far greater elasticity in the working of the rules of the Education Department and the utmost possible freedom for individual experiments. I will just give you one small illustration. It is a trivial point, but often a trivial point serves to illustrate a question in hand as well as a more important one. When I was travelling through a village in one of the Districts the other day, I noticed that a large number of our small Panchama schools in villages adopted forms for the boys to sit on. Now there is no possible reason why they should have forms. The boys cannot sit on forms and would tumble off if they tried to do so. But I was told the Rules of the Educational Department demand that there should be forms. The Inspector said that he would not give grants if there were no forms. "What do you do with them?" I asked, and I was told in reply "We keep them in the back rooms. Whenever the Inspector comes we put them all out and we put the children on them and tell them to keep very still. As soon as the Inspector goes away, the children are put on the floor and the forms are put in the back rooms till next year". If the Inspector had only condescended to consult the Missionary in charge or any of the other people who practically knew the conditions of village life, he would have soon found out that forms were not only a useless expense, but a positive danger in a small Panchama school.

There is just one other point that I would like to touch upon and that is the need for higher moral training. It is a very trite subject; it is one that is being constantly talked about and constantly spoken of. And I think we must all feel that it is true, as has often been said, that the lack of moral training is one of the characteristic defects of our system of Indian education. Gentlemen, I know the very great difficulties that exist in our Indian schools in the way of giving moral teaching, because it is always more difficult where you have a system of day schools and where you have a system of boarding schools. In a day school it is much more difficult for the teacher to make his personality felt. But there are one or two things that could be done. In the first place I think the teachers in our schools could make a much more determined effort to come into close, friendly personal relations with students out of school and College hours: and then in the second place it is of great importance that the teachers by the very method of their teaching should always keep before their pupils a high ideal of absolute truthfulness in intellectual matters. It is not only a question of telling the pupil about the abstract duty of telling the truth, but it is the way in which the teacher teaches and deals with intellectual subjects that makes most impression upon the

minds of the students. In India, as elsewhere, while truthfulness and honesty are not the whole of morality, still they form the great basis upon which the moral character has to be built. And no society can ever be strong and prosperous unless it is first based upon that confidence between man and man which springs from individual truthfulness and honesty. Now that spirit of truthfulness and honesty to a very large extent depends upon the way in which the teachers in our schools and Colleges deal with the subjects which they have to teach. I remember a Principal of one of our largest and most important Colleges in Calcutta telling me that he once heard a Professor giving a lecture on philosophy. He began by putting forward one particular view as one which he held himself: he went on for a little time and then proceeded to develop precisely the opposite view, which he delivered with equal conviction and apparently no sense of incongruity. The natural impression left on the minds of the students was that it did not in the slightest degree matter which was true and which was false. There is, I am afraid, a great deal of that in Indian education, as though all views and all opinions were equally true to the teacher, equally false to the examiner, and equally useful to the student. Remember, then, that when you are dealing with the education of the young it is of the utmost importance for you, even in small and apparently trifling matters, the question of a date or the correctness and accuracy of a fact, to put before them a high ideal of truthfulness and accuracy, and inculcate by example a strict regard for intellectual honesty, and it is in this way that the teaching profession as a body can do a great deal to lay those stable foundations of character upon which ultimately a new and a higher social order can be built.

Now, gentlemen, I have kept you much longer than I intended. I have said more perhaps than I meant to say at first. I thank you very much for having patiently listened to me. Let me in conclusion express my great sympathy with the work in which you are engaged, and express the wish that in the work in which you are engaged you will find the same happiness that I derived from it myself.

The Rev. J. LAZARUS proposed a vote of thanks to His Lordship the Bishop.

The Rev. J. COOLING then read a paper on the history of the Guild, describing its origin, its progress and its work.

The afternoon session presided over by Mr. A. Mayhew, M. A., was devoted to the reading of four papers on the desirability of constituting sections of the Guild with a view to improve methods of teaching. There was a short discussion after which the morning session terminated.

THE TEACHING OF ENGLISH.

In the unavoidable absence of Mr. J. A. Yates, the Chairman read that gentleman's paper on improved methods of teaching English.

In the course of his paper Mr. Yates observed that all essays should be excluded from the Guild's term's work and that oratory should be kept within bounds. To do this, definite problems of teaching that occur in the daily work might with advantage be taken for discussion; the time limit to a teacher's eloquence should be strictly enforced and a strong Chairman, who knew what was meant by irrelevance ought to be maintained. Habitual word-mongers should be repressed, and men of fewer words but of more thought should be encouraged. Discussion would be most valuable when following a lesson, which ought to be given by a man who had made some point in English teaching his own. Another line of work would be the preparation of schemes of work and syllabuses, which ought to be cyclostyled and distributed among the members of the section, ample time being given for consideration before the discussion. He then dwelt at length on what to discuss, what to teach in model lessons, what to work up in syllabuses and upon what (on occasions only) to write essays and lecture. Speaking on this subject, Mr. Yates observed that the matter of the sounds of English was very important. He was of opinion that lectures might from time to time be given by competent persons. Teachers should learn phonetic symbols and know the value in sounds of the symbols used. In conclusion, he laid stress on the questions of correct stress, of correct intonation, and of correct grouping. The Guild, he suggested, might set aside a certain sum for the purchase of books, in particular foreign books on reformed lines. The Guild might also start a local branch of the International Phonetic Association and so put teachers into touch with men of other countries and dispel the feeling of isolation that, if not believed in, at any rate seemed to actuate conduct in teaching. He felt that representations of the Guild on matters of teaching would carry more weight if there was a consciousness of a solidarity of knowledge and a continuous endeavour on its part to represent that body of teachers who zealously strive for the best in teaching.

THE TEACHING OF MATHEMATICS.

The next paper, on Mathematics, was read by Mr. B. Hanumantha Rao, B. A. After referring to the existing system of teaching Mathematics, he observed that the present unsatisfactory condition regarding the knowledge of Mathematics possessed by pupils was due to indiscriminate promotions of boys to classes for which they were not fit. What was most needful was moral courage on the part of Headmasters to say nay to pupils who clamoured for promotion when they did not deserve it. The speaker then proceeded to suggest certain improvements to bring about a better state of affairs. He said that an attempt should be made not to promote pupils who failed to secure 20 per cent. of the marks in Mathematics. The University Regulations prescribed 35 per cent. for a pass in the Matriculation Examination, but he would prefer a low minimum to no minimum. Every student should be required to have a set of Mathematical instruments, a pen-knife, a sheet of squared paper for building curves, etc., a parallel ruler, a

piece of rubber, a narrow strip of paper, etc. A Mathematical Club should be formed in every large town of all interested in Mathematics, to whatever class they might belong, and a monthly or a fortnightly meeting for a couple of hours should be allowed, at which there should be a free discussion, to have doubts and difficulties cleared up. Teachers should preside over such meetings and should suggest interesting problems for solution, and small prizes might be offered for a correct solution of those problems. Every High School library should be supplied with the latest books on Mathematics. A museum which would naturally grow up in course of class work might include models either purchased or made by pupils, drawings, busts and portraits of mathematicians. It was desirable that the Mathematics section of the Guild should start a journal on Mathematics and also arrange for a course of lectures on Mathematics by one or two Professors during the Educational Conference held every year.

A SCIENCE SECTION.

Mr. M. Subrahmanyam, B. A., L. T., read a paper on the desirability of constituting a Science Section of the Guild. He said that the environments in which a science teacher worked were more or less discouraging. A teacher of science was poorly paid, his indents for apparatus were not sanctioned, nor was he given any period of relaxation from class work, the time-table assigning to him the same number of hours of work as was allotted to the teachers of other subjects. The final examinations which were controlled by the University were guided by a rigid syllabus and tested theoretical knowledge of the students, offering very little encouragement to practical knowledge. The aim of science teaching should be to teach the use of facts, but not mere facts, and teachers of science should understand the true spirit of scientific methods. The Education Department and the University should so modify their regulations and examinations as to encourage original research and practical work among students, and to appreciate the work of those teachers who fostered a spirit of enquiry. If the Teachers' Guild formed a Science Section, there would be a division of labour, and efficiency in the teaching of the subject would be promoted. The Section should be so organised as to enable men of science to influence public opinion and then the University and the Educational Department would yield, and modify the scheme wherever it might be found necessary. The Section should hold meetings once a month, when essays might be read and discussion conducted, and such essays should deal with proper methods of teaching science, giving the practical experience of the essayists in the teaching of the subject; and the important lectures should be printed and sold at cheap prices. A monthly magazine might with advantage be published by the Section. The first requisite was a good library of books, selected with care, and arrangements should be made to send such books to Mofussil members. A vacation lecture system should be adopted at which demonstration lessons might also be given, the very best men being invited to conduct such course of lectures.

HISTORY AND GEOGRAPHY.

The last paper read was by Mr. K. A. Veeraraghavacharry, B. A., L. T., on History and Geography. He said that India was far behind other countries in the matter of teaching History and Geography. The chief industries of foreign countries was a sealed book to many Indian students. An English boy was taught the geographical condition of the commercial world, with maps and attractive diagrams. Another complaint was that Indian history was not taught with any purpose. The Indian student knew nothing about the village system of administration. There was a new party in this country who called themselves "Nationalists", whom nobody could view without feelings of alarm, and the influence of the intoxicating spirit of this new party was now to be found in the secondary schools. It was an open secret that even before the advent of the new party the situation was unsatisfactory, and at present that situation was rendered far more serious. The students were now fast getting out of control, the old reverence for and loyalty to constituted authority was going out of fashion. A teacher of History could appeal to a student better than a demagogue in the street, and History if properly taught would never fail to train the powers of thought, manliness and self-reliance and to develop a spirit of reverence to constituted authority. The contact between India and England was providential. The educational exhibitions also showed that here and there there were found scattered teachers who were determined to do their work in right earnest. Libraries were being largely added to, and museums started to preserve good collections, and the present was the time for bringing forward an organisation to add many more to the number. The Teachers' Guild had the advantage of being able to do good work in the directions indicated by him, located as it was in the metropolis. The first and primary object of the section should be to create a body of experts in History and Geography teaching, and the Guild must afford facilities for wide reading. The Reports of the Royal Geographical Society and the Annual Report of Scientific Advice in India might be subscribed for and sent out in circulation. Museums of maps might be started and lists of text books might be prepared. The feeling was very common that the new curriculum was overcrowded and that, in addition to better quality, more quantity was also demanded from students. The matter required looking into, and any opinion on the matter from a representative body like the Teachers' Guild would carry weight. Another suggestion of the speaker was that the Guild might hold its conference in different parts of the Presidency.

THE DISCUSSION.

A discussion on the four papers as a whole then took place, and the first speaker was Mr. Panchapakesa Iyer.

He was of opinion that the Guild as it was now constituted, consisting of a few members, could not be expected to do all that was suggested in the papers

read. The Government should come forward to help them munificently in the matter of the improvements suggested. If money was not forthcoming, none of the suggestions could be carried out. Several teachers were not paid their salaries at the end of every month, and arrangements could not be made, for want of sufficient funds, to allot the subjects to several teachers separately. If the ideas suggested in the papers should take shape, it was necessary that the Teachers' Guild, which now consisted of teachers of High Schools, should be augmented by Professors, who were also teachers. In the present gathering there were not many Professors.

MR. A. S. VYDIANADHA IYER, the next speaker, observed that if the right sort of men could be got for carrying out the suggestions made at the Conference, money would be forthcoming. The chief thing required was that they should feel a new sense of responsibility on account of the spirit of reform now in the air. He believed that it was very necessary that if the various sections were formed, a great deal of work should be done by the sections, and if that work was to be preserved and made useful for those who might not be present at the meetings, it was absolutely necessary to have an organ.

MR. SWAMINADHA IYER was opposed to the organisation of different sections of the Guild. From the trend of the papers read, he was inclined to think that the sections, if formed, would be fossilised into expert Committees. In his opinion, the humble work of a High School master was simply to prepare material for the College Professor. There was a danger of the sections becoming isolated. Another difficulty was that the Guild as at present constituted could not get a sufficient number of men for their meetings, and if the meetings of the Guild had to be adjourned for want of a quorum, he did not know what would be the fate of similar gatherings of so-called departments.

MR. LAKSHMANA IYER was of opinion that an attempt might with advantage be made to associate together teachers of special subjects in the manner suggested in the papers.

MR. T. RAMANADA IYER said that in the city of Madras there were not sufficient meetings between teachers. There were difficulties occurring and doubts arising, but there was no facility or opportunity for persons in various localities feeling the same, doubts coming together for mutual advice and guidance. He thought that the High School teachers of the city of Madras, from the advantage of their position, ought to associate with one another more than they did at present. Some of the mofussil Teachers' Associations were, he thought, doing better work in that direction. It was for want of opportunity of meeting among the teachers in Madras that they were not able to do anything. After hearing the papers read at the Conference he was strongly impressed with the advantage of maintaining sections of work. In Geography, each teacher had a method, and under the present method the teachers were not able to arrive at a common standard or mode of teaching.

Mr. K. B. RAMANATHA IYER, M.A., L.T., who was the last speaker contributing to the discussion, said that as regarded the desirability of constituting sections of the Guild there was no difference of opinion. The question for discussion was only as to feasibility. A question was raised by one who took a great deal of interest in the work of the Guild, whether, if the Guild, which was by itself a small body, was subdivided into smaller bodies, there would be a quorum for its meetings. He sympathised with the gentleman who saw this difficulty. They had had uncomplimentary references made to the work of the Guild. He believed, much as they might talk of what a European Professor might do for them or what a high-placed official might do for them, the work of improving teaching in all directions must rest with the teachers themselves, and if they were not able to get together and show they were ready to avail themselves of all the improvements brought to their doors, there was no use of complaining of high-placed men not stretching out hands of help to them. They must learn to come together, and he believed, if two average teachers should come together and talk about what they did, they would think of things which would be very valuable to themselves. It might be they had not received much inspiration from any high-placed official. When those people were condescending enough to come to them, they must show they were willing to learn and were in earnest, and that they believed in the profession of teaching. They should have something like a pride in the profession. It was the absence of that feeling of pride that stood in the way of their coming together as they ought to, even when they were members of the Guild. It must be made feasible to form the suggested sections, even with the present strength of the Guild, if they would make the teaching profession respected.

THE CHAIRMAN'S SPEECH.

The Chairman, before closing the session for the day, made a speech, in the course of which he said that the views of those who were in favour of the formation of sections of the Guild for improving the various subjects of the curriculum were so forcibly put before them that they were in any case convinced of the desirability of forming those sections. They had been fortunate in having had the four papers read to them by gentlemen who might truly be described as enthusiasts in the four subjects which they had represented. He hoped that the papers would be reproduced in some form, whether printed or cyclostyled, and that it might be possible to form at least one section next year, and that in course of time more sections might be added. It seemed to him that by taking that step they would enlist the support of a large number of enthusiastic teachers who were at present holding aloof from the Guild. Those teachers now occasionally came to cheer them, but they did not take much part in the work of the Guild. He knew a large number of enthusiasts who would, he believed, assist them if they saw that the Guild was determined to take one subject at a time systematic-

ally and try to make definite progress in that subject by systematic steps. Besides taking up the general work of the Guild, they would be glad to help in improving the subject in which they professed to give instruction. It was a question of the formation of more or less expert committees, to get more work done in a particular subject and get a better quality of the work, to get information and to distribute information.

There was information wanted all over the country and they came across people who could use information if they had it. It was, therefore, the getting and giving of information that should be one of the main works of each of the sections proposed to be constituted. In addition to that, there was scope for free criticism of such schemes as would be brought up and elucidation of any problems which it might be decided to take up during the year. The Chairman then proceeded to summarise the various suggestions made in the four papers read to the Conference. He referred to one other advantage of these sections, and that was that the sections, if formed, would attract more useful members. He saw no reason why the work of the sections should not be transacted by means of correspondence, and the circulation of periodicals, etc. The Guild should allot a certain amount of money to each section which should have liberty to spend it submitting a report of its work at the end of each year. The financial difficulty was a very real difficulty, but if the Guild was made more popular by the formation of various sections, funds would become available for attempting one such section during the coming year. The formation of a library was always an expensive matter, but the expense of correspondence and occasional printing of papers, which would form the bulk of the section work during the earlier stage, might be met from increased subscription by those taking more interest in the work. He believed that if the teachers got interested in the work of a particular section, they would manage, especially during the magnificent holidays they enjoyed to devote a certain amount of time to the improvement of that section. Mainly, it was a question of enthusiasm, of energy, perseverance and good will.

As a member of the Guild and as a member of the Council of the Guild, he was glad to be present at the Conference, and he thought it was important that in all places and at all times it must be emphasised that the Educational Department would co-operate with those engaged in the work of teaching in all matters. He looked forward to the time when those who were engaged in the administrative part of the work would be able to get information regarding the latest methods of teaching in this country, regarding what was the view of the best teachers of this country on any particular subject from the sections which, he hoped, would arise out of the present meeting. What was wanted most was some body of teachers which was thoroughly representative of all that was best in the teaching profession, and they wanted a thoroughly representative body of teachers divided up in sections, according to their particular interests and their particular abilities.

Some day, he felt sure, those sections would be properly constituted, and he hoped that the meeting held this year would be fruitful in those results.

Mr. K. B. Ramanatha Iyer moved a vote of thanks to the Chairman, and the Conference rose for the day.

Mr. P. Lakshmi Narasu presided at the second day's morning Session.

Mr. A. T. Ramanuja Chariar read a paper on the relation of the Teachers Guild (1) to the Government Educational Department and (2) to the various Teachers' Associations of the Presidency. In concluding his paper he said :—On the whole, my aim in this paper has been to show that the Department should take the Guild more into its confidence and thus improve its status and increase its efficiency, influence and capacity for good work ; that the Guild in its turn should deserve such confidence by steady and earnest work and by the sanity of its views ; that the immediate energy of the Guild must be directed towards the organisation of all those that take part in educational work into a comprehensive brotherhood, by trying to remove those absurd and artificial barriers that go to divide the profession into so many mutually exclusive sections ; that this work can best be done by similar organisations scattered over the country, all brought under the influence and moral control of the Guild by easy and advantageous rules of affiliation, and that as the tree is judged by the fruit the usefulness of the Guild must be determined by the results of its work—in the creation of a healthy public opinion which will recognise the dignity and importance of the profession and the honours and advantages that must be extended to its members.

The Chairman observed that most of the suggestions made by Mr. Ramanuja Chariar in his paper had been tried by the Guild, but without success. The Guild had not unfortunately been of much help to the teachers. He did not know whether this was the fault of the Guild or the fault of the teachers.

Mr. Panchapakasa Iyer pointed out that the small attendance at that morning's Session showed that teachers did not take an intelligent interest in the work of the Guild and did not exhibit an intelligent sympathy towards it. He thought that the fact that the Guild had not been able to do much for the teachers was due more to the fault of the teachers than of the Guild. The most sacred duty which the Guild should perform was to take practical steps to make teachers realise that an advantage was gained by teachers from the Guild. The teachers could only realise that that advantage was gained if their status was raised.

Mr. T. V. Swaminadha Iyer, in speaking of the relations between the Educational Department and the Guild, said that it might be summed up as one of indifference and contempt, if not of actual cleavage. Bills might be passed, Commissions might be appointed, syllabuses might be framed, and yet the Teachers' Guild might not have any official recognition for an expression of its opinion.

There was a natural anxiety on their part to look up to the Educational Department. They could not too highly thank the Lord Bishop, who really got to the root of the problem when he stated that a certain amount of confidence should be reposed in teachers and in the Guild by the Educational Department. Not only were teachers not being taken into confidence, but they were also being suspected of sedition. If teachers were not taken into confidence by the Government, they might work for their wages, but real work would not be done.

Mr. K. B. Ramanathan, while thanking Mr. Ramanuja Chariar for his paper and for the many suggestions which he had made for improving the activities of the Guild, said that in many respects the Guild had been anticipating Mr. Ramanuja Chariar's suggestion. For instance, in the matter of a central hall for the Guild, a site had been applied for in the People's Park, but the Corporation could not see its way to grant it, as it was required for its own purposes, and had asked the Guild to suggest some other site. Ever since the Guild had been puzzling itself over the matter. The speaker then pointed out various other directions in which the Guild had been doing good work.

THE GUILD AS AN EMPLOYMENT BUREAU.

Mr. K. T. Paul, who was put down to read a paper on the above subject, not being present, his task had to be undertaken by Mr. K. B. Ramanathan, who, for want of time, was only able to give the main reasons why the Employment Bureau of the Guild had not been able to do its work as well as it might have done. The employment bureau of the Guild was a very important concern. Many in the profession looked forward to securing places of benefit and profit and better paying appointments than they held, by applying to the Guild. There had been some 70 applications from time to time to the Guild for employment and most of the applicants had been successful. But the Guild had for many reasons not been able to get all the men to apply through its agency and was not able to make the work of this particular department as important as the members wished to make it. There were also other difficulties. They could not expect the Government Department to apply to the Guild, nor were the Missionary bodies eager to consult the Guild in the matter of appointments, so that they had to fall back upon merely private agency, and these did not always come to the Guild to obtain what they wanted.

Mr. W. M. Theobald was of opinion that the reason why the Employment Bureau of the Guild did not succeed was that they were taking the wrong road. In England there was no difficulty whatever in securing a teacher. All that they had to do there was to refer to the Teachers' organ, the *Schoolmaster*. Until the bureau of the Guild changed its route it would not succeed.

The Chairman, in bringing the session to a close, said that in his opinion teachers would not succeed until they formed themselves into a strong Union.

They had not been able to see how this result could be brought about and how the Guild could be converted into a regular Union, because there were so many interests clashing with each other. At the very inception of the Guild Dr. Miller had warned the members that he feared the Guild might turn out to be a danger in the future for this reason. In these days people were more afraid of persons who were capable of doing mischief than of those who were capable of doing good. Therefore, unless they turned out to be a body which would prove dangerous, they would not be successful.

This closed the morning Session.

The afternoon Session was continued at 2.30 P.M. with the Rev. D. G. M. Leith, M.A., in the Chair.

The only subject on the agenda for this session was a paper on "Teachers' Associations," with special reference to the National Union of Teachers of England and Wales, by Mr. W. M. Theobald, of Coimbatore.

Mr. Theobald made a lengthy speech, in the course of which he said that at the end of 1906 the National Union of Teachers in England stood as the representative of 60,938 teachers. The organisation of the Union was as follows:—There was an executive, to which were affiliated the Local and County Associations in every corner of England and Wales. Another fundamental part of the organisation was that there should be an annual Conference, at which every Association might be and most likely would be represented by one or more delegates. The executive was made up of the President—and the man who claimed and won that honour felt that he had one of the highest honours conferred upon him—the Vice-President and the Treasurer. There were thirty-three other leading teachers from different parts of England elected to serve on the Executive Board, and the fight to gain that honoured position was a keen one. Voting papers were sent by post on a certain day, and they were counted up, and at the annual Conference the members were announced. It was one of the exciting meetings of the Conference when those thirty-three leaders of the Union were declared to be elected members for the coming year. Those who formed the executive had only power to act during the year, and they had to present a report at the end of the year to the delegates who were representatives of the whole Union. If a line of action had been taken during a year by the members of the executive which did not please the Union, those men would stand very little chance of being elected again, and there might be a vote of censure passed. If, however, their line of action had been pleasing, the same gentlemen, as a rule, were elected year after year and were looked upon as leaders of thought in the educational world of that District. The meetings of the executive were held in London. It was one of the rules that the members, if they gave their time were not expected to give their money, and therefore the travelling expenses of the members and hotel expenses were paid by the Union. The speaker then proceeded

to explain the constitution of the District Associations and their work. Referring again to the work of the National Union, Mr. Theobald observed that at the annual Conference at Oxford last Easter, there were 2,400 delegates present. The Union was recognised as the greatest Union of educationists in England, and had made great strides. At first there were 400 members, and in thirty-seven years that number had risen steadily to 60,938. There were other activities of the Union to which Mr. Theobald next referred. The Union had not only an educational side, but a sympathetic side also. There was what was called a B. and O. Fund—Benevolent and Orphan Fund—which generally came to the rescue of teachers who deserved help from the fund. In one year the Union spent over £60,000 in helping those who had fallen by the way, and in the opinion of the speaker the National Union justified its existence by this work, even if it did nothing else. Then there was what was called a Provident Fund. It was not well for teachers to depend on charity. There was a sick fund, and in addition to these there was a quarter of a million sterling invested in life insurances. The Provident Fund and the B. and O. Fund were the bright gems in the crown of the great Union.

If he was asked to say what work the Union had done he would reply that it would be easier to say what it had not done. In the first place the Union got an amended Educational Code. They held up to ridicule the absurd way in which the public money was spent to spoil education. Members of Parliament had been interviewed, and there was a changed code. That was not all. The teachers said they were public servants, and that when their career was over they had done useful service for the State and should, therefore, be provided with pensions. The result was they had a pension scheme. They did not hold a Conference once a year and pass a pious resolution and send it on to the Director. They stormed the House of Commons and the House of Lords. He could mention by name teachers who lived in the lobby of the House of Commons, day after day, week after week, and year after year, discussing with the Members of Parliament the hardships the teachers had to undergo and the rights that they claimed. The result of that storming was that to-day the superannuation scheme had won its seven years' trial. An organisation like the Union was a splendid asset to the teachers of any country. He wished with all his heart that the Madras Presidency had a strong Union of its teachers. They needed it now more than ever before. The question was should they continue without any power in the educational matters of this Presidency, for as a matter of fact the teachers and managers had little or no power in the education of this great Presidency. There was no use going away from that meeting and saying that they would think the matter out till next year. Now was the time or never. He believed that the Teachers' Guild had to end or to mend. There were two absolutely necessary qualifications to start a strong Union; they should have enthusiasts and there

should be money. If every teacher in the Presidency would pay Rs. 2 or Rs. 3 every year, there would be a large sum available. The Conference should appoint four or five enthusiasts to set to work, and let every other concern be put aside. One gentleman said from that platform that morning that their interests were divided; but there was a common interest they could all meet on. He might be divided from another teacher in a hundred ways, but he would shake hands with him on one educational platform. He believed that the differences that divided the teachers at Home were as strong and as numerous as the interests that divided teachers in this country. They must put on one side everything that would divide and on the other everything that would unite them on one common platform for the education of the children of the Madras Presidency.

If they could pick out five enthusiastic gentlemen for the work they might then raise donations for initial expenses, say up to Rs. 1,000. They could not get a Union for nothing. Having raised the necessary sum the five members selected should meet and draw out a plan of the Presidency, appointing one or more of their number to visit educational centres. In six months they might form twenty Associations. When these twenty Associations were formed, he would have the first Conference, and each Association might be asked to send two or three delegates to form a working executive for twelve months or six months. The Conference might then draw up preliminary rules and lay down a basis, and when the Madras Teachers' Guild met next year they would see a meeting worthy of the teachers of the Presidency. If the District Associations would pick the best men among them and send them to the Conference to represent their interests, paying their whole expenses from the funds of the Association, they would soon find that teachers would flock to Madras. His advice was that this Conference should appoint now five enthusiasts with *carte blanche* for six months to stir up the Madras Presidency at the expense of the Conference, and at the end of six months they should call together delegates for the first Union of teachers of this Presidency.

The CHAIRMAN then invited discussion on the suggestions of Mr. Theobald. Messrs. Panchapakesa Iyer, T. Ramanadha Iyer, S. Rajagopalachari and T. A. Swaminada Iyer all approved of the suggestions and commended them to the conference for adoption.

Mr. K. B. RAMANATHA IYER pointed out that there were one or two difficulties in forming a Union. The first difficulty was there was a class of teachers who had to depend upon Government for their prospects of promotion or betterment of their situation, and he was not sanguine of getting support from that class of teachers in the work of the Union. There might be men among them who interested themselves in the profession as a whole and who were willing to help them—there might be sympathy with the Union, but there would not be a large support from the class as a whole. Another difficulty was about the practical

politics of the educational profession as a whole. It occurred to him that the they protested in the earlier stages against Government enacting that teachers should not take part in politics, much depended upon the interpretation of notification, and if they went on agitating in that matter, they might make position of managers of schools uncomfortable, and it was possible that Government notification might be so interpreted as to keep away from the organisation a large body of men who might be otherwise useful. He believed there were the practical difficulties. He also believed at the same time that the Missionary bodies could be counted upon to extend their support to the organisation because they had been with them in all matters of helping the profession as a whole. With regard to private managers, he believed they were suspicious of anything like an assertion of independence on the part of their staff and they would like to have a submissive staff. The organisation helped the profession as a whole to assert their independence, and they could not, therefore, expect very much sympathy from the private managers. The wiser among the body of teachers might keep aloof. It might be they would attribute to him a spirit of cynicism, but it occurred to him that those were some of the practical difficulties and he would like to have some explanation about them.

Mr. THEOBALD observed that there were difficulties, but nobody should suppose that they could form a Union that would become strong without paying price for it. When he said they wanted enthusiasts, he meant they wanted men who would be prepared not only to pay two annas a week, but perhaps go through a certain amount of disrepute. There were stages where suffering seemed to be necessary. The National Union of Teachers in England had passed through such stages. If they united on an educational platform, he did not think that members of Government would do anything but honour the teachers who were self-respecting and had banded themselves together for a noble cause. There would be some men who would stand aside, and he would only say let them stand aside, but let them not stop the others.

On the motion of the Rev. J. Cooling, the following Resolution was adopted by the Conference:—

"That this Conference generally approves of the scheme as set forth by Mr. Theobald, and commends it to the Council of the Madras Teachers' Guild and asks the Council to immediately associate with itself other gentlemen in different parts of the Presidency and to appoint five gentlemen to go to different educational centres for the purpose of forming a Union of Teachers."

The next Resolution adopted by the Conference was that a subscription list be opened now and money for the purpose be now received or promised and that afterwards the Secretaries of the Madras Teachers' Guild be empowered to collect subscriptions for the purpose. Rs. 239 was subscribed on the spot.

CONCLUDING PROCEEDINGS.

The last Resolution passed by the Conference was that the Teachers' Guild be requested to give immediate effect to the suggestions contained in the papers delivered on the afternoon of the 20th December, on the desirability of constituting sections of the Guild, with a view to improve methods of teaching English, Mathematics, Science and History and Geography.

The Rev. J. COOLING proposed a vote of thanks to Mr. Theobald for the valuable suggestions he had made for forming a Teachers' Union.

The CHAIRMAN said that they might congratulate themselves on the closing portion of the Conference this year. He felt sure that if that enthusiasm could by some miracle be continued they should be able to do some good work in the way of forming Teachers' Associations. He believed that the formation of a Teachers' Union would open a new epoch in the history of the Guild, which would be of great helpfulness to the teachers of Southern India.

The Conference was then dissolved.

Reform of Wayward Youth in the United States.

ARTHUR MACDONALD, *Washington.*

HERE is apprehension that the excellent equipment of modern reformatories and industrial schools, such as electric lights, bath room, most improved methods of heating, free medical service, free dentistry, excellent teaching, lectures, entertainments, the best of food, many comforts the poor would call luxuries, solid buildings, elegant situation, fine scenery, superb cottages, approximating to a refined country home, that the providing of these and many other advantages for the young who have gone wrong, may take away that wholesome fear of jail or prison, which doubtless keeps many a youth from committing crime; that all such comforts should be provided by the State for its enemies, may make the idea of crime much less abhorrent and thereby tend to increase it among the young.

Let it be admitted that such treatment of wayward youth does sometimes lessen the wholesome fear of prison. It may be remarked that allowing the young to be arrested and remain in jail a few days will lessen such fear much more and have a damaging effect upon the youth for ever after, if not preparing him for a criminal career.

But the State allows children born in unhealthy surroundings, to remain in them, and until they break the law, they are not considered subjects for reform. The State should give the young a chance and the industrial school and reformatory with all their elaborate equipment are for this purpose.

EVERY CHILD HAS THE RIGHT TO A PROPER BRINGING UP.

Every child has the right to a proper bringing up. If it have no parents or its parents cannot give it the rearing it has a right to, the community or State should do it. If its parents are unfit or unable or indifferent as to its welfare, the child is certainly not to blame and the State should see that it has a chance in the struggle for existence. Such a child at best will have enough disadvantage, when helped by the State, as compared with the child who has good parents. The fact that some parents would be encouraged to neglect their children if the State undertook to see that children are properly cared for, is no reason why the children should suffer. Parents who care so little for their children as to practically give them up, are parents whom the children might as well be without. That there are many children in any community who have improper homes is a fact too well known. Almost any policeman can tell you of parents with whom it is detrimental for the children to live. As those children are to be future citizens, it is incumbent upon the State to see that they have at least a chance to become good citizens.

RESULTS OF EXPERIENCE.

The general modern principles and methods of reforming the young can be indicated in no better way than by giving the results and ideas of those who have had extensive experience in dealing *first hand* with such problems. Some of the truths here stated may seem very simple, but their importance is none the less on this account. The unanimity of opinion among those engaged in reformatory work is striking when the diversity and complexity of youthful natures is considered. The writer has taken his material from the reports of some of the leading reformatories in the United States, often using the words of those reports. Naturally there is some repetition, especially as to the need of a good home, but this only emphasizes the great importance of parental care which, the reformatory endeavours to supply the unfortunate young.

THE INDUSTRIAL SCHOOL.

The Industrial School is not a prison, nor is it a penal institution where erring boys are confined and cruel punishment meted out to them. People conceive this idea because it is connected with the Courts. Neither is it a place of confinement where they put bad boys merely to keep them out of other people's way.

The Industrial School is a charitable institution, educational in its general organization, for the mental, moral, and physical training of that unfortunate class of wayward, misguided boys, who by the very nature of their environment, are either homeless, with no visible means of support, or have in some manner transgressed the laws.

It is not our aim to take issue with that class of theorists who insist that a boy, who perhaps all his life has been surrounded by bad associates, running wild in the streets with no restraining hand to retard his downward course, whose social conditions have not been the best, and who has in some manner infringed on the law, is a criminal of the wilful kind, and as such should receive the scathing ban of society's ostracism.

A FEW BOYS SEEM DETERMINED TO GO WRONG.

True, it is, there are boys, and ever will be, who will not escape the penitentiary despite all the advice, precept and good training you may shower on them. This class, however, comprises a very small percentage of the whole, when we consider the large number of the decent, respectable, law-abiding young men who graduate from Industrial Schools and who have taken their place alongside the busy workers of the world—proving themselves good citizens, making an honest living and leading exemplary lives.

The so-called bad boy is not half so bad as his reputation. The greatest fault with him, he is misunderstood, because he has been neglected; gradually developed from bad to worse until at last he is in the clutch of the law. Then it is he is given up for lost, and oftentimes thrown in jail with vile, vicious, unlawful men who delight to further aid his downward course.

Boys who are not criminals, but the victim of circumstances, who have broken the law, between the ages of eight and sixteen should never be placed in jail on a common basis with common prisoners. They should not be punished but educated. Experience proves that they quickly respond to kind treatment and homelike influence. It is to this end the Industrial School was established.

THE INDUSTRIAL SCHOOL A HOME.

In all respects the Industrial School aims to be a father and mother to the unfortunates, supplanting as near as possible the good home left behind; and improving on those that are not what they should be. To many, it is the best home they have ever known. It is so different from the street; so much nicer to be able to know where you are going to sleep—so many nice games, a large number of books, and a whole lot of boys to play with; all of whom seem to be doing the right thing.

The school aims to make it as easy as possible for the boy to do the right thing; and while we must confess all boys do not possess fine natures, yet we realize that aims are best attained, not by hard uncompromising lines of rigidity, or simply by excluding them from bad associates, but by good moral examples, patient study of the individual, constant regularity in habits of eating, sleeping, exercise, play and a lively personal interest manifested among his teachers and officers in his sports, troubles, studies, etc.

HOW TO TREAT A BOY.

Place confidence in the boy; give him justice; wake the smoldering ambition that is dormant in him; do not treat him as a sneak or inferior, teach him to look up, not down; direct his attention where he will find the best, purest and most noble things in life; encourage in him clean manly sports; persuade him to do right for right's sake and not for the sake of policy; let him understand judgment is gift, sure and certain to him who disregards the law, and he who will not obey must be made to do so. Teach him neatness, cleanliness, and correctness. Give him to understand that he is to be educated, not punished, and that he will be received into the business world according to his ability to accomplish things. In fact let him understand everything he undertakes should be done in the nicest possible manner and that it is absolutely necessary he do his best. Try to instil in his very being a love and respect for honest labor, patience, perseverance, consideration for other people's property and opinions; impressing on him the importance not to back down when he meets a reverse.

METHODS SIMPLE.

Methods of keeping the boys are simple. We work no methods of legerdemain to convert the self-willed boy of the street, who perhaps has been a menace to society, an enemy to himself, and a danger to the public

in general into a quiet, peaceful, even-tempered, smooth "willy-willy" boy with a strong desire to obey each rule to the letter and a burning passion to execute every command in a faultless manner. Boys, as a rule, are not made that way—it is not natural—and as a class they have not an over amount of respect for watery sympathy—they want something more stable—it is facts audacious that count with them. They are quick to discern any movement that is for their welfare, and are, if approached in the right manner, nearly always capable and willing to leave their past life behind and take up the task of character-building.

Of course boys sometimes run away just as they leave some of the best, most congenial homes in the land to wander from door to door—veritable outcasts begging their daily bread; but the class who are placed on their honor, and then run away, are not the real representative body and the chances are they will be ne'er-do-wells all their lives, though it must not be concluded because a boy runs away we lose all hope in him, for oftentimes they turn out well.

UNHEALTHY HOMES.

We often receive boys who are from homes that were not the best, homes that were broken, unlawful, unnatural; their social connections all their lives have been the worst possible; they would not have the remotest idea of manners or refinement—almost wholly uncivilized—having known nothing but kicks and cuffs, and only been taught vice, dishonesty, and distrust in humanity in general, and has a natural consequence regarded the law as an enemy. Their only church was the corner saloon, or the dark alley, where they spent their time smoking, gambling, or conspiring to confiscate other people's property to themselves, and as for the word "obey" they never knew its meaning. Yet some conservative people often ask us to reform this class of boys, who from almost infancy have never felt a firm restraining hand, but have assayed to follow their own wills and proceed along lines that offered the least resistance, often encouraged by those who should have been a shield and a guide to their young lives.

Again we receive boys, whom some are pleased to term bad boys, from homes that are modest, congenial and lovely, whose parents are good, respectable, law-abiding citizens, yet it is plainly true their boys do not always conduct themselves as they should. We might suggest in some cases parents do not understand their children; are not patient enough; or because of household duties or pressing business, there is a lack of parental attention, or

years of over indulgence have taught the boy he can do as he pleased and they nearly always please to do wrong.

BOYS DESIRE ATTENTION.

Boys like people to take an interest in them and they like to take an interest in things. They want to be noticed, encouraged, and if they cannot find their boyhood at home, the chances are they seek for it on the streets, and once they get the habit of loafing, the end is not far off. They are thirsty for sympathy, love good clean companionship, and a lively interest taken in their boyish desires, games, etc., and it generally proves that the boy is alright.

It must be understood that the work is principally to build from the bottom up. It is necessarily slow, for we often encounter that class whose will has been their only law; they do not always readily take to the right way of thinking, neither do they always quickly respond to kind treatment; are often unappreciative, and inattentive to their duties, and while we are a strong advocate of moral suasion, we know with a certain class of boys, in fact all classes, if moral suasion fails and you do not use more strenuous means of correction, you certainly encourage them to travel further on the road to destruction and in the end they may be irretrievably lost.

THE BOY'S ENTREE.

In all institutions there is a beginning for every ward. He enters with all sorts of ideas concerning it. Some approach it in fear and trembling, some with complacency, some with gladness, and others with defiance or even arrogance; but all soon approximate a common level in sum total, by observation. They may lack education, refinement and moral training, but their perceptive faculties are usually bright. A boy can tell at a glance what kind of a man he has to deal with, and his first impression is generally a right one. In consequence of this precocity, he is soon enabled to adjust matters to his own satisfaction concerning his surroundings. Or if an older boy, sullen rebellious, looking for trouble, who enters the institution finds himself in a quiet, busy and well ordered community, every member of which seems to be behaving himself. One of his first experiences is introduction into the military organization where he gets physical exercise of a kind and quantity to dispose of all his superfluous energy, and, as a rule, speedily comes to realize that he is a very small part of a very large machine, and that it requires a bold man, when a thousand others are marching a certain way, to attempt to go in a different direction. This gets him into a proper frame of mind

for undertaking his other work, and in most cases, after a few attempts at independence, he submits to going along with the current, and there is no trouble whatever with him from a disciplinary point of view.

DISCIPLINE.

All children are not alike bad, therefore all do not need the same re-training influences. Some only need the timely caution, some the stern rebuke, while others will never know your meaning or appreciate their own situation until you apply the most severe punishment. These are all necessary appliances in child-training, but care should be exercised in their administration. The line must be drawn on the side of leniency, and justice must balance the scales, or you will antagonize. In no case ought a child to be corrected in the heat of impatience or the flush of anger, but in all well-governed schools there should be a proper time for the rendering of accounts, and then only to such persons as are capable--a man with a mother's heart and sympathies, combined with an offended father's dignity, one who can act coolly and quietly and appreciate the fact that what is done in haste is usually repented at leisure.

EDUCATION.

Education does not make the man; it adorns him, and should bring all his faculties into their fullest use. It is development, and is surpassed in grandeur only by manliness. A man may be an educated nobody. He is in his proper sphere a triple combination made up of moral, intellectual and animal capacities. Where he is lacking in any of these, cultivation becomes a necessity, and education resolves itself into a complex machine accelerating and retarding are basis of its operations. It is a mistake to educate the head at the expense of the heart and hand. The teachings of the school, the workshop, the garden, the farm and the heart, attuned to all that is good, noble and true, is education. These distinctions ought to be brought before the child in simplicity, and when he is in a condition to receive them. "An occasional dropping is better than a rainy day for a tender plant."

The children should be taught that the smiles of nature are not constant; that we must accept of sunshine and shower, dark days and weary nights; that the friends of to-day may become the enemies of to-morrow; and that we must be ever prepared to meet adversity on the moral plane.

DIVERSION.

Diversion is the wonderful word, the teacher's panacea and the boy's scapegoat. Those who have laboured with children will agree that there are

times when everything seems to go wrong with them. We may coax, and we may punish, and all to no effect; an incompetent teacher is in a dilemma, but one with tact will observe readily that the children are nervous from application or some other cause, and will immediately employ a little diversion. After a good laugh, the telling of a story, or the singing of a song, all will at once settle down to work, perfectly satisfied, and never know how the change came about.

To play is the delight of every boy, to a greater or lesser extent; certain limits, however, should govern them, even in amusement. All should be considered, whether in school, at work or at play, with the same spirit manifest; no cheating, no false representations, no subterfuge should be tolerated. It is just as necessary to use vigilance and discretion during their pastime as when otherwise engaged.

EMPLOYMENT.

All children should be considered capable of learning. What they have not naturally they can obtain mechanically, but all are not alike adepts in any pursuit. It is questionable whether a child knows what he can do best, therefore persons managing them ought to be good judges of human nature, and thus will be enabled to solve the problem of life in its active sphere of labor for them. All should learn some handicraft whereby to support themselves and those who may hereafter be dependent upon them. Should a boy exhibit traits of character pointing toward any of the professions, or any particular line of merchandising, it is no burden to carry with him the knowledge of a good, substantial trade, for, should everything else fail, he will turn to it as his capital in store, and by it raise himself with dignity and independence.

THE LIBRARY.

The library is essential, and the more it is used the less trouble we shall find in the performance of our arduous duties. Some children will devour the contents of a book in such a manner that it does them but little good. We desire that they will take time for thought and digestion of the matter and subject. Others do not have a desire to read at all, consequently we must read for them. Children's books should be children's reading; each stage in life has its tastes in literature, and we must not expect to put "an old head on young shoulders." Reading matter of a trashy nature should always be excluded from the young, especially the blood-and-thunder line of novel.

MUSIC.

Music is an incentive, and breathes the spirit of a better life. It is elevating and conducive of great power over the affections of the heart. Children love to sing, and the good old songs and hymns learned in childhood will follow to old age. In one reformatory the band plays six times a day when the boys march to and from their meals. The refining influence of music is here utilized.

THE MANNER OF DISCIPLINE.

All children are liable to error, but there should be proper discrimination between the moral and conventional wrong-doing. Our manner of disposing of such matters is to keep a record of every important wrong a child may from day to day commit. This report is submitted by the officers and teachers of the school to the Superintendent, in writing, without exaggeration or diminution, at which time he holds a moral review, calling up each child separately to make answer to the charges preferred against him. This is a time for care and forethought for earnest consideration, and the full exercise of all the knowledge at our command. There must be no haste, no harshness, and while we should be lenient, yet the wrong must not be forgotten. This is the time to make impressions, pointing the child to the consequences for the present and for future manhood.

We do not desire to hold a child longer than is necessary for his good. As soon as he becomes established in well-doing and has sufficient education to enable him to transact business, he should return to his home, or some home.

Should he not prove strong enough to do well among his old associates, the parents or guardians have the right to send him back to the school, where, in disgrace, he must make another start. This is a wise provision, and holds a restraint over the boy, even in our absence, until he becomes a man. In the case of a child who has no home, we are to him father, mother and friend, whether he is with us or not.

THE CHILD WITH NO CHANCE.

Often born in dissolution and poverty, the child first sees the light where dirt and squalor reign; he grows up amid these surroundings; his play ground is the street or alley, or equally as bad; his companions are those who are equally unfortunate; he has but little if any home life, the parents concerned only in the struggle of existence and frequently engaged in vicious employment, are not able to give him more than an occasional

thought, and when they do it is rather to serve their own selfish purpose than to benefit the child. Just as soon as he is large enough he is put to work to earn something to help the family, and now he comes in contact with an older, and usually a rougher class than himself. The chances are that he has not been permitted to attend school, or if so, has played the truant, and so has neither the training nor education with which to begin life on arriving at the period of adolescence. At this time in life he frequently runs away, or is obliged to leave home and shift for himself; and left largely to his own devices with ill-defined ideas of right and wrong with but little if any educational advantages, and but little or no moral or religious training, he finds it difficult on account of his defective training to obtain the means of living, and soon violates the law, and thus naturally gravitates to the industrial school, reformatory or prison.

POWER OF HABIT.

Enforced regular habits, and systematic physical exercise enable almost every inmate to leave the school sounder and stronger than when he entered. Long continued military drill makes order, neatness and respect for law and authority, habitual. It may be said that these things affect only the physical and mental sides of their nature, and what they need is moral improvement. It is true that at the start the average boy, earnestly applies himself to these things without any love for them, and for the reason that he is told that only by making a certain record of proficiency in them can he be released, but in the doing, there comes in time a development of that indescribable something which we call character, and everything is, now, looked upon from a different and better point of view. He then acquires the power of persistent and concentrated effort, changes his aims and ambitions, and becomes receptive to the more direct moral influence of the school. Through these and similar instrumentalities the object of the institution, reformation, is accomplished with reference to the majority of the inmates.

MILITARY DRILL.

Military drill develops the attention as well as the muscles. Perfunctory movements cannot be tolerated. In the manual of arms one is required not only to perform a certain muscular act, but to do it at the same time, and conform to the inch in final position with from 60 to 600 others. The hesitation of one cadet would result in delay and inconvenience to all. Disobedience in rank, therefore, becomes unpopular, and the habit of obedience is formed and strengthened by the daily and hourly repetition suggested by the very word "drill."

The drill is planned not so much to perfect the cadets in exhibition movements as to develop in them the qualities which mark good soldiers in active service; obedience, order and faithfulness in the performance of duty.

VALUE OF A GOOD HOME.

A great many citizens do not seem to appreciate how much good, wholesome home training does for a boy in the way of keeping him out of trouble while he is passing through those years from ten to eighteen when he is neither child nor man, is easily impressed, quick to follow the leader, to be good or bad, and if for any reason his home life does not restrain or entertain him he is quite apt to drift and get into trouble though he may be at heart the kind of a boy who would make a good man under favourable conditions. It is an easy step for a boy who does not have just the right environment to get into the habit of running away from school and unless there is an interest taken by the parents and an understanding between teacher and parent as to just what the pupil needs in the way of encouragement to help him over the hard places he is apt to follow the course that offers the least resistance and take up the habits of the street gamin and the tough boy whom he meets on the street. There is a tendency on the part of every boy during the years when character is being formed to imitate or follow the boy who dares to do things out of the ordinary from throwing paper wads in a school to smoking cigarettes in the basement, a sort of hero worship of the wrong type and unless strong lines are thrown out he is apt to lose his bearing and become a law-breaker. His offence may be anything from running away from school, stealing junk, robbery, or in fact anything in the whole category of crime. He has taken on many bad habits in his journey so far. He has in many instances little respect for law or order, has not a clear idea of property rights, has not been taught that he is only entitled to those things that he has earned or accrued honestly and has no conscientious scruples about taking what does not belong to him.

This does not apply to all boys. A good many have had good home training but in some instances are victims of broken families or intemperance and for one reason or another, are off the track.

REFORMATORY A BUSINESS ECONOMY.

Turning a wilful, wayward boy, often more sinned against than sinning, from his evil courses and making a useful, law-abiding, taxpaying citizen of him, is, leaving the humanity of it entirely out of consideration, the wisest sort of business economy measured by dollars and cents.

To take a friendless boy, secure a position for him and make him *permanently* self-supporting and self-respecting (on the basis of 209 boys) has cost per capita, 75. 21. Of this cost the boy himself contributes *one-third*. This is what a certain institution adds as a note.

The Reform School does not, nor does it claim to, reform all the boys who come into its keeping. Good parents, with whom no institution however wisely managed, can compare, do not always succeed in raising to manhood sons who do them honor. Boys go astray in the world in many ways and for many causes. Some have no parents and run at large subject to numberless temptations. Others have parents whose precepts and examples harm instead of help them. In the cases of others the parents have not the time nor the means, perhaps lack of inclination, to give them that constant supervision they require. They cease to go to school. Idleness takes the place of industry. Desire out-running their means of gratifying them they take what they are too idle to earn and lack the self-restraint to deny themselves. Very soon such boys, exempt from the wholesome restraint of watchful discipline, become curses to themselves and to their communities.

REFORMATORY DISCIPLINE.

Upon the arrival of such a boy at the reformatory the daily routine of his life is changed. He is under strict discipline all the time. He is well fed and well clothed, has a comfortable place to sleep, has his hours of recreation, and his nurse when he is sick. But he must go to school. He must work a portion of each day at some useful occupation, during the course of which he will learn one or more trades by which he may earn his living after he leaves the school. He is in a school the rules of which are more numerous and exact than in the laws of the State. His breaking of these rules is surer of detection and is followed by penalties swifter and more certain than those imposed for the breaking of the laws of the State. His privileges in the school and his release from it in "honor" depends upon his cheerful yielding to wholesome discipline, upon his industry in the school or at whatever work to which he has been assigned, upon his treatment of his associates and obedience to those in authority over him, upon his truthfulness and trustworthiness, his honesty and manly qualities generally. When he has thoroughly reformed and yields to the rules that obedience for lack of which to the laws of the State he was sent to the school, he is prepared to return to his home, if he has one, and it is a proper one, or a proper one can be procured for him.

MORAL TRAINING AND EDUCATION.

The training that must be relied upon to bring about the change in character does not differ from the training that develops character and ability in the case of the normal individual. No industrial school or reformatory possesses copyright methods of moral training. It endeavours only to supply those things that the boy has failed to receive in his earlier training. Among the very common neglects of his early life is that of school attendance. To make up for this, the boy is placed in school.

Many agencies are operating to drag children down. Homes broken by death, divorce, and desertion; parents utterly unfit for parenthood; step-fathers and step-mothers who have no love for their unfortunate step-children; evil companionship, poverty, and other forces are busily recruiting ranks for the delinquent class who must be cared for in this school. The one great universal defect is *moral weakness*. There is some mental, some physical delinquency, but every boy sent us is weak morally. He has little or no conscience. A man without a moral conscience is a bad citizen. The delinquent boy was never trained to feel the sinfulness of wrong-doing. His only concern is not to get caught. He fully agrees with the boy who said, "A lie is a very present help in time of trouble." With their disposition to profanity, untruthfulness, and larceny, inherited from several generations, we have a stupendous task set us to so teach, train, influence, direct and reform them in the short space of time that they may go forth and develop into good men. We can report seventy-five per cent. doing well—some better than others—but the majority making a manly effort to keep their parole agreements. Some of these will probably lapse, and others not doing well will probably improve. Most of the boys going out really want to live a better life. They promise to keep out of evil ways, and are honest in their promises, but many are too weak morally to stand out against the temptations of life.

The social side of the boy's life is carefully looked after. This is done not only with a view of keeping his interest alive, but of making him overcome any diffidence he may have about meeting people. When the boy feels that he can do something he is more encouraged to mingle among people, and is thus able to gain friendship for himself.

CAUSES OF JUVENILE DELINQUENCY.

Boys are born with certain physical characteristics. These characteristics persist with the utmost tenacity. It is equally true that boys are born

with certain intellectual aptitudes. These likewise are persistent but capable of improvement; yet it is true that the lack of certain mental activities may never be overcome, however skilled the training. As it is with the physical and the intellectual, so it is with the moral. The lack of certain moral sensibilities is as inherent, fundamental and persistent as either physical or mental characteristics. As the moral qualities are more elusive so the change through moral training becomes more difficult and results less apparent. This, however, is the problem of the industrial school or reformatory. Into this institution are placed the most hopeless cases to be found in the population of the State; those that society, the church, the schools and the courts have failed to save. The industrial school must do what all these forces have failed to do or it has done nothing. The terrific force of inherited tendency to crime, the blight influence of vicious homes and vicious companions, must all be met and conquered by the training and education of the industrial school. Every boy that is received within its doors is the resultant of the two great forces of heredity and environment. If the former predominates, the task of reclaiming, though not a hopeless one, is one of extreme difficulty—in fact, is not certain of having been accomplished so long as healthy activity remains—for relapses may occur under great temptation, even after years of successful resistance.

The increasing extent of juvenile depravity is one of the startling facts that the published data of modern investigation reveal. The vicious criminal and immoral lives led by some boys emphasize the fact that familiarity with crime and association with criminals make the street rather than the home and school and church the teacher of youth. The influence of vicious and improvident homes, where boys of tender years are allowed to come in contact with crime in its most revolting aspect, is an important factor in placing where it belongs the responsibility for a large portion of juvenile delinquency. The law cannot be depended upon to regulate these things. With a strange persistency it continues to deal with the offence instead of the offender, although it is for the good of the latter that the laws are made.

PAROLE FROM INSTITUTIONS.

It is morally certain that a boy or man who can or will not earn his release or parole from reformatory institutions by obedience to their just and easy rules, when he is exempt from the perplexities and uncertainties and inequalities and injustices of the world, will not obey those laws which the world at large establishes at its rule for its security. Since the boy's

reform is only partially effected when paroled, and since the one and only purpose of schools is to accomplish the boy's reform, it is easy to appreciate the importance of careful and faithful supervision of the boy while on parole. As much depends on the kind of a home he is to have, it is necessary to make an investigation of the home previous to his going to it. Statistics show that the great majority of our boys come from poor homes—homes of poverty and moral neglect; homes where death, divorce and desertion have robbed the children of everything that is supposed to make home sweet. About thirty per cent. of boys are entirely homeless, while many others would be better off were they homeless also. In respect to the home, there are three classes of boys: first, those who have fairly good homes; second, those who have no homes; third, those who have wretched homes. The problem is to deal with the latter. Boys who have good homes can return there. Boys who have no homes can be homed with good people; but those of the wretched homes clamor to go back, and the misguided parent pleads to have them, while to send them back is but to have them returned in a short time.

THE CRITICAL TIME.

The critical time is when the inmate leaves the institution to begin life in the world. Boys over 15, with new cravings and development of social interests are much less likely to be contented with farm life than younger children. It is necessary to follow up, advise, assist and restrain boys and girls on parole. With none to advise and encourage them they may become discouraged and fall.

Some boys on leaving are lost track of at once. Some of these are the best, some are the worst. The best may be ashamed to have it known that they were ever in the custody of the courts and would rather have their name changed than to have it known that they were ever in a reform school. But the great majority are willing to have the truth known. In many schools it is claimed that seventy per cent. are reformed and thirty per cent. go down. Thirty per cent. is a small number, when it is remembered that there are charges against everyone sent to an institution.

SOME RELEASED TOO SOON.

There is a feeling among those in charge of reformatories that some of the inmates are released too soon, although their time is up, have not been moulded sufficiently to withstand temptation. The Superintendent of a reformatory should be allowed to decide such cases. No person no matter at what age, should be allowed freedom, unless there be reasonable probability that he will not be dangerous to life, property or public peace.

Every inmate leaving a reformatory should be made to feel and understand that he has left a home, to which he can always return, should temptation prove too much for him in life's struggle.

Some boys sent to the school reach the age when they must be released under the law, before the work of reformation sought to be secured, and greatly to be desired, has been accomplished in their cases; and the boy committed to the Reform School, who has not attained his "honor", should not be released, but be sent to the Reformatory on an indeterminate sentence to remain there until, under the rules of that institution, he has earned by his good conduct his release, or having proven by his bad conduct that he is irreclaimable, he be sent to Prison.

THE GIRLS' INDUSTRIAL SCHOOL.

The Industrial School for Girls is not a house of correction, but is designed as a refuge for girls between the ages of six and twenty-one years, who, by force of circumstances or associations, are in manifest danger of becoming outcasts of society. It is not a place of punishment to which its inmates are sent as criminals—but a home for the friendless, neglected and vagrant children where, under the genial influences of kind treatment and physical and moral training, they may be won back to ways of virtue and respectability, and fitted for positions of honorable self-support and lives of usefulness.

Girls committed to the school become wards of the State. By the act of committing fathers and mothers lose their parental rights and responsibilities and the board of trustees, with the principal matrons, assistant matrons and teachers, in behalf of the State become as parents to the children. In one institution there had been received one thousand and thirty girls, all coming under the head of delinquents, and of all colors, conditions, and nationalities.

Many of the girls were not naturally vicious, but have been either led into wrong doing by those older and of stronger mind, or have been forced into it by home conditions. The homes that most of our girls come from, and the kind of parents they have, could not well bring about other conditions. Sometimes it is the ignorance of parents, sometimes the avarice, and often the viciousness brought about by drunkenness which is a potent factor.

MOST GIRLS READILY RESPOND TO GOOD TREATMENT.

Girls respond physically, mentally and morally, to the orderly life of the school. As they are at an impressionable age and free from distraction, they are easily let to accept their duties in the industrial and book schools. This work becomes a pleasurable outlet for their energies. To many of them, on arrival, cleanliness is a stranger, and it is not easy to reconcile them to the rules in this respect. In the matter of classification, about one in ten passes to the lowest grade, and only a half dozen of these are persistently recalcitrant. Upon the whole, they are more amenable to lighter forms of discipline than older girls. Although the impulse to run away overcomes them more readily than older girls, it is, nevertheless, true that they hold less fixedly in mind the idea of getting their freedom and show a contentedness with their daily life after the period of quarantine is over.

The habits of the younger girls are not so fixed as in older girls. They are more amenable to lighter forms of discipline than older girls; more curious, hence, more easily interested and pleased; they talk less of getting their freedom; they are more active and less ready to settle down to steady habits of work; they are all backward in school; they are able to concentrate attention for only a short period of time; few know how to dust, sweep, wash, cook or sew; they must be taught the common decencies of life.

METHODS OF REFORMATION OF GIRLS.

The aim is to develop healthy, bodily and mental activities. There is little of repression. The effort is to hold in check, and, if possible, to eliminate, vicious tendencies by fostering a healthy development of the physical and mental and moral life. The means to this end may be described under the following three divisions:

(a) *Physical culture.*—A careful examination of each girl is made by a competent physician soon after her arrival. Calisthenics and gymnastic exercises suited to her years and bodily condition are prescribed by the instructor in physical culture and practised in a well-equipped gymnasium.

(b) *Educational work.*—The object of the educational work is to arouse interest and to develop skill in all that pertains to the management of an ordinary household and to give the best common school education.

(c) *Moral instruction.*—The moral instruction is enforced by practice and example rather than by precept. The officers and teachers are all

selected with reference to their personal qualifications and influence upon the girls of the every day life of the institution. Girls, upon admission, are kept apart from the other inmates until their characters and habits are ascertained, and are then placed in one cottage or another according to their characteristics. Corporal punishment is prohibited. For disciplinary purposes resort is had to withdrawal of some privilege or opportunity which would be prized. In the rare instances in which anything further is required there is seclusion in well-lighted isolated rooms under medical observation, with light but nutritious diet and regular outdoor exercise.

There is hope for the girl with an uncontrolled temper, habits of petty thieving and sexual weakness. Such a girl will have upsets, but she needs some one to sympathise with her and guide her. She is not troubled with inertia. The typical profligate is contented and soft.

Some girls, like their parents, are so crude and ignorant and have so low a standard of life, that if they can be made morally decent and able to earn a living, little more can be expected.

When institution girls are sent out, they feel more responsible to strangers than to their parents or relatives at home; they are often sent to strangers first, before returned to the freedom of their own home where they may not feel obliged to do their best.

It is the belief of many that a girl should be in an institution at least three years, but that she should be given repeated trials. For long seclusion does not fit her for the outside world, correction cannot be consummated in an institution where the life is necessarily one of rule and routine and where personal responsibility is necessarily very limited.

SUGGESTIONS TO EMPLOYERS OF GIRLS ON PAROLE.

While these suggestions are special, many would be useful in general.

1. Do not expect the girl to know how to do all kinds of work. She needs teaching and in this you must be patient and give her encouragement.

2. She should be taught neatness in everything, and to keep all rooms in perfect order and under no circumstances be permitted to have her own room untidy or in confusion. She should also be taught to keep her own clothes in perfect order, clean and whole.

3. She must be respectful and ladylike in her bearing and language, and no one about the house should use improper language in her presence.

4. It is expected that she will attend church when convenient. Great care should be taken as to her associates, and she must not go out evenings except in company with some member of the family, or with some friend in whom you have the utmost confidence.

5. Do not seek to draw from her information as to her past life, and never refer to her disparagingly concerning that life, if you have occasion to chide or reprove her.

6. While you should give her your confidence and let her feel that you trust her, yet do not throw temptations in her way.

7. Do not try to impress upon her mind that she must be watched everywhere that she goes, but at all times let her feel by your example and advice that she cannot by any conduct, afford to court criticism, or let the faintest suspicion of wrong arise.

8. She is to have the privilege of unrestricted correspondence with the officers of the home. The employer is not expected to read her letters. Every letter she writes must be sent to the home. If she receives any letters which have not been sent to the home they must be forwarded at once without breaking the seal, to the home visitor.

9. That portion of her wages that you are to pay her must be paid weekly in cash, the reserve fund, as per contract, to be remitted to the home monthly.

10. In case of sickness, if it is serious, please notify the Superintendent and see that she does not suffer for lack of medical attendance.

11. In case of male inmates in the family, let due care be observed as to sleeping apartments, so that her room may not be accessible without your knowledge. This is the most important feature in all your duties relative to a proper care of the girl entrusted to you.

12. Study the girl's disposition, and we recommend that while you are firm in your discipline, you at the same time show a motherly interest in the girl's welfare that shall win her confidence.

Educational Conference at Sankaranainarkoil.

For the first time in the annals of the Sankaranainarkoil Taluk a well-attended Educational Conference was held with Mr. L. C. Williams Pillai, B.A., Inspector of Schools, IV Circle, as the President, at 1 P.M., on the 25th of

November. Mr. K. R. Duraisami Aiyar, B.A., Assistant Inspector of Schools Tinnevely Division, about 125 managers and teachers, several supervisors of schools, and some of the leading gentlemen of the place were also present.

Seven interesting papers in Tamil were read at the Conference on educational topics by trained teachers. The first was on the kindergarten method. The teacher brought his pupils from Sivagiri, which is at a distance of 18 miles from Sankaranainarkoil, and gave a very good lesson from the story of the Wolf and the Lamb to his pupils and showed practically how the kindergarten method can be easily adopted by teachers and how a knowledge of colour can be imparted to the pupils incidentally in the same lesson. The kindergarten drill was splendid. The audience was greatly surprised at these as the teacher and the pupils were panchamas. The second was on Nature Study. The teacher showed practically how this subject should be dealt with by giving a good lesson on Flowers. The third was on Free-arm Drawing. The teachers gave a clear idea of the subject by quickly drawing on the black-board the pictures of a duck, a snake and a monkey as suggested by the President. The three other papers were on the teaching of Geography, Civics and Manners. Lastly, Mr. A. Govindarajulu Mudaliar, B.A., read a paper in Tamil giving a clear idea regarding the new Scheme of Studies for the Elementary Schools.

Afterwards the President delivered in Tamil a very interesting and instructive speech which was listened to with rapt attention. He said that he was highly pleased to see before him such a large number of managers and teachers, some coming from a long distance of 20 miles, and that he was much satisfied with the Sub-Assistant Inspector for having arranged such a Conference. He described how Lord Curzon tried to introduce new and improved methods of teaching in the Elementary Schools. The causes that led to the abolition of the old Results Grant system and the introduction of the new Annual Grant system were explained. Who deserves to be a teacher? One who is a father to his pupils. Kindness should be the chief characteristic of him. Pupils should not be regarded as a source of income for the teachers. His aim should be to preserve the pupils' bodies and to improve their mental and moral qualities. The pupils should not be shut up in badly ventilated school-houses from 6 A. M. to 6 P. M. without any break at intervals. He pointed out with illustrations the mistakes committed in teaching Tamil poetry and decried the habit of too much cramming encouraged by the teachers now-a-days who do not care to impress well the subject matter in the minds of the pupils. He traced the habit of cramming common in the B. A. classes also to the Elementary Schools where the foundation for higher education is laid. Great is the work of teachers in the Elementary Schools. In Germany men of higher educational attainments, are appointed to the Elementary Schools.

The good conduct of the pupils depends upon the good conduct of the teachers. There are many irregularities in the Elementary Schools which are generally

invisible to the supervisors of schools and which tell upon the character of the pupils. Some teachers are much dissatisfied with the amount of income they get and grow indifferent to their work. Such teachers may very well bid farewell to their teaching profession and take up some more lucrative work. Formation of character is more important than the imparting of instruction. If a pupil were to have character, his education would be in vain. There are very few honest men in the villages. Souls have been created in men with a view to enable them to attain *mukthi*. The pupils should be trained for this end. The Indian pupils are wanting in the powers of observation generally. The English pupils observe everything minutely, and take a special delight in noticing the natural phenomena. Steam engine and vaccination are the outcome of observation. The Indian pupils go about like beasts. Hence the necessity for teaching Nature Study and Elementary Science in Elementary Schools. Black-boards on the walls are very essential for the kindergarten drawing. The necessary apparatus and appliances for kindergarten teaching should be kept in the museum, which should be formed in every school. Every Elementary School should be provided with a garden. Generally pupils take delight in noticing the growth of plants. Pupils may become spoiled by bad company. But powers of observation and good thought are developed in them by their association with a garden.

Attempts should be made to form a library which should contain good story books. The story taught with the help of the kindergarten method before the Conference was very satisfactory. All the teachers should try to teach their lessons intelligently.

In the olden days teachers were regarded as devils. The pupils were seen being conveyed to schools forcibly by four others. The speaker, in his early boyhood, did not attend the school for three months owing to the great severity of his teacher. Should the teachers be kind and adopt the improved methods of teaching, the pupils would, of their own accord, run to schools.

With the President's speech, which was very impressive the academical portion of the Conference came to a close at 4 P.M. Then the Conference broke for half an hour for lunch. The Conference re-assembling at 4-30 P.M., the President announced that the members of the Conference were at liberty to express their grievances, if any, bearing on educational matters. Great was the delight of one and all to hear the announcement. Then one after another stood up to ventilate one's grievances. The general complaint was that the amount of grant paid under the annual grant system was not commensurate with the intelligent work expected of the teachers under the new rules, and that under the annual grant system the good and bad schools were placed on a par. One expressed his high sense of gratitude to Government, the Director and the Inspector of Schools for the deep interest they have been evincing in promoting the cause of elementary education and bettering the status of teachers in Elementary Schools. It was also

suggested that the Educational Officers in the Sankaranainarkoil Taluk were put to much inconvenience for want of rest-houses at the head quarters of each Village Munsiff, that their precious time was wasted in tedious and tiresome travelling for want of proper road from village to village, and that in the cause of elementary education, Government be requested to place a special grant at the disposal of the Taluk Board, Tinnevely, for the construction of rest-houses and improvement of village roads in Sankaranainarkoil Taluk. It was also proposed that with a view to widen the knowledge of the elementary teachers and ignorant villagers regarding the outside world, each Sub-Assistant Inspector of Schools should be provided with a magic lantern but different sets of slides should be supplied to each Assistant Inspector's Division, so that the different sets may be in use in different Sub-Assistant's ranges simultaneously, the sets of slides being passed on from one Sub-Assistant Inspector to another. Another requested the Inspector, to convene a similar Conference at Sankaranainarkoil under his presidency every year and to arrange for a series of lectures in Tamil by specialists on such subjects as Agriculture, Botany, Physiology, Free-arm Drawing, etc., to be delivered at such a Conference. A suggestion was also made to the effect that an Educational Exhibition should be organised in connection with the Conference, and that prizes be awarded to the best exhibits. Finally, the following resolutions were passed:—(1) That the system of aid under the old results grant system is preferable to that under the new annual grant system, since the amount of grant earned under the former was more encouraging. (2) That the teachers in the Board Schools on less salaries, than Rs. 10 per mensem be entitled to subscribe for the Provident Fund. (3) That the teachers in Board Schools containing the Fourth Standard should enjoy the privilege of appropriating the school fees and drawing the capitation allowance like the teachers in Board Schools teaching up to the Third Standard. (4) That the Sessional School be utilized for improving the teachers ignorant of Nature Study, Civics, Free-arm Drawing, etc. (5) That an itinerant Free-arm Drawing Master be appointed for the Sankaranainarkoil Taluk by the Taluk Board, Tinnevely. (6) That the production of the acquittance certificate should be insisted upon when admitting a pupil into one Elementary School from another. (7) That books in Tamil on Kindergarten method, Nature Study, Civics and Free-arm Drawing be supplied to the Board Schools for the consultation of the teachers. (8) That the school leaving certificate should be granted to any pupil who is successful at the annual examination held by the Inspecting Officer without insisting upon the condition that he should have been a pupil in one and the same school for three years consecutively.

The Sub-Assistant Inspector also organised an exhibition on a very small scale of the Nature Study pictures drawn by some of the teachers in his range.

The anatomical pictures. (1) The cerebro spinal cavity and its contents; (2) Transverse section of spinal cord; (3) Roots of spinal nerves issuing from cord.

The right anterior root has been divided and turned upwards. (4) Section of a circumvillate papilla showing the distribution of its nerve fibres; (5) Vertical section of the skin and the sub-cutaneous tissue magnified; (6) Diagrammatic front view of the left ear—a portion of the temporal bone had been detached. (7) View of the human eye divided horizontally through the middle; (8) The muscles of the right orbit; (9) The general structure of man-skeleton—drawn by a teacher of the Elementary School, Rudupatti, attracted much attention. After the close of the Conference at about 6 P.M., a social gathering of all the managers and teachers was held. The series of the interesting programme consisted of girls' *kolattam*, conversation and recitation, play on harmonium, fiddle, flute, accordion and mimicry, singing the national anthem by boys in Tamil in accompaniment with harmonium. Fine Hindustani, Telugu and Tamil songs were also sung. The predominant feature of the gathering was that the teachers of Elementary Schools vied with one another in singing the special songs composed by them for the celebration of the Birthday of His Majesty the King-Emperor.

Finally, the whole audience stood up and the national anthem "God save the King" was sung accompanied by the accordion. Rev. Mr. Devadas, Chairman, C. M. S. Circle, Vagaikulam, proposed a hearty vote of thanks to the Inspector, Assistant Inspector and the Sub-Assistant Inspector of Schools for their interest in education. The Sub-Assistant Inspector expressed his thankfulness to the managers and teachers, who were kind enough to be present at the Conference in response to his invitation at great inconvenience. Thus the day's proceedings were brought to an end at 7-15 P.M.

The Reform of Juvenile Criminals.

By ARTHUR MACDONALD, Washington.

The best methods of reforming young criminals are more or less a matter of opinion. For the causes of crime have not been sufficiently determined, so that remedies may have an adequate application. To treat a disease, without knowing its cause definitely, may be the best that criminology can do at present.

As in physical so in social disease, the individual subjects must be studied, if the real causes of crime are to be found. Such professional and scientific investigation is the only path to the root of the matter. But such study has barely commenced in our country. Not merely the punishment of crime, after it has been committed, but, as Pestalozzi says, the education of man to do good and the killing of the cause of crime, are what will protect the community.

VALUE OF SAVING ONE CHILD.

Every child kept from being a criminal wins for the State a good citizen, but every child becoming a criminal through the State's neglect of conditions leading

to crime, is a vicious parasite, and whether free or in prison, feeds upon the people. The preventing of one child from going wrong may save the State the cost of some notorious criminal trial, and protect the community from reading the details of the life and acts of some moral degenerate or pervert, tending to make him a hero rather than a culprit.

SIN OF MODERN TIMES.

Any description of a crime, that tends to palliate it or make it interesting, or associate it with dignity or respectability so that the resultant impression is one of interest in, or acquiescence in or condoning the evil, is the great sin of the press, stage, and literature of modern times. Such publications are a positive evil to society, on account of the law of limitation; and, in addition, make the criminal proud of his record, and also develop the morbid curiosity of the people. It is especially the mentally and morally weak who are affected.¹ But any description of crime, that makes you detest the crime, is moral in its effect, even though it involves objectionable details.

CHILDREN SHOULD NOT BE LEFT TO THEMSELVES.

Prevention of crime concerns the care of the young, and especially those who are criminals, vagabonds, paupers, homeless, or without proper home, or in any way neglected by being left to themselves. The child is not master of itself, but its environment controls it. Perhaps in as many as nine cases out of ten, the child will be what its surroundings tend to make it.

TWO CLASSES IN MORAL DANGER.

There are two classes of children in moral danger (1) those who can be saved by ordinary pedagogic means, and (2) those who have need of some special method of reformation.

There are some children, who without being disposed to do evil, are led astray by their environment, sometimes it is bad companionship, sometimes their own parents force them into vice and crime.

SIGNS SUGGESTING VICIOUSNESS.

There are other children who seem to be vicious by nature. These often present a characteristic appearance. There is a certain animality in the face, the eyes are without expression, the forehead is low or depressed, the jaws are very large, the edges of the ears are rough, the ears extend out prominently from the head. Sometimes the complexion has an unhealthy color. Such children may be too large or too small for their age; or they may appear older or younger than they are. Some do not look you straight in the face, but have a stealthy,

¹"Man and Abnormal Man" (by writer) Senate Document No. 187, 58th Congress, 3rd Session, including a study of children, in connection with bills to establish laboratories under city, state and federal governments in the study of the criminal, pauper, and defective classes, with bibliographies.

This document may be obtained on application to any United States Senator or Representative.

oblique or variable glance. Some stutter, hesitate or become confused. These defects are only signs and of course, do not necessarily mean the existence in the person of the things signified. They mean that such individuals will at least bear observation.

CYNICAL CHILDREN.

There are children who advertise their corruption, treating with effrontery whoever interrogates them, laughing at the questions, manifesting cynical pride and glorifying themselves.

One learns to know the hypocrites and sneaks who cry with effort and protest their innocence, without appearing too desirous of escaping justice. It is easier to recognize the true character in children from 10 to 16, than in those younger.

SIGNS, SUGGESTION, SINCERITY.

A clear voice, open toned, well pitched, even under strong emotion, is a good sign. If the look is direct, a little elevated, if the eyes are directed straight at you, if the mouth has no contraction, if the arms, hands and legs are in a state of repose, these are signs of a sincere nature, but only signs.

It is important to distinguish whether a child is bad by nature or whether its badness comes from its environment. A child might commit several serious crimes, being lead astray by its surroundings, and yet not be bad by nature, especially, if at the time, it did not recognize the gravity of the crime, but later regretted it. Such a child should never be placed in company with a child, who to all appearances, is bad at heart.

CASES OF IMPROVEMENT OR REFORM.

In order that the reader may study the cases¹ for himself, those where the treatment was successful, are first given, and then follow cases where reform proved impossible.

IMPROVEMENT THROUGH ENGLISH REFORMATORIES.

The reformatories and industrial schools of Great Britain have improved three-fourths of their inmates as the following table indicates.

Great Britain.	REFORMATORIES.				INDUSTRIAL SCHOOLS.			
	Improved %	Doubtful %	Relapsing %	Unknown %	Improved %	Doubtful %	Relapsing %	Unknown %
1882	74	5	10	11	80	6	3	11
1883	72	6	11	11	80	5	3	11
1884	74	6	10	10	80	6	3	10
1885	75	6	10	9	81	5	4	10
1886	75	7	10	8	83	5	2	10
1887	77	6	9	8	84	5	3	8
1888	76	5	11	8	82	6	3	9
1889	75	6	12	7	83	5	3	9
1890	75	6	11	8	84	4	3	9
1891	77	5	10	8	85	4	3	8

¹Selected from special investigations.

TWO CASES WITH HEREDITARY TAINT.

Girl, 13. She was thirteen years of age. Her father was nervous and also had an affection of the heart, but he was a sober man. Her mother was very nervous, subject to hysterical attacks. One brother died of croup, another of meningitis. She was of average height, sallow complexion, black eyes, dark brown hair, had narrow and receding forehead, ears well formed, but a little large. She knew how to read and write, but had no taste for study. She did not like to sew. She was a coquette, dressed with much care and cleanly. But she was giddy and hairbrained; she talked constantly, incoherently and without sense. At times she was unconscious of what she said. She was very affectionate towards her parents and while she liked her brother and sister, she struck them often.

Good training would help this child sufficiently to live properly in the community.

Boy, 11. The boy was eleven years of age; he had a flat forehead and nose; his ears were almost without lobes. He was very limited in intelligence and could barely read and write; was filthy in speech and so violent and dangerous that he needed close watching at school.

His brother was insane and his father was an alcoholic and had served several times in prison for violent assaults. Much might be done to help this boy but not without taking him away from his surroundings.

IMPROVED BY REFORMATORY.

Age, 12 years; length of head 179 m. m., width 160 m. m., circumference of chest 69 c. m., height 137 c. m., sitting height 70.5 c. m., arm reach 141 c. m.¹

At the right corner of the mouth was a linear cicatrix 2 c. m. long, prolonging the line of the mouth.

Nothing was known as to antecedents. The family were day laborers living in an industrial village; their morality was doubtful; they allowed their children to be vagabonds and thieves. Arrested, the boy was acquitted and put under the charge of public charity. This boy had contracted bad habits, which were so deeply rooted, that he could not be sent to a family. He was sent to a reformatory. After two years here, his conduct was modified sufficiently to be given employment outside of the institution.

REFORMED BOY TWO YEARS LIFE IN REFORMATORY.

Boy, age 15, orphan; length of head 180 m. m., width 156 m. m., circumference of chest 74 c. m., height 143 c. m., sitting height 71 c. m., arm reach 146 c. m.

This boy was very healthy, he had been to school and knew how to read and write. He was brought up by his aged and feeble grandfather who lived in a section where prowlers were numerous, intractable and brutal in disposition.

¹ When the arm reach is greater than the height, it is generally regarded as a defect.

This boy was taken from these unhealthy surroundings and sent to a school for correction, where his bad tendencies were put under control in two years.

SAVED BY REFORMATORY.

Boy, age 15 years, orphan; length of head 181 m. m., width 168 m. m., circumference of chest 73 c. m., height 151.5 c. m., sitting height 76.1 c. m., arm reach 150 c. m.

The boy had good health. He was educated by an uncle. He could read and write, was somewhat pretentious. He was placed in domestic service, but he soon began to steal, justifying it by a revolting cynicism. His moral sense seemed false; it was necessary to keep him from temptation, and to attempt to set his conscience aright. He was sent to a reformatory where he could make preparation to enter the army, otherwise he might be likely to fall back into crime.

TWO VAGABONDS REFORMED BY FAMILY MOUNTAIN LIFE.

These were two brothers seven and ten years of age.

Boy 1. Father dead; length of head 164 m. m., width 145 m. m., sitting height 55 c. m., height 107 c. m., arm reach 102 c. m.; thin lips, pointed chin.

Boy 2. Length of head 175 m. m., width 150 m. m., sitting height 63 c. m., height 124 c. m., arm reach 120 c. m.; slight scar on left eyebrow.

These two boys were healthy and vigorous, presenting no defect of hearing, seeing or speaking, no anatomical stigmata. Nothing could be found as to their antecedents, except that the mother had rickets, stuttered and was very limited in intelligence, leading a haphazard life, making her children beg.

These children never went to school; but were very active as vagabonds in several communities, where they were a pest, sleeping in barns. They would pass by food and fruit, but would steal a watch or other object of value. Finally they were arrested and imprisoned. A committee of a local charitable society, intervened and had these boys taken out of custody and put under the care of a good man. But they escaped and continued their voyage home, a distance of 30 miles. They were arrested the next day while in the act of stealing.

When the younger one was questioned as to his acts, he looked at his brother and at the questioner, raising his shoulders a little with a sense of superiority and pity. What shall be done with these boys who intend to live as they please?

These two vagabonds were sent to live with an honest mountaineer, to have a bed, a place at table to eat regularly and to attend school. After four years of this life, those boys were completely transformed and reformed.

HOPELESS CASES.

In vicious and criminal children, the cause of their degeneracy can often be traced to hereditary antecedents, yet in some cases, as we have seen, careful but severe treatment will save them, where otherwise their bad instincts would lead them to destruction. If, however, such treatment through neglect of parents, or

others, be delayed until the child is somewhat grown, it will in most instances fail, for criminal taint has had opportunity to develop and permeate the character. Such a child is morally frail, with little power of resistance and liable to fall under the least temptation. A few seem to have a sort of blindness and want of comprehension, being absolutely under the sway of their instincts and impulses. For these there is little or no hope.

INCAPABLE OF REFORMATION.

Boy, 14 years of age, father dead; length of head 170 m. m., width 155 m. m., height 150 c. m., sitting height 77 c. m.; he had a club foot and congenital paralysis. His father was an alcoholic, dying at the age of 35 of pleurisy. The mother had good health. She was treated brutally by her husband, while with child. Two other children, a boy of ten and a girl of seven showed nothing unusual. The boy's paralysis did not prevent him from being active. He could read, but wrote with difficulty, though he had attended a number of different schools, private and public. He became involved in an immoral affair, which was his undoing before the court where he served as a witness, and gave the details of the scandal. His imagination was perverted.

The child was sent to a reformatory, but without success in treating him. He attempted murder in the street. The defect in this boy was aggravated by the circumstances of his life, it was impossible to reform him.

GIRL, MORAL DEGENERATE.

Girl. One (age 13 years) had an extraordinary physical development for her age; the mother had married again. The girl was brought up by grandparents, who lived in a factory town. The child early showed vicious instincts which frightened the family. She was arrested for a series of thefts of goods displayed at stores. It was a case of precocious puberty. She went to a convent with the formal promise that she could leave after three months. As the time approached, she declared if she was kept any longer she would set fire to the building. Then she was placed in several institutions, but all were glad to get rid of her. At one convent where she remained 48 hours she refused to eat, pretended there was something the matter with her eyes, so she could not sew. At another place where she remained but one night she frightened the sisters and boarders by twisting herself so when laughing that they thought her insane. At the convent where she remained some time, she acted still worse, she would attack the sick, scandalize the personnel by her words and jests. She was vicious by nature. She suffered from a cerebro-spinal trouble and excessive sexuality.

RELAPSES INTO OLD WAYS.

Boy, 13 years of age; orphan; large for his age, he could neither read nor write, and had little mental capacity. His father was a habitual criminal; his mother had a doubtful character. He was cared for by uncle and aunts, with

little means. He showed brutal instincts, stealing jewels and then breaking them to pieces. He was arrested and taken before the Court. The local society took him in charge and found him a home in a good family; in two years, though not reformed, he was somewhat changed for the better, but he went back again to his old ways, himself recognizing that he could not adapt himself. After being returned by his guardian family he began to steal.

BOY WITH HEREDITARY TAINT.

The boy was eleven years old; his father was nervous, violent, a drinker and gambler. His mother was extremely nervous, becoming exceedingly angry on the least provocation.

He was an apt pupil, when so disposed. But he was lazy, greedy, untruthful and jealous; he played truant at school continually, declaring he had had enough of school. For two months he went out every evening attending balls and other entertainments, not returning until after eleven o'clock. In the day he did not wish to do anything; he was always away. It appears that his father, when a boy, had the habit of sleeping outside. The son had little affection for his mother; he did not wish to kiss her, nor have her kiss him. Brutal and treacherous, he would strike his sister, fourteen years of age, defective in many ways; and as bad as her brother. He would abuse every one and become violently angry, threatening to break everything. Every effort was made to help this child: nothing could be done.

DEGENERATE GIRL WITH BAD PARENTAGE.

Age 15, mother dead; length of head 171 m. m., width 151 m. m., height 166 c. m., sitting height 85 c. m., arm reach 168 c. m. There was a scar on the upper right jaw, another on the middle of the left jaw.

The father was an alcoholic, and led a bad life. The girl was large and had the appearance of being 20 years of age; had excellent health, with the exception of an enuresis.

Reared by an uncle, she was put under the care of a good pastor, where she proved to be impossible. Arrested for theft, she was sent to a convent.

This is another case of cerebro-spinal trouble, and excessive sexuality. She was sent to work in a manufactory, but she left and returned telling a story she had invented. In spite of all the efforts to reform her, she did not grow better. At the last convent she lived in, she broke a door to regain her liberty.

IMPULSE TO RUN ABOUT PREVENTS REFORMATION.

Boy, age 16, orphan; length of head 187 m. m., width 144 m. m., height 156 c. m., sitting height 84 c. m., arm reach 158 c. m. Eyebrows near each other; dimpled chin: scar at end of chin; tattooing on left wrist, a symmetry of face.

This boy was reared by a brother-in-law. He was employed in a hotel. He stole three dollars from one of his fellow servants. He was placed with an employer in the city and for three months with another employer, where he saved

a little money. Unfortunately his impulse to be on the go, brought him into the street, where it was not long before he was arrested.

VAGABOND NATURE TOO STRONG.

Boy, age 17, father dead; length of head 177 m. m., width 149 m. m., height 150.3 c. m., sitting height 79 c. m., arm reach 155 c. m., health good.

The mother earned her living with great difficulty. Her boy in company with an Arab was arrested for being a vagabond. He appeared gentle, maleable and manifested good intentions. He was placed in a family of a well-to-do farmer, who seemed disposed to aid him as best he could. For a few days everything passed quietly, but the boy associated with all the vagabonds coming that way. He was returned to his mother, who found him a place with a former employer. She had little hope that he would continue to do well any length of time.

PRISON COMPANIONSHIP CAUSED RELAPSE.

Boy, age 18, father dead; length of head 175 m. m., width 156 m. m., height 172.3 c. m., sitting height 93.6 c. m., arm reach 180 c. m., good health.

Arrested for theft, he was sentenced for the first time to three months in prison. After serving his time, his mother died. He was placed with an employer where he gave satisfaction. But he met a confirmed criminal (recidivist), with whom he had been in jail. He suddenly left his employer to take up with his former prison companion.

BOLD ROBBER.

Boy, age 13, length of head 165 m. m., width 152 m. m., height 135 c. m. umbilicus was prominent. This boy had a badly shaped palate (pointed arch); he had an enuresis. When eight years old he was very sick. He spoke with difficulty, half French and half patois; was wholly illiterate. He was placed in service with several employers. His father was a grave-digger. The boy was very backward mentally. There were five other children, about whom nothing is known. This boy was sentenced to a house of correction for 19 years, on account of a number of bold thefts; getting upon the roof, opening the scuttle and going down into the house.

CHILDREN NEEDING PROTECTION.

There are three general classes of children, especially needing protection and study: Abandoned children, vicious children and criminal children.

The abandoned children constitute the greatest number needing care. They consist of:

1. Foundlings whose parents are unknown.
2. Those deserted by their parents.
3. Paupers, without parents and without means of subsistence.
4. Those whose parents through disease or physical or mental incapacity, or detention or sentence for crime, cannot care for them.
5. Children whose parents expose them to vagabondage, begging and idleness, or children who through bad treatment are ignored.

By vicious children are meant not only those who may be vagabonds or beggars, but such as do not submit to their parents and so withstand education, as unruly children in school.

Criminal children, whose age of responsibility may vary.

SOME METHODS OF REFORM.

These methods of reform are in accord with the opinions of many engaged in practical work and are offered merely as suggestions.

PROTECTION OF CHILD BEFORE BIRTH.

It is important to protect the intra-uterine life of the child, special care should be given to the woman with child, by maternal care, by relief at domicile, by arrangement of work, by creation of asylums, and of private maternities, and by examination into the paternity of the child.

PROTECTION IN EARLY LIFE.

The conditions of social life often prevent the mother from taking care of her child from its mother and she is not always capable of giving the child the necessary care. There should be established institutions for rearing children according to the best methods.

SCHOOL LIFE.

Hygienic principles should be established in the schools. The teacher, according to a French specialist, should have charge of more than 20 pupils. A physician or specialist should be present at the formation of the classes. He should always examine any pupil showing himself incapable of adaptation to the conditions.

JUVENILE CRIMINALS.

Young vagabonds, less than 16 years of age, should not be committed to jails or police stations, or houses of arrest, but should be sent to an institution for observation, to determine what to do with them. Such inquiry should be made by a commission, one member at least being a physician.

The youngest should be assigned to families; the others should be sent to some reformatory school, or to a clinical school, whose head should be a physician or specialist. Adolescents (16 to 20 years of age) should be sent to some reformatory, without fixing in advance the length of time they should remain.

LOMBROSO'S METHOD.

According to Lombroso, one of the best methods of prevention for the "born criminal," is moral nursing; that is, the rearing should commence in the first months of life, in the country, on the farm, in colonies, out of the reach of criminal association. A fight against alcoholism should be carried on by associations, by religious, political and temperance societies, by journals, and all these agencies should be in connection with medical treatment.

T. 2 000 000

000

தமிழ்நாடு ஆவணக்காப்பக நூலகம்,
எழும்பு, சென்னை-600 008.

தவணைத்தாள்.

சே எண் : 190583

ப. எண் :

[illegible]

S.F. 259A-6-1,00,000-30-1-84.