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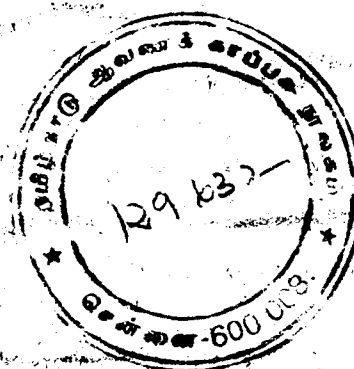
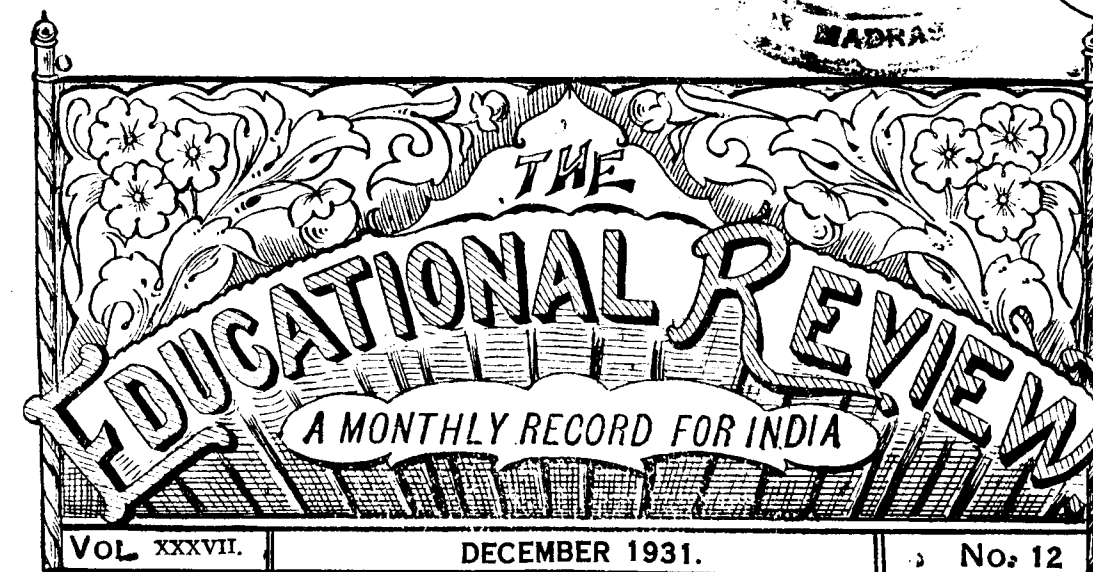


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184



CONTENTS.

	PAGE		PAGE
A VISIT TO ROMAIN ROLLAND. By Prof. P. SESHADRI, M.A., Cawnpore ...	839	OUR SCIENCE COLUMN. By 'SCIENCE' ...	891
THE TESTAMENT OF BEAUTY. By Mr. P.K. SESHADRI AIYANGAR, B.A., B.L., Chingleput ...	842	PLACES OF EDUCATIONAL INTEREST—VI. A TOUR ON THE WEST COAST. By Mr. L. N. GUBIL SUNDARESAN, Teppakulam, Trichy, ...	895
CURRICULUM IN TEACHER-TRAINING FOR ELEMENTARY SCHOOLS IN U.S.A. By Mr. K. N. KINI, M.A. (Hons.), A.M. (COLUMBIA), Mysore ...	847	NEWS AND NOTES ...	898
WHAT I SAW IN SOVIET RUSSIA IN SUMMER LAST. By Mr. R. S. GUPTA, B.A., LL.B. (All.), Dip. Ed. (Bris.), Agra ...	849	Chittoor District Teachers' Guild; The Ramnad District Teachers' Guild—Second Conference 1931-32	
INDUSTRIAL AMERICA. By Mr. S. RADHAKRISHNAN, Bapatla ...	857	REVIEWS AND NOTICES ...	908
"KING LEAR." By Mr. R. KRISHNAMURTHI, Vellipalayam, Negapatam ...	859	Advanced Calculus—A Sequel to 'An Elementary Treatise on the Calculus, by George A. Gibson; New Geography of the World by W. R. Kermack, B.A., F. R. G. S.; Domestic Science for High Schools in India, Part II by Ann G. Strong, B.Sc., Columbia.	
THE MAGIC WAND OF THE TEACHER. By Mr. P. S. VAIDYANATHASWAMI, B.A., L.T., Triplicane ...	861	EDITORIALS ...	907
COMPULSORY PHYSICAL TRAINING IN SCHOOLS. By Mr. C. N. RAGHAVACHAR, B.Sc., Kolar ...	871	Broadcasting in India; Students and Discipline; A Guzerati Poet; All-Asia Educational Conference; The Andhra University; Sir C. V. Raman's Convocation Addresses; Indian Students in Germany; The Mysore University; Education and India's Political Future; The English Language in India; Mahamahopadhyaya Hara Prasad Sastri.	
THE TEACHING OF SCIENCE. By Mr. P. V. SUBBA RAU, B.A. (Nat.), Peddavadugur ...	876	AGRA UNIVERSITY CONVOCATION ADDRESS. By Dr. Sir C. V. RAMAN, Kt., F.R.S., N.L. ...	917
MEDICAL INSPECTION OF PUPILS IN SCHOOLS. By Mr. S. VAIDYANATHA AYYAR, B.A., L.T., Wallajapet ...	881	ANDHRA UNIVERSITY CONVOCATION ADDRESS. By Sir M. VISVESVARAYYA, K.C.I.E., LL.D., D.Sc., M.I.C.E. ...	925
PARENTS' ASSOCIATIONS. By Mr. A. S. VENKATARAMAN, B.A., L.T., Chittoor ...	893		
FIRST VIEW OF EUROPEAN LOGIC BEING AN EXPERIMENT IN INTRODUCING ARISTOTELIAN LOGIC. By Mr. KRISHNA R. GURUSWAMY REDDIAR, M.A., (CANTAB.) ...	897		

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effortless conversation to understand that you are before a Master.

Romain Rolland's studies of Gandhi and Ramakrishna Paramahansa have given ample proof of his strong Indian interests and much of our preliminary conversation was naturally on Indian themes. Talking of Mahatma Gandhi's philosophy of non-violence, we went back to the Bible and Count Leo Tolstoy. Romain Rolland told the story of how Tolstoy's chance meeting with a wounded man who would not resist even a dacoit, set him thinking and years later he evolved his creed. The same message, he said, has come to us again from the East through Mr. Gandhi which showed how human thought went round and round the world. He elaborated the remark with a beautiful illustration: We see a tree flowering before us; there are at the same time trees flowering elsewhere in the world and all human thought is one. He realised that Mr. Gandhi's movement did not take much note of literary or artistic life and seemed even wanting in adequate appreciation of higher culture, but he had no doubt they would all come in the wake of a free political life.

He had some very appreciative things to say of Swami Ramakrishna and his disciple of towering personality, Swami Vivekananda. Of the latter, he had no hesitation in saying that if he had lived to-day, he would have thrown himself heart and soul into the present political movement, though it would be a pity, according to him, if the members of the Mission took to politics forgetful of the high spiritual aims of the movement. Talking of the Vedanta and Hindu philosophy, he was disappointed that the writings of Aurobindo

Ghosh did not fulfil the great expectations raised some years ago and he agreed that he was getting lost more and more into the mazes of mysticism and the obscurities of the Yoga system. It seemed to him that he had exhausted himself.

We talked a good deal about the cultural aspects of Bolshevism, particularly in view of some recent books on the subject, in which it has been claimed that there is a definite philosophy of literature and art behind the present movement in Russia. He was firmly of opinion that the disappearance of the oppressive Czarist regime had enabled the soul of the people to find free expression. Dialects which had been suppressed by the old Government were developing literatures of their own to-day. People were recognising the value of the folk-songs of the masses in the different provinces which were now being collected in Russia and even by the authorities of the opera in Paris. To give further demonstration of the artistic renaissance, he went up to a cabinet and brought out one or two specimens of lacquer work which he had recently received as presents from friends in Russia. He expatiated upon the symbolic figures painted upon them, pointing out how they were really akin to the spirit of the great masters in painting and were not entirely devoid of touches of classical traditions.

The accident of the intimate political association of India with Britain is of course responsible for the fact that India's appreciation of Western culture and civilisation is largely through English, but like many others, Romain Rolland regretted that India was not in intimate touch with the other cultures of Europe also. While gratified with

the assurance that things were getting better and the cultured Indians of to-day had a wider intellectual sweep and Indian writers, for instance, were even seeking inspiration in French masters like Guy de Maupassant and Anatole France. Romain Rolland thought it was not enough and it was necessary to go even into the earlier centuries of French literature and art. He had no hesitation in thinking that India would find a good deal of spiritual kinship in the soul of those who had built the mediæval cathedrals of France which seemed to possess the same wealth of sculpture and decoration as the great temples of India.

Conversation with a literary master of the great calibre of Romain Rolland was bound to travel over all kinds of intellectual topics and it was not surprising we talked of Shakespeare, among other subjects. In spite of being an enthusiastic admirer of Tolstoy's philosophy of non-violence, he had nothing but amused disapproval of his attacks on Shakespeare, when I mentioned my reactions to them on their first appearance in the early days of my own career. He paid a tribute to his religious spirit and thought that nobody could ignore the element in his work, or in the literatures of France and Italy or generally in European literature. We talked of unjust accusations of literary plagiarism and I mentioned some illustrative anecdotes regarding the poetry of Tennyson. Rolland was aware of this kind of activity on the part of second or third rate writers and said that while the study of literary parallelisms was to be welcome, there was nothing to be said in favour of these 'plagiarism-hunters.'

Having already spent a good part of the afternoon with him, I only thought it fair to leave him alone, especially in view of the fact that he had just arrived after a long journey. Wishing me good-bye, he affirmed his conviction that mankind would benefit immensely by closer contact among intellectual workers. Existing separately, he said, they were like candle-bearers moving in the dark recesses of a vast forest, but coming together and joining hands they could produce some illumination in the world. Walking along the beautiful avenue of plane trees which led down from his house, in a few minutes the glassy lake burst on our vision with the steamer to Geneva speeding slowly towards the shore. There was also a wonderful view of the snows on the Alps, which seemed a fitting conclusion to a day of such delightful experiences. The steamer made its way back in a few hours and we were in Geneva as the lights twinkled at night and as the magnificent fountain at the entrance to the harbour seemed a pillar of fire rising to the skies, illumined by the cleverly designed system of flood-lighting in shifting colours. As I stood, late at night, in the balcony of my hotel facing the lake, I did not know whether to go into raptures over the wonderful view of Mont Blanc in the distance, the entire city of Geneva spread at my feet, or muse with pleasant recollection on my visit, during the day, to one of the great writers of the world.

visionary and other worldly musings could wear an appropriate form and earthly solidity wedded to a perfect rhyme and marching tune 'which can turn men's utterances to the speech of the gods.' Shelley would have liked to call them solid as crystal yet through all their mass as through empty space music and light flow. Robert Bridges will say that

Allegory is a cloudland investing fancy
To lend significance to chancy shapes.

Keats employed with a fair measure of success the allegorical representation of abstract ideas in diverse forms and persons though it must be confessed that Keats' poetic gift of allegorising would unfold itself clearly to poets like Robert Bridges who had the advantage over all other ordinary observers of a true poetic insight by which he discerned more than was visible on the surface of Keats' poetry. Among the ancients Homer was, in the chaste and elegant diction of Pope, a pastmaster in the art of allegorising all 'the properties of the elements, the qualifications of the mind, the virtues and the vices' and in fact all 'those innumerable knowledges' and 'to introduce them into actions agreeable to the nature of things shadowed.' But when one pauses awhile and considers who it was that among the ancients adopted this form of poetic treatment to invest love with all the attributes of worldliness and divinity it was surely Plato. He said that a poet 'if he means to be a poet ought to make fables and not discourses.' In his 'La Vita Nuova' Dante personified love as a powerful king residing quietly in the palace of the heart but starting suddenly to act at the sight of beauty in virtuous womanhood. In another place Dante says that love resides in the eyes of his lady

as a result of which all that she looks on is made pleasanter and then by the power and presence of love 'hate loves and pride becomes a worshipper.' In still another place he says that his heart spoke to him with tongue of love. He sees love coming to him, speaking to him, and smiling on him. It has to be remembered that in all these personifications of love the idea that Dante wanted to convey was not that love was an outward visible bodily substance but a spiritual essence and that it was a poetic licence to discourse on love as if it were a corporeal substance with a habitation and with a power of movement, speech and smile. Shelley must certainly have drawn from his translation of the 'Symposium' all the craft of personalising the emotions and dropping down divine visions through the atmosphere of myths.

Love according to Plato is that which stirs in us the desire to attain those we do not possess. Love wants but does not possess beauty which is goodness. Love is that which desires beauty or goodness conceived in its highest form and noblest quality. As Dante said 'beatitude is the goal of desire.' Desire is the seed of creation. 'In the beginning there was self alone, one only. He desired etc.' and then created the cosmos. It is the urge to all attainments and realizations. Desire for wealth, wife, children, etc., is necessary to attain the bliss of the self. 'Man is like a sea for the insatiable nature of his desires; whatever he attains he desires to go beyond it; if he gains the sky yet is he not content.' He who wants to love rightly, *i.e.*, to generate in himself the supreme desire whose goal is beatitude must discipline himself in love. It was of this disciplined

love that Tennyson spoke in his 'Love and Duty.'

Love himself will bring

The drooping flower of knowledge changed to fruit
Of wisdom.

Plato speaks of five paths by which love should be disciplined to give us fortitude, temperance.

Council, comfort, and words

That make a man feel strong in speaking truth.

The true lover should *firstly* like to see beautiful forms and centre his affections upon a single form, *secondly* use the form of his choice 'to generate intellectual excellences,' *thirdly* he should feel convinced that beauty is the same in whatever form it resides, and he should gradually 'remit his ardent desire towards the one through his perception of multitude of claims upon his love.' *Fourthly* he should shift his attachment from the mere form of outward beauty and rest it safely on the inwardness of beauty, its duties and laws. The *fifth* stage is reached when he turns towards 'the wide ocean of intellectual beauty' and extracts 'the science of universal beauty.'

Love is the lover and not the beloved. What is his power and nature? "He interprets and makes a communication between divine and human things, conveying the prayers and sacrifices of the men to the gods, and communicating the commands and directions concerning the mode of worship most pleasing to them from gods to men." A mythological figure stands aghast and tells me 'If love is all that you have said above, it is I. I am the Agni of the Vedas. I am the speedy messenger of earth and heaven.' The praises of the Vedic Agni have been sung by many Rishis of Vedic India in language of true poetic inspiration. Agni quotes Vasishta in support

of his contention that he 'goes as messenger with knowledge between all sons of man and gods in heaven' (Book vii, Hymns 4 and 5.)

Viswamithra hails him as a wondrous envoy between heaven and earth firm seated as the herald. (Book iii, Hymn 3.) Agni says 'Who is it that conveys the sacrifices and prayers to the gods if not I? Again let Viswamithra be my witness. I bear the gifts of sacrifices away to the gods (Book iii, Hymn 27). Men send their oblations to the gods through me (Book viii, Hymn 19). It is through me that men send forth their hymns and songs and praises (Book x, Hymn 88). I shine out from beauty fair to look upon. I lead men to conquering power' (Book x, Hymn 140).

Plato says that love is the intermediary between earth and heaven. All the intercourses and conversations of men and gods while awake and asleep are carried out through love. It is the language in which the gods hold converse with men. Agni says that he alone knows all that springs from gods and all the mystery of men (Book viii, Hymn 39). Plato's idea that he who knows this science of intercourse between God and men is supremely happy, is beautifully rendered by Lilyod Morris thus: 'The gods have looked with pity sending love among us. Love alone is common to their lives and ours. Like a bridge the gods have flung it across the chasm of death, that we may pass serenely.' Agni says: 'I have pervaded and illumined heaven and earth simultaneously as though they were one world (Book iii, Hymn 7). Kasyapa sings of me that I carry men through all troubles and through grief as in a boat across a river' (Book i, Hymn 99). The *Katha Upanishad* referring to the *fire* of Nachiketas says that it is 'a bridge of those who perform sacrifices.'

THE TESTAMENT OF BEAUTY.

BY MR. P. K. SESHADRI AIYANGAR, B.A., B.L.

*Chingleput.**(Continued from page 785).*

XIX.

TENNYSON'S lotos-eaters repudiated pleasures. Did not pleasures tilt the nerves, excite the emotions, and disturb the placidity of our frame of flesh? I will have none of them. 'There is no joy but calm.' Do not be in tune with the external world, nor have any communion with the voice of the inner spirit. 'What pleasures can we have to war with evils?' Is all life a labour? I will have nothing to do with such a one. I cry halt to a life of action. What can I serve by a life of never-ending motion? Do I think that I must set the world in order and roll down all confusion into the sea? Dream not so but rest content, and 'let what is broken so remain.' It was a merciful God that brought a sort of order out of chaos. How can I try to begin all over anew, and 'settle order once again'? No! there is danger in the theme.

There is confusion worse than death,
Trouble on trouble, pain on pain,
Long labour unto aged breath.

Hark ye! my soul! I lay myself on a bed of roses! I watch, hear and see. What greater calm is there than to watch the brook, gliding into the earth from above the hills, rippling along its bed of pebbles, and bubbling, bursting and borne away into the brimming river that finds its resting place into the eternal flux of the sea? How sweet it is to hear and see 'the far off sparkling brine' myself 'stretched out beneath the pine' I will eat

the lotos day by day, dream and live again in the memory of my wedded wife, her embraces, and her warming tears. I will have none of the present which in the flesh is so brutal, nor of the future which is all a fiction. Calm's crowning calm is in the remembrance of happier things. Therefore let me cease from toil and rest in silence.

Surely, surely, slumber is more sweet than toil,
the shore
Than labour in the deep mid-ocean, wind and
wave and oar;
Oh! rest ye brother mariners, we will not wander
more.

Between the lotos-eater's slumbering life and the stillness of his grave, there is an unfathomed and boisterous ocean, to be crossed before reaching the port of silent death. But without crossing the sea the lotos-eater exclaims at the sight of Satan's port,

Have done with labour!
It's handler here; put in at hell.

Tennyson has clothed his supremely felicitous picture of the lotos-eater with all the sympathy that he could weave to dress up the coarse reality, and in the result he brought about a pathetic picture of the eternal slumberer. In this veiled betrayal of the true nature of the lotos-eater, we discern a touch of the comic element whose supreme art is to provoke thoughtful laughter at the follies of a course of life such as the one that the lotos-eater represents.

There was another man who sought to conquer by the force of his will and sacrifice,

To him love was nothing, and the stern god of law was everything.

The god of law above us stands
The stern repayment he demands
And only full sacrifice
Can pay our liberation's price.

How did God respond to this relentless sacrificer who gave his all and reserved nothing? This Brand from the jaws of death exclaimed,

Answer me, O God above!
In death's jaw: Can human will,
Summed, avail no fraction still
Of salvation?

Only a voice cried through the thunder-roar

GOD IS LOVE!

Robert Bridges says therefore

Repudiation of pleasure is a reason'd folly
Of imperfection. There is no motive can rebate
Or decompose the intrinsic joy of active life
Whereon all function whatsoever in man is based

Therefore invoke pleasures, intensify them by love, and you will get into the kingdom of God. Love alone carries you into the halls of heaven. It is the only passport to the chamber of paradise. It is neither of this earth nor of the heavens. It lives in the cottage of the poor, the palace of the prince, and the region of the gods. Its roots are on the earth, its branches hover in mid-air, and its flowers and fruits reach the heavens. The lily of the valley so weak that the 'gilded butterfly can scarce perch on my head' blossoms by the love that shines on all, and withers into the lap of love which nurses it till it is gathered into its grave. Love kindles the cloud to pour down its all into the earth, and then the cloud passes away into 'tenfold life, to love, to peace, and raptures holy.' It is love that wraps the worm into 'the lily's leaf.' Love is therefore omnipresent. He,

like the Vedic Agni, 'pervades and decks the earth and heaven.' (*Rig veda*, Book x, Hymn 80). You have to make call on him and he is at your doors. He who responds to the needs of the worm and the lily of the valley has all the potency and power 'to create peace among men, calm upon the sea, windless silence of storms, and repose and sleep in sadness.'

J. A. Symonds dwells upon Shelley's 'Prometheus Unbound' and delivers himself thus: 'The true mytho-poetic faculty—the faculty of finding concrete forms of thought and of investing emotion with personality—shines forth, with extraordinary force and clearness. We see ourselves in the grasp of a primitive myth-maker while we read the description of Oceanus, and the raptures of the earth and moon.' His poetic inspiration ran unhindered into all the concrete forms of his personalised emotions. The cancer of myth never ate into his poetry. He shone resplendant in the seemingly chaotic vastness of combined mythological form and poetic vision; of personified reality and the dim and floating vision of emotion. Shelley succeeded where Blake failed. Blake set an ideal and Shelley realised it. Blake's ideal of poetry 'as an allegory addressed to the intellectual powers, while it is altogether hidden from the corporeal understanding, finds its fulfilment in the poetry of Shelley. D. G. Rossetti worked on this system with success. He, for instance, gave to the hour all the attributes of personality and spoke of it as 'a bodiless form and unapparent feet, that cast no shadows yet before.' His 'Blessed Damozel' and Coleridge's 'Christabel' and 'The Ancient Mariner' are instances of how profoundly

Who are the parents of love? Plato answers: 'Poverty wishing to have a child by plenty on account of her low estate lay down by him and from his embraces conceived love.' Agni says: 'I am born of two poor mothers, *i.e.*, from two pieces of wood used for making fire. But all the same I make the heavens thunder for mankind (Book i, Hymn 31). I am born low among the forest fires but my flames reach up to the heavens. I never look downwards but am ever rising upwards. My pure flames pierce into the realms of the gods and the impure smoke that gathers round me I scatter into the mid-air by the fury of my fire (Book ii, Hymn 6). If men make offerings to me I give them plenty of riches. I am prudent; my will is pure; I bring welfare; I am allied by birth to heaven and earth in kinship. (Book iii, Hymn 1).

Where does love reside? Plato says: 'He flies low along the ground, and is homeless and unsaddled, he sleeps without covering before the doors and in the unsheltered streets. He is ever the companion of want.' Agni says: 'I am pervading swift and wild. I go to and fro in my car. I am the fleet household friend who turns the curse aside' (Book iii, Hymn 3).

In this comparison between the Greek Love and the Vedic Agni we appreciate the sameness of the idea underlying both. Both are masculine, powerful, prudent, young, never getting old, ancient but with all ever youthful, all pervading, connecting earth and heaven, born of low parents but counted among the gods, responsive and quick to give men all they want. True to the Hindu mind our Vedic seers revelled in crowding their thoughts into a smoke of myths. Why did the inspired sages use language to hide their thoughts? Could it be because they apprehended that their thoughts would not stick if uttered in plain tongue? It might even be that these searchers after truth having found the path, should have resorted to rhetorical and poetical forms to attract by the allegorical setting. We know in fact that with the ancients myths were more powerful in spreading ideas

than the language of mere abstraction. Could it be that as in the case of Christ it was easier to convey lessons in parables than by abstract words? I think it is futile to search for an answer. But anyhow let me say this, namely, that Aurobindo Ghosh's opinion that the Vedas contain hidden truths and mystic philosophies cannot be summarily brushed aside. It might also be, as Aurobindo Ghosh suggests, that the Vedic seers had a sense of the sacredness and secrecy of the new knowledge and kept it away from the vulgar to be revealed only to the initiated. He says that Agni signifies will and some feeling. I have been at some pains to force a conclusion that Agni bears a resemblance to the Love of Plato disciplined by the fivefold path leading from an intellectual to a spiritual apprehension of universal beauty.

Vedic Agni is *Jathavedas*. He is by his very nature the holder of wisdom. Disciplined love is also by its nature wise and leads men to happiness. O! for a Shelley to elevate the flaming tongue of fire into the vehicle of transmission of divine wisdom to the yearning hearts of men! A Blake could have expressed the passion of love in the burning teeth of Agni. A Rossetti could have located the wisdom of love into the tawny beard of Agni. How can I express love's first impulse except to identify it with the Agni of the lightning. The omnipresence of love is best expressed in the eyes of Agni which turn round on all sides. Agni carries all the offerings and sacrifices through his unerring sharp jaws and lays them at the feet of the gods. He rides on his horse so as to bring down the god's blessings to the votaries on earth with all speed. He dispels darkness and brings in light in the same manner as love. Agni! like love you burn away the impurities and shine in your own light. Poetry alone can find language to stuff into the man-god form of Agni all the qualities of love and assign to each organ a particular function of love. It is only a poet, that

From these create he can
Forms more real than man
Nurslings of immortality.

CURRICULUM IN TEACHER-TRAINING FOR ELEMENTARY SCHOOLS IN U. S. A.

BY MR. K. N. KINI, M.A. (HONS.), A.M. (COLUMBIA),

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THE ever-increasing standards demanded by the American democracy in the professional equipment of teachers have kept pace with the volume of research poured out of the higher training colleges (of University level) on the techniques of teaching and the functional values of subjects in teacher preparation; and it can be said that the demand would not have resulted but for the progress of these investigations. The result is the rapid conversion of undergraduate schools of teacher-training into full fledged four year colleges leading to the B.A. or B.S. degree instead of a mere diploma for elementary school teaching.

The significant trends in the pre-service training of elementary school teachers are (1) differentiated curricula for the various divisions (*a*) kindergarten, (*b*) first three or four years of elementary grades, (*c*) last three or four years of elementary grades, and (*d*) rural schools; and (2) the provision of far larger and better facilities for observation of class work and supervised student-teaching. Much emphasis is laid on content courses, in which the subject matter which the trainee would have to teach later in the respective grades is broadly treated. While in the olden days these "content courses" were detached from "methods courses," the present practice is to emphasize the co-ordination of the two, so that subject matter is handled

with a view to improving and enhancing the efficiency of methods of teaching the subjects. The practice of introducing educational theory in the very beginning is becoming out of date; instead, an introductory orient course just to acquaint the pupils with the main purpose of their work as teachers is given and the more abstract treatment of educational theory is postponed to the last stage when the pupils would be in a position to appreciate the bearing of theoretical considerations on practical aspects of teaching. Thus the dualism between subject matter and methods of teaching is being broken, and they are co-ordinated to indicate their mutual relationship.

The American Association of Teachers' Colleges has given a remarkable lead in improving observation classes and supervised student-teaching. Each teachers' college and normal school has to maintain a training school under its own control as a part of its organization as a laboratory school, for purposes of observation, demonstration and supervised teaching. Every student-teacher is expected to do ninety hours of teaching during training, and where these institutions have large enrolment, the elementary schools in the neighbourhood are availed of for practice teaching with the previous approval of the local Board of Education. It is laid down that student-teaching shall be so organized

that it shall lead to a proper initial mastery of the techniques of teaching and, at the same time, to protect the interests of the children in the training school.

SUBJECTS TAUGHT.

As for the subjects taught one is impressed with the multitude of variety, both on the academic side and the professional. Even though the entrance qualification is completion of the high school course, it is not regarded as adequate for a teacher of elementary grades. So English composition and literature, college algebra, solid geometry, trigonometry, principles of geography, history, music, botany, zoology, physiology and hygiene, chemistry, physics, arithmetic of business, local flora, history of civilization, economics, sociology and industrial arts are covered in four years. On the professional side, principles of education, psychology, physical education and hygiene, techniques of teaching, teaching any one major subject, problems in character education tests and measurements and philosophy of education are completed during the period. A significant point in the training is that illustrations and data used are almost entirely American. The text-books are all written by American authors and the educational data included in them are almost entirely from investigations conducted in American educational research laboratories and published in American educational journals.

Educational tests and measurements occupy a prominent place in the training. Static measures are taught with their application in tests-construction and in other educational determinations. Much of this, I found, is done by students mechanically. In some of the classes I could notice that only a third could follow the teaching. But a certain amount of familiarity is however secured and these future teachers are not scared at the mention of the various terms.

When questioned, they refer to books and attempt an explanation. The mode, median, and mean, standard deviation and average deviation, coefficients of reliability and of correlation mean something to them. Study of statistics is becoming a very common affair in U. S. A. because of the very wide application of it in education, trade and commerce, industry, sociology, medical research, etc. Dr. Pearson (son of Karl Pearson) of the London University who delivered a course of lectures here on Statistics deplored that in England Statistics was not popular as in America, though much of fundamental recent researches in it have been carried on there.

A very recent trend in some training colleges is to lay greater emphasis on so called "culture" and to devote the first two years wholly for the teaching of liberal arts subjects and to limit the professional studies to the last two years only. Partly this urge is due to competition with the purely arts colleges for status and partly it is due to the recognition of "the need of a wider horizon and a richer and more penetrating culture upon all parts of all teachers" to use the very words of Dr. W. C. Bagley. The weight of opinion is however on the side of maintaining teachers' colleges on a highly professional level.

With the general raising of the standards of curricula, attempts are also being made to enhance the qualifications of teacher-trainers. The M. A. degree in education is becoming the minimum qualification and the old B.A.'s are undergoing courses at extension centres, summer sessions and in full day time post-graduate University colleges to secure the master's degree. About ten per cent. of the staff is already holding the doctor's degree. It is quite likely that a good proportion will be Ph. D.'s ere long.

WHAT I SAW IN SOVIET RUSSIA IN SUMMER LAST.

By MR. R. S. GUPTA, B.A., LL.B. (ALL.), DIP. ED. (BRIS.)

Agra.

(Continued from page 694).

II. CONCERNING WOMEN.

Russian women have attained a more complete equality with men, legally, economically, socially, and in that unconscious public opinion that counts for so much, than the women of any other country in the world. All careers are open to them; one finds women in the highest executive positions, women working as navires on the roads, girls training side by side with boys in engineering shops. There is really equal pay for equal work, and it is interesting that in the first Worker's State the feminist view has so far triumphed over the traditional labour view that there is probably less protective legislation for women in Russia than in any other country with a labour code worth mentioning.

Equality has not been won without a struggle. I visited a large textile factory employing 10000 hands. "The President of the Factory Committee is a woman," I was told. "The men used to laugh at her but now she is respected by everyone." I heard of a village where all the members of the local Soviet were women. "The men elected them for a joke, just to prove they couldn't do the work," they told me, "but they did it so well that now even the men prefer to elect women." But the women have been enormously helped by the standard of values that the Revolution brought in Russia. This change centred round the idea of property. The possession of property ceased to have any social merit; rather the contrary.

And with the abolition of the property standard of value the possessive spirit itself

tended to withdraw into obscurity, at least so far as the legal and public expression of it was concerned. Hence women's position, which has always been so hopelessly mixed up with property questions, came to be restated, so to speak, by the Soviet laws without this age-long complication. Women have been truly emancipated in the sense that for the first time in history they are being regarded and legislated for simply as human beings and not as individual possessions.

Not that the position of women in Russia is by any means settled—very far from it. Women themselves have as yet hardly formulated their own ideas as to what they want their relation to be towards home, children and husband. At present, while women are filled with the newly won sense of freedom, and all the forces of society are thrown into a colossal effort at economic reconstruction, the home takes a decidedly secondary place. But whether, when economic compulsion ceases, women who really enjoy a position of perfect equality with men will choose to go out to work, or to stay at home and look after their children, is one of the most interesting questions of the future, not for Russia only, but for the world.

It is very noticeably the present ideal of the Russian working women, in contrast to that of the west, that all women, married or single (and as one of them said to me, "Everybody is married in Russia"), should take their part in industrial life and many of the social institutions which are increasing

so rapidly—creches, kindergartens and play-grounds, public-dining rooms, and the like—are definitely intended to make this easier. But it would be quite a mistake to regard this as implying any indifference to the children's welfare, or lack of natural affection. Children may be said to hold a position in Russian life that they hold nowhere else, they are the very centre round which the social economic life of the community revolves; and the motive for the many children's institutions is quite as much the mothers' belief that the children are rather better done by in these than at home as they wish to gain for themselves relief from home ties.

I came across this view many times. I visited a very interesting little village community which is carried on entirely on a communal basis; the people live in communal houses; the land is held and worked in common and the profits go to a common pool, each member receiving a fixed allowance for personal requirements; the children are brought up in a communal home where they live entirely. This settlement had been founded after the Revolution by some Russians returned from America, who had pooled resources to try and build up a model farm with scientific methods. Many of them had found the life too hard and returned to America but the surrounding peasants are now entering the community in ever-increasing numbers. I tried to ascertain what was the inducement, for none was apparent. The members, like the rest of the peasants, were excessively poor. I found that it was the women who persuaded their husbands to join, and their reasons were two: first that it was better for the children, because in the home they were under the care of trained people and had material and 'cultural'

advantages which their own homes could not give; and second that the division of labour possible under a communal system meant a certain amount of leisure for the women themselves.

This is mentioned as illustrating the mothers' own point of view. On the other hand it is interesting to find that official policy is beginning to favour home rather than institutional life for children; and while creches, kindergartens, and other establishments, where the children can be looked after by day, are greatly increasing, the resident homes provided for orphan or deserted children are being gradually replaced by a boarding-out system under the supervision of the local health authority. The number of boarded-out orphans increased, according to figures given to me, from 156 in 1927 to 2,167 in 1928.

Both parents, whether married, unmarried or divorced, are equally responsible by Soviet law for the maintenance of their children according to their respective means, until the child is of age (18 years). There is no such thing in Russia as an illegitimate child. All children are recognised as legitimate and have the same right and status, whatever be the relation of their parents to one another. Here again one feels the effect of the disappearance of the property standard, for it is the property view of women and children and the laws of inheritance that have combined, in other countries, to fix on a child born of unmarried parents a stigma essentially unjust, which in Russia has been wholly swept away.

This attitude towards children has naturally had very far-reaching effects on women also. Where every child is equally honoured, no

kind of dishonour can attach to bringing a child into the world. It is not quite easy to convey the Russian outlook because elsewhere traditional morality so confounds the fact with the occasion of motherhood that even the most unconventional do not really judge them apart. In Russia, however, this disjunction is complete. Public opinion does not even think of asking whether a woman who bears a child is married or unmarried. Motherhood is honoured for itself, and no woman is allowed to feel ashamed of being a mother.

The question of family limitation is very important in Russia, and I had opportunities of discussing it both with typical women's leaders and with public health officers. The women, as elsewhere, were emphatic as to the right of every mother to be able to determine the size of her family, and official policy supports the women's claim. As Russia does not regard her children as future war material, officials that I saw frankly admitted that the population is increasing too fast and that from this point of view, limitation is desirable under present conditions. The measures adopted, however, have been introduced principally for health reasons, to prevent recourse to quack and injurious methods.

By a law of 1922 amended in 1928 abortion within the first three months of pregnancy was legalised if performed by a properly qualified and recognised doctor in a public institution. Operations performed in secret or by unqualified people remain illegal. Although illegal abortion still continues, official figures while for obvious reasons incapable of recording its extent show that the complications arising from abortion are decreasing.

Preventive methods are being carefully studied and are now beginning to be applied. Birth control instruction is given in all maternity centres once a week, and in Moscow there are now seven centres where daily advice is given. The policy of the Government, I was told, is not to encourage preventive measures but to teach women who want to use them the best methods, the first object being again to eliminate the use of injurious means. As there is a state monopoly of all chemists' shops, only appliances approved by the Commissariat of Health are sold, and every woman receives a prescription at the maternity centre to ensure her obtaining the most suitable, though they can also be bought without prescription. The effects from the health point of view are being specially studied by the Scientific Institute for the Protection of Mothers and Children in Moscow, an exceedingly interesting institution connected with the Commissariat of Health, where all matters affecting the physical and mental conditions of mothers and children are studied, and doctors and others specialising in child welfare are trained. As these measures have been in operation for less than two years few conclusions can yet be drawn but I was told that the results so far were very satisfactory. Should State control succeed in affording comprehensive and accurate statistics, these researches should prove of great value.

One here again receives the impression of instability and transition. Yet this instability is inevitable. Russians are openly and frankly engaged in experiments that other peoples are making more or less secretly and ashamedly. The great difference is that while most Governments wash their hands of any responsibility for such experiments or even

try to suppress them, in Russia with the amazing courage they bring to bear on all their vast and intricate problems, the Government is facing the difficulties, watching, studying and trying to guide the working out of the new way of life in the relations of men and women.

Russia is facing up to problems, including that of sex, with an amazing courage. Her Government, aware that the scope of these problems is both vast and intricate, is conscientiously set on working out a new way founded on common sense. It may even be argued that upon this basis the sex problem is of comparatively obvious solution. What her Government fails to understand is that other peoples are disinclined to analyses of so fundamental a nature. In this appears the extreme antagonism of what is popularly termed revolution and evolution.

It is pertinent to ask whether both these may not indeed cloak other and more scientific distinctions. What if within revolution be contained the actual essence of the growth that the evolutionary theory postulates.

12.

Ever since the first day I came into Russia I had been trying to find out the facts about the laws of divorce and marriage; even more than that I had been trying to get at the Russian view point on them.

It is a simple thing to get married in Russia, and just as simple to get divorced. For the former one has to go before a Justice of the Peace and sign his book. If a man wants to have the church wedding no one will seriously prevent him, but it is no longer part of the legal marriage. If you want to be a common law wife no one will stop you either.

But the custom attending a divorce shocked me very much. If at any time a few days after the marriage, one or other of the parties wanted to be divorced, all that was necessary was that either he or she should go before another official and declare the wish. Few questions are asked. Are there children? Which name—married or maiden—does the wife wish to use? The record is made accordingly, the paper of divorce given and there, if there are no children, the matter ends. Under the new law no divorce is denied, even though only one of the parties asks for it.

But if there are children a very different situation arises. Before the divorce will be granted, one of the parents must agree to take the children. Human nature being the same in Russia as elsewhere, this is usually the mother. Then the father must pay to her for the support of the child or children not less than one-third of his income if there is but one child, and up to one-half of it if there are more than one. More than half he will not have to pay no matter how many ex-wives and children he may have. He must go on until the children reach the age of 18 years so that the divorced man has a pretty serious charge upon his income.

One of the first people with whom I discussed this law was the proprietor of the hotel—a young Russian Jew who was also an ardent Communist. He was vehement in his opposition and graphic in his phrases.

"If I do not like my wife, I say to her, good-bye, you can go. That is all right; but if I have a child, I must pay, pay, pay to that wife till the child is 18. You call that a fair law. I don't."

'Perhaps you could run away to India' I suggested.

"Oh! be quiet, be quiet," he said, "wherever I go they could find me. If I did not pay willingly they will order that the child's share of my wages be paid to its mother."

"Isn't possible to conceal the amount of your income?" I asked.

"It isn't safe to try," was the reply, "for if the mother suspects it, she could go to the court and explain. Then if the court agreed with her, they would put me in jail for six months and fine me 500 roubles."

Even before I had had an opportunity to discuss these divorce conditions with any Russian woman, I had begun to think that there were many who did not resent them. These Moscow women have a great air of self-reliance and independence. They gave me the impression that their world is not unpleasant to them. One day I had a conversation with the land-lady. She was gentle of face and voice, a woman of the missionary type, I thought her. With her too I discussed the question of divorce.

"The chief difference between your country and mine," she said, "is that you are hypocrites and we are not." Before I had caught my breath she went on: "You know very well that in your country if a man gets tired of his wife, he in effect could get a new one, but he says nothing about the old. We simply make it possible for him to be honest in the matter."

As she had thus finished with the divorce question I talked of the political rights and opportunities for women under the new regime. Here again she had her word of criticism for my country.

"In Russia they are equal with men, having under the constitution equal rights. They voted in the Union on an equal footing. In factories women elect one in every ten of their number to go to the worker's council which is the first rung of the Soviet hierarchy. Here they work with men being divided into sections for study as their interests lead them. Together men and women elect the delegates to the Soviets of the districts and provinces out of which again the members of the Union Congress of Soviets, the governing body, are chosen. Thus on the surface it would seem that women really have an opportunity to show their ability and win recognition."

Much stress was laid by the land-lady on the necessity of educating women in India. She said that she had heard of Mrs. Sarojini Naidu, Miss Shyam Kumari Nehru as being the most highly educated and enlightened ladies of India at the present moment. Then she spoke of Madame Kolontai who was late Russian Minister to Sweden and Norway but was now appointed Ambassador to Mexico. My land-lady then told me that in many of the country districts there were women who had set aside small plots of vegetables and fruits, using the income from them to buy magazines and distribute them among women who could not afford to subscribe. I visited a factory with my land-lady. Here the married woman worker is occupying a most favoured place. Each factory, where women are employed, has, either for itself or in common with other factories, two institutions for the care of children—a children's house and a kindergarten. The former cares for children from two months up to 3½ years of age, the latter from that age until the eighth year.

To either one of these institutions the mother may bring her children when she goes

to work in the morning and there she may leave them until the close of the factory day.

In the particular textile works which I visited, women worked either the long or the short day. In the latter case the mother could bring her child here at five o'clock in the morning and leave it there until between nine and ten o'clock at night. During these hours the child will be washed and fed, and played with or taught to play as the case may be. It will be put to sleep at the proper hours and taken out into the air for an adequate time. It will not even be wearing out its clothing, for as soon as it enters the institution, its own clothing is taken off and the clothing of the institution is substituted. If it should not be well, it will have expert medical attention. In short the mother need not and does not give a thought to her child during the part of the day that she is off on work and for all this service she will not pay one Kopeck, the factory being obliged to maintain this service.

Surpassing even these provisions are those which come into operation when the woman worker is about to become a mother. During two months before the birth of her child, she toils not but she draws full pay. For eight months after the birth the factory will pay to her nine roubles a month so that she may buy extra milk, and during all that time she will be permitted to leave her work every three hours to go to the children's house to nurse her baby. I actually saw this process going on while I was in the children's house where there were 160 babies. Unfortunately the kindergartens are closed in the summer; so I could not see them.

There has been a beginning made at the works of arranging this same freedom for other

women workers. Clubs, of which there seem to be literally hundreds, are having children's rooms attached to them, so that the women who want to take advantage of the educational facilities offered by the clubs may leave their children in the charge of expert nurses and have a free mind for their studies.

There is another law which represents the extreme of the position now allowed to the women with children. It can be translated by the phrase 'the law of abortion.' Under this law a woman who finds she is to have a child and who thinks for any good reason—those of health, economic position, household arrangement—she has all the children she can care for, may go before a board of three people and tell them her story. If the judgment of the board agrees with that of the prospective mother, she will be sent to an expert surgeon with an order and he will perform that operation which in both the western world and in India would gain for him at least a jail sentence if not more.

As I think over all these advantages which the married woman with children has gained in Russia at present I cannot avoid the conviction that women during the imperialistic days of the Czar must have had an evil time. There also comes persistently into my mind that slowly but surely under the present Russian system the idea of the home as the unit of the State is being broken down. I cannot find anything on which to base a judgment as to whether there is a deliberate intention to do this, but it does seem clear to me that the unit of the Soviet Russia is the child citizen and that to his physical welfare, his education, his grounding in the principles of Leninism, the state is giving its most zealous efforts.

13. RUSSIAN MARRIAGE.

"In our heart of hearts all of us want to get married" said a Moscow girl to me. This is probably true not merely of Russian girls but girls the world over. The boys also, the world over, consider marriage as the supreme culmination of their youthful dreams. Probably the Russian boy is no exception. Yet in Russia there is a declining marriage rate and a rising divorce rate. If marriages in Russia are generally failures this is due to a prevailing sensuality with which the idea of marriage is out of tune. No family can flourish without idealism, mutual concession, and a certain measure of discipline. When people revolt against discipline, against mutual concession, when the demand for freedom and equal rights is urgent, there arises the conception of a marriage from which all sexual instincts are absent. The position in Russia appears to be that companionate marriage is an accepted ideal.

A friend of mine, in Moscow, the son of a leading banker of India, is married to a Russian woman, very much older than himself. Enquiring I found that at the time they married she was 42, and still a spinster. They had met at a restaurant, and he had taken her for an automobile ride and to the park. A few days later she informed him that she was to be a mother. He tried to evade the consequences but on the threat of a declaration of the paternity of the child, a marriage followed. It was described in the press as a romance—"Banker's son 23 marries millinery assistant 42—sequel to automobile ride." My friend eventually found that there was no heir forthcoming, but the contract was not voidable on that score.

I saw the above in the newspaper which my friend had preserved.

This type of marriage is pretty frequent in Russia. When a girl has had a few years of a "good time," when most of her contemporaries are arranging their trousseau, it is not difficult to trap an eligible suitor.

If results are to be the sole criterion very few Russian marriages appear to be marriages of love. According to a modern investigation, women reach the peak of their love affairs earlier than men. With 14 the curve begins bounding upwards. It reaches its greatest height at 18, and the field of greatest activity runs from 16 to 20. Thus the periods of the greatest susceptibility for women and men in this research are separated by a gap of about three years. Women come to the height of their love period three years before men. This is exactly the gap in time that we commonly observe between the physical maturity of women and men. The girl comes of age at 18, the man at 21.

After the peak, the men decline down more slowly than the women just as they have risen more slowly. Only when the peaks of passion and beauty are passed, does the modern Eve turn to marriage for the succour and protection that matrimony can afford. Hence many of the marriages in Russia are made simply as a matter of convenience—in order to inherit property, for social position, or in a spirit of pique. Such marriages are not natural marriages, and are in violation of the right spirit of the law of marriage. "What God hath joined together, let no man put asunder" has small application to such marriages. Its admission would be tantamount to condemnation of the wisdom of God. Marriages contracted in a spirit of lust or of greed, can hardly count amongst those that are made in Heaven.

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XXXVII—109

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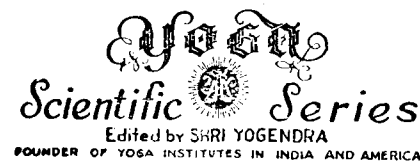
Generally married life in Russia is not the married life conceived of and practised in other parts of the world. In Russia the marriage of fact is different from the marriage of theory. If divorce does not follow, marital relations are governed by the rules of hygiene, separate beds, contraception and the like. The institution of marriage in Russia is no longer the sacrament or the indissoluble union, it is no longer the sublime culmination of affections, no longer the civic duty of race procreation, no longer the ideal of parenthood. The Hindus of India in a sense no doubt permit of polygamy. Yet it is known that polygamy is rarely practised except for reasons of failure of children and heirs to carry forward the family name and family estate. The religion of the great Prophet Mohamed permits of polygamy to prevent promiscuous prostitution, it recognises that

man is not generally a monogamous animal and rather than that he should go to the street and the diseases of the street, it permits him (provided he can be fair in his affection) the right to marry more than one wife.

Home life is an ideal life. The modern conception of equality of men and women in Russia is the greatest destroyer of the institution of matrimony and domestic life. In Russia woman has come more into economic independence than any other country of Europe.

The economic independence of the Russian woman is unique. So far it has demonstrated that such independence is hostile to marriage. If it be essential for justice then the just State must be founded on institutions that are exclusive of the family.

(Summary of more important data and dates of Russian history to the end of the nineteenth century will appear in a subsequent issue).



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INDUSTRIAL AMERICA.

BY MR. S. RADHAKRISHNAN,

Bapatla.

THE unique contributions to the stock of human achievement by the various countries of the world are largely determined by the persistent interactions between man and his environment. The giant strides that America has taken since the Great War in the judicious management of business and industry have brought her to the fore of the leading industrial nations of the world. But for certain causes—striking as well as revealing—that have favoured this post-war industrial development, America would have remained an insignificant corner of the world.

With an area of 3,564,720 sq. miles, though America is twice as big as India in extent, its population is only $\frac{1}{3}$ as large. Being sparsely populated America had to depend for exploiting the natural resources of her country upon European labour, which even at present continues to be a contributive factor to her national prosperity. The import of foreign labour from Europe introduced elements of complexity in the social fabric. Amazing differences in the standards of living, traditions and beliefs between the native American and the foreigner perpetrated a social cleavage and disintegrated the homogeneity of the American nation. Consequently a vigorous programme of 'Americanisation' to assimilate the alien settlers and to preserve in tact American ideals and traditions was set on foot and to lessen the economic problem of an alien population in her national life recourse was had to the American immigration policy. But every measure which America adopted to restrict immigration had its repercussions in the far off countries of Europe

and a profound influence on the nature of American industry itself.

Northern Europe supplies skilled labour and the southern countries unskilled labour. Inasmuch as the American immigration policy favoured the skilled labour of the north, unskilled labour decreased in spite of an increasing demand for it. This scarcity of labour combined with the natural increase in wages compelled the American employer to devise mechanical substitutes for the human agency and means to increase the individual output. So much so mechanisation has been so rapid that America has to-day the most perfect and up-to-date mechanical equipment for even the most complex industrial processes.

Such an extensive use of machinery, from the simplest to the most complex manipulations, results in mass production which, fortunately for America, is easily absorbed by the vast internal market she has within her borders, a parallel to which it is difficult to find in any part of the world. Europe is divided among a number of States, over-anxious about their own autonomy and independence narrowing down all chances of a political or an economic rapprochement. Differences in outlook, want of a common political ideal to hold them together added to cultural and racial disparities impose serious obstacles on the free exchange of goods from one country to another. On the other hand the internal trade of America is based on a free trade policy though in comparison with other countries it is governed by a high tariff.

Such a free exchange of goods unhampered by customs duties and tariff walls confers a decided advantage on American industry which can be localised in centres congenial to its growth.

There is another advantage which America has over the old world. European captains of industry have to cater to the multifarious tastes and requirements of a people in different stages of development, whereas the American businessman has a 'clientele' with uniform tastes and refinements which facilitates standardisation and mass production. This uniformity of tastes has been heightened by scientific methods of advertisement which have a very telling effect on the mass of consumers. The psychologist, the artist and the painter are all consulted and advertisements in America are raised to the level of an art and a science.

Though standardisation from the point of view of production may be an economic proposition it is a serious handicap to the unfoldment of the human personality. To the capitalist who employs a number of workers there can be nothing more desirable than the standardisation of the tastes of the consumer and the producer working at his post like an automaton. It is this aspect of capitalist industrialism where a man is stranded on lifeless routine and his creative personality stifled, that has come up for adverse criticism by men like Mahatma Gandhi. A man at the spinning wheel feels the thrill of creative delight, when he sees the work prospering under his own hands, but one condemned to pierce eye-holes life-long, has nothing to challenge his higher intelligence and so becomes soulless, lifeless and wooden.

Another notable feature of American industry is the management of big industrial

concerns by experts who have had a specialised training in the science of business. The business is not single managed but divided into various departments like the purchasing department, sales department and employment department, etc., which are under the guidance of specialists. In addition to this every business concern has a research bureau which makes a critical study of the prevailing conditions in the market, conducts surveys and offers valuable suggestions for the improvement of industry.

Mass production being ensured the Americans are concentrating their attention on perfecting the means of distribution. Between the producer and the consumer there are so many 'entrepreneurs' or middlemen whose profit and cost of doing business add to the cost the consumer has to pay. In order to reduce to a minimum the cost of distribution resolute attempts are being made. The chain store system has become a successful method to accomplish that end. These stores buy direct from the manufacturer and thus eliminate the middleman's profits. Sometimes the whole country is parcelled out into sales units which do not necessarily coincide with the political or geographical divisions. In every such unit the business has its branch which is concerned with the distribution of its goods.

In years to come American industry and business hold out the promise of further expansion taking all the assistance that recent scientific inventions hold out. Countries which are still at the bottom of industrial development may learn many a lesson from America to their great benefit. At the same time one should not be blind to the limitations of machine production. Where mass production and high wages are the criteria America bears the palm; where variety, art and individuality count America undoubtedly fails.

"KING LEAR."

By MR. R. KRISHNAMURTHI,

Vellipalayam, Negapatam.

(Continued from page 42).

III.

THE UNDERPLOT.

THE underplots fit in with the main plot as easily and naturally as a man's legs slip into his trousers. The delicate fusion of the main story and the subsidiary one is a triumph of artistic skill. Shakespeare is an adept in mixing this salad.

Symmetry of form is a quality of his plays; and his early plays go a great way to illustrate this. The *Merchant of Venice* comes in quite handy. In his later plays, however, this interest is sacrificed to action and character. Even then the story, though not in the minutest details of it, is symmetrical in its barest outline. *King Lear*, in this respect, is a departure. It can be classified among his early plays in so far as this particular quality is concerned. There is a remarkable balance between the main and the subsidiary stories.

The story concerns itself with that of two families; the Lear family and the Gloster family. Gloster is the chief agent from whom the whole of the underplot generates. He is under the employ of the king and thereby establishes the first connection between the main and minor stories. He makes his appearance in the very first scene of the very first Act; and he 'embraces' the occasion to unfold to us (i) his bastard son Edmund and (ii) his legitimate Edgar. He says to Kent: "I have a son, sir, by order of law, some year elder than this, who yet is no dearer in my account; though this knave came saucily into the world before he was

sent for, yet his mother was fair; and the whoreson must be acknowledged....." The way in which Edmund has been advanced into Gloster's favour for no laudable reason, if it be not for his mother's beauty!—is the mainspring of all trouble. Very soon Edmund plots to ruin innocent Edgar and succeeds in his attempt. The simple and unsuspecting Gloster falls a prey to his superior cunning and artifice and acknowledges him in place of Edgar, who finds himself overthrown. He is persecuted and escapes death by a hair's breadth. Meanwhile Curan informs Edmund about the impending war between the Dukes of Cornwall and Albany. Lear and Edgar meet under the most tragic circumstances. There madness meets madness, one a real madness and the other a feigned one but which surpasses all real efforts in that direction. And all these are heightened by thunder, storm and rain. Regan and Cornwall pluck out Gloster's beard and eyes for having tried to save the king. The two sisters entertain a criminal passion for Edmund and this joint amour ends in the destruction of all three. These are some of the main incidents in the play where characters in the main story meet and act with characters in the minor plot.

There are four main themes in the play of *King Lear*. (I here very closely follow the analysis given by Mr. Moulton.) We have (a) a daughter, in the prime of her youth, who receives nothing but harsh words from her father, who finds herself unjustly torn

from her position and whose share of the kingdom is eventually distributed between her sisters, and who, nevertheless, hastens to help her father in his trouble, (b) two unfaithful daughters who receive more than their rightful share of their father's property, and yet outwit each other in their schemes to bring down Lear on his knees, for no apparent reason, (c) a love bastard son who, by his vile intrigues finds it possible to usurp the place of a rightful heir and who notwithstanding embraces every opportunity to do as much harm to the father who injudiciously advanced him to that position of eminence and (d) a lawful son, disinherited by his younger brother, who receives nothing but harm from his father and despite, hastens to help his blinded father in his moments of utter agony.

This is a comprehensive account of the main progress of events in *King Lear*. We can compare (a) with (d) and (b) with (c) or we can contrast (a) and (c) and (b) and (d).

The central idea of the play is "undutifulness to old age." But this idea is coupled with one more supreme and touching, the idea of filial affection portrayed in the characters of Edgar and Cordelia. Shakespeare may say: "I have heard him oft maintain it to be fit that sons at perfect age and fathers declining, the father should be as ward to the son, and the son manage his revenue." But in the whole of the sub-human world this kind of affairs, though actually falls into practice, yet does not bring about with it all the mischief and intrigue that Shakespeare gives us in the play. Humanity has not come to that stage of barbarity in its passage back to the Golden Age. And in this respect, Goneril, Regan and Edmund stand alone!

It is unnecessary to recall here how Lear divides his kingdom and property between Goneril and Regan and how he bestows upon Cordelia a few choice harsh words as her dower. And here it may be noted that he reserves nothing for himself to live upon in his old age. Had he as a prudent and foreseeing monarch reserved a share for himself he would not have had to suffer all this infinite misery. The 'fatal division' is only fatal in this respect. But for this little act of injudiciousness, there would have been no such trouble and he would have lived happily ever afterwards. Goneril and Regan would have had no Lear to torment and to vex. Cordelia would not create a rue over the partition which fact is evidenced by her parting words.

Love well our father ;

To your proffered bosoms I commit him ;

But yet alas, stood I within his grace,

I would prefer him to a better place.

(Better place, meaning in the loyal kingdom of her own heart and her house.)

And the last two lines hint at the course which future events may take.

Gloster, whose unsuspecting nature has been taken an unfair advantage of, falls a prey to the superior intelligence and cunning of his own Edmund, for whom he entertained a fondness and affection. And this last fact is made more impressive when Gloster acknowledges him openly. Edgar is the victim of all this intrigue. He is unable to resist and eventually retires and the next time we meet him it is with a show of feigned madness unsurpassed in its intensity. But before the tragedy has much advanced we see that Lear and Gloster both realise their folly; but repentance comes too late and nothing could be retrieved.

The position of Gloster is different from that of Lear. He is only an instrument in the hands of Edmund and acts according to the dictates of the cunning Edmund. Lear is himself the agent of all trouble and himself sows the seeds of future sorrow and misery.

As soon as Regan and Goneril inherit their father's wealth and when they realise that nothing more could be got from him, Satan finds in them a willing accomplice to bring Lear down on his knees under circumstances wholly unwarranted and mostly unjustifiable. They both treat him ill and the fury of the elements only adds to it. And Edmund is not the less active. He betrays Gloster. The latter hurries to his ruin in the Hovel Scene when Edmund betrays him. Consequently he loses his beard and his eyes and eventually his life too.

"The main plot is a problem and its solution, the underplot is an intrigue and its nemesis. Each is a system of four actions; there is the action initiating the problem

with the three tragedies, which makes up its solution, there is again the action generating the intrigues and the three tragedies which constitute its nemesis. The threefold tragedy of the main plot has its elements exactly analogous, each to each, to the threefold tragedy."

On the whole it appears that an overbearing nature combined with a tendency to precipitate action may always lead to unpleasant consequences, at any rate, if blessed with such heirs or children as Goneril, Regan or Edmund. We often wonder whether money may be the basis of true love. True love springs from the heart and gifts are made by the tongue or by the hand as the case may be. Money and power, when lodged in the hands of the wicked are a source of great and everlasting trouble to the agent and we are really unable to appreciate the blessings which money and power may bring with them when put to use that way. Perhaps Goneril may be able to tell us the secret of it!

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THE MAGIC WAND OF THE TEACHER.

BY MR. P. S. VAIDYANATHASWAMI, B.A., L.T.

Triplicane.

GODDESS Saraswathi, the Hindu symbolic deity of learning, is depicted and described as seated on a white lotus, having four hands, with a book in one hand, a musical instrument in another, a wreath of beads in a third, and a *rod* or *Varadanda* in the fourth. She is pictured as seated in a place of exquisite natural beauty amidst an imposingly solemn and enchanting atmosphere. The whole scene would appear to be fraught with a distinct magical power. The rod referred to can be taken to be but a magic wand. The goddess being, in Hindu faith, but an embodiment of all knowledge, it is but reasonable to say that there is an almost visible association between that kind of magic wand and the teacher who is in other words but a human agent of the goddess, so far as students undergoing education are concerned. Again Queen Mab, the fairy queen in the well known poem of Thomas Hood, is described as having a silver wand in her hand.

She has a little silver wand
And when a good child goes to bed
She waves her wand from right to left

(and the child dreams of very pleasant and wonderful things and feels full of joy)

But when a bad child goes to bed
From left to right she weaves her rings
And then it dreams all through the night
Of only ugly horrid things
* * * * *

The wicked children wake and weep
But good ones find the night as pleasant as the day.

This latter instance throws bright light on the significance of the present title. The possession and exercise of the silver wand

by the fairy queen shows how it is used to encourage the good children and discourage bad children. In other words the encouragement of good qualities and discouragement of vices seem to be the two clear functions of the fairy. From this we gather that a magic wand is associated with deities or persons who are capable of doing good to many. So far, I think, we see the propriety of the title of this essay.

Now let us examine the meaning and implication of the title. The expression 'magic wand' presupposes at the outset, in my opinion, four essentials, namely, first that there should be a possessor of the wand, secondly that the wand should possess some magical power, thirdly that the powers might be exercised in various ways in the interests of people and that the effects produced by such exercise might be as interesting as they would be striking. When we say 'magic wand of the teacher' we rightly seem to imply that the teacher as the possessor of the wand is a sort of magician and is capable of producing certain magical effects in certain cases or on certain persons with certain intelligible results.

How far are we right in saying that a teacher is a magician and he has a magic wand? What do we mean by the magic wand? Is there at all one with the teacher? To answer the question briefly let me first confess that I do not refer to the physical rod or ferula or the cane that is not unoften found with teachers of the orthodox mode of teaching, for it is not so potent of magic as of

tragic effects; nor is it capable of rousing any real interesting effects. I refer only to the moral and invisible rod of teaching that consciously or not, forms an integral part of every teacher's possession. The more a teacher is conscious of that possession, the more he proves his magic; the less conscious, the less successful in proof.

Before finding out in detail what the teacher's magic consists in, let us see how magic comes to play in a teacher's work and what its scope is. We may begin by roughly defining magic. Magic is generally considered an art of producing effects by superhuman means. We also hear of what is called natural magic which is the art of applying natural causes whose operation is secret, to produce surprising effects. It is at any rate clear and undisputed that the two basic features of magic are, firstly, a subtle and unnoticed operation of causes or means, and secondly, a clear and distinct appearance of striking effects. We now have to see how these two magical features come to play in a teacher's work. What is the work of the teacher? A teacher is he who is engaged in imparting education to people, mostly children and boys, and often times adults also. What is education? Education implies the process of making a man something distinctly other than what he was before, namely, in short, making him attain knowledge and use it. It is M. Arnold who says: 'Out of imperfect knowledge spring terror, dissention, danger and disdain. From perfect knowledge which is given by the full revealed Athene come strength and peace. Corresponding to Athene we can assume the Hindu Goddess Saraswathi in a peaceful form—on a peaceful bird, with peaceful surroundings. From this we gather that knowledge to a man means some positive

acquisition and some distinct elimination. The bad or defective qualities of little or imperfect knowledge are eliminated and the good and effective qualities of right or perfect knowledge are acquired. The bad qualities of terror, dissention, danger and disdain above referred to are, it is admitted, characteristic of only persons of no breadth of view or ripeness of culture. In other words what we call superstition is the seedbed of these vices or defects. Superstition is rife only where knowledge is scanty; and knowledge is at a low ebb in circles where blind belief in authority and ignorance of truth prevail. Education always aims at giving knowledge. Knowledge always means the grasp of Truth. As knowledge with its grasp of truth grows, blind faith, otherwise called superstition, shrinks.

It is where superstition is rampant that magic has wide scope and free play. Our forefathers, we understand, lived by attributing wind and rain to supernatural agency. They found a fierce deity in a piece of stone, a tree or a hill. But we to-day, possessed of advanced discoveries of natural sciences, consider all that was wonderful to our ancestors as commonplace. Mr. Clodd remarks in his writings: 'Magic rules the life of the savage while the life of civilized man tends to become more or less completely ruled by a rational conception of law and system.' The savage man never looks at the world as a whole. He could not distinguish between realities and symbols. He regards the world as a sum of things whose relations with one another are accidental. There is abundant room for magic and supernatural agencies in such savage systems of thought. This remains the mental attitude of not merely the old savages but of all the

uneducated, namely all young children and many adults. The savage stage of culture is thus considered not merely a feature of the primitive times of no scientific advancement but of the lives of individuals at all times. The culture epoch theory 'made much of by several historians and philosophers gives full cognition to this belief.

How can we reconcile ourselves to this belief? Is there a savage in every man and if so why and how long? Those who though they come into this world are yet not in close acquaintance with its nature are only as good as those who were born long before the present times. Such persons are invariably the young children of all times. Those adults who in spite of their advanced age are no better than children in knowledge and culture are also to be classified with children. Therefore an educationist who enters upon his life of teaching those who require teaching should start only from this view, namely, that he has to deal with persons to whom magic and supernatural agency have a great appeal to make. In his opinion the child epitomizes the evolution of the race. Just as the human race has got through several stages of civilization and culture, before reaching the full human mental development, so every man from his childhood has to go through certain stages of knowledge before reaching perfect manhood. Welton says: 'The educationist has to guide each pupil from the beginning of knowledge in sense perception, through the second stage of recognition of law into the third stage of all laws finding their reason and explanation in system.' After birth, every one has to be introduced into a perception of the world through his windows of consciousness, has to gather impressions from his experiences, has to understand the ex-

istence of a regular law operating behind all that he sees and has to conclude as to how the various laws working behind the several experiences form one system which is at once their cause and explanation.

Now what does the teacher's magic consist in? Magic, it is accepted on all hands, has the peculiar quality of making new things of old ones. The very expression 'magic' implies some sudden and unconscious change. The results produced are alone visible to us and not the operation of means or process that leads to the same. In short magic represents what scientists hold to be the dynamic aspect of the universe. A teacher too makes new things of old ones. What is it? The material he deals with are the pupils or students. Children are placed under his care with a view to be made better children. They generally come under the sway of teachers—illiterate, ignorant, artless and inexperienced, with no clear individuality or character. The teacher takes upon himself the responsibility of not merely imparting to them knowledge and developing in them a good character, by force of his sympathetic instruction and personal supervision. 'From one end,' as Calderwood says, 'he makes the scholars observant, reflective, well informed and prompt in the use of their faculties and from the other he seeks to make them upright, generous and brave.' Certain dispositions in nature which are detrimental to the formation of good character are to be vanquished by the teacher by means of severity and repression. The final result of a teacher's work thus proves to be beyond doubt, one of complete change of the student or child for the better. The devices adopted by the teacher to produce the striking effects of his work or to cause the distinct changes in his materials

are as invisible as they are decisive. The teacher uses several means to interpret the world of sense, thought and action to the child and make him much more experienced and intelligent than what he was at first.

Such means adopted by the teacher are called methods. Method means orderly procedure or arrangement of details of work. Coleridge says: 'Method implies a progressive transition and it is the meaning of the word in the original. The term cannot therefore be, otherwise than by abuse, applied to a mere dead arrangement containing in itself no principle of progression.' This makes it clear that the teacher by his employment of diverse methods helps in the progress of the pupils. Methods adopted by different teachers cannot but be different if they should be suited to the different kinds of mentality they have to deal with. Thus there is a variety or novelty about the methods. The effects are produced by different teachers on the pupils by their skilful devices to drive home any truth or piece of knowledge into the minds of pupils. How often do we observe boys apparently stupid beam with a new radiance of intelligence all on a sudden as a result of an effective magic touch of instruction from the teacher? Thus a teacher's magic consists in first his creation of a new thing out of an old one and secondly his employment of subtle and invisible devices to produce striking effects.

How far, then, can we regard the teacher a magician in his personal qualities? Let us now have an idea of the chief qualities possessed by an expert magician. Whether he be an ordinary juggler making a mango tree grow out of a seed in five minutes or an educated magician producing flowers and cakes out of sand and sticks, or a hypnotist making his

object feel and talk as if he were in a strange place with strange duties, or a spell-chanter capable of rousing up evil spirits in observed persons and exorcising them, or a spiritualist or necromancer making a wonderful display of his powers on a medium to communicate the thoughts of departed souls, or a witch or wizard using black art to change men into stones and brutes,—a magician at all times and in all places manages to keep a calm countenance, unruffled manner and cheerful attitude. The very charm of his calmness and delicacy casts a spell upon the audience or particular individuals. In spite of the disturbed situations not unoften created by the enthusiasm and surprise of his audience, and the numerous queries of doubt and disdain now and then put to him, he is able to keep his presence of mind and shows a dexterity which is invariably surprising in the discharge of his work. He is also found to possess a keen insight into the minds of spectators and a very sound judgment of their opinions and observations. Either between the hypnotist and his object, or between the spirit expert and his medium in seance rooms or between the juggler and his audience, there is an undeniable degree of insight and judgment evinced. The way in which desired results are produced often to the dismay and wonder of even the most scrutinising and sceptical observers, is really a proof positive of the extraordinary modes of procedure adopted by the magician. It shows how a magician is capable of cleverly adjusting his means to ends and even in case an expected result does not happen, he is able to so adjust his situation that whatever result he produces is approved.

How far does the teacher approximate the magician in the above personal qualities?

Firstly it is not gainsaid that teaching is the most useful sphere for self-command as it is the first requisite to command others. A teacher has to be calm, unruffled and deliberate even amidst very provoking circumstances. He uses his methods with an earnestness and devotion. He is expected to be sane, decisive, stable, honest and righteous in his general attitude to his pupils. He appears in the class with a smile and corrects the students' faults in a generous mood. *Secondly* he does his work of teaching with a presence of mind and dexterity of action. He never forgets his duty and purposes. He is to put his instruction to boys in such a way as to awaken interest in the subject taught. He uses subtle devices in imparting education such as what we call recancy, novelty, frequency and vividness, by way of revising, refreshing, emphasising and vivifying what all he says. *Thirdly* he has a keen insight into the minds of pupils and a clear judgment of their mental content. The predominant qualities of each pupil, good and evil, should be previously noted by the teacher. Tendencies like love of liberty, desire of possession, liberality of mind, on the part of children are to be noticed and encouraged. Several weaknesses like fear, meanness and wilfulness should be checked. *Fourthly* a teacher should have clever adjustment of his means to ends. His chief end being the production of a better type of pupil, his means ought to be suitably varied or adjusted. He has to create the powers of observation, attention, judgment, imagination and memory. He should not have an arbitrary conception of the Three R's—the rod, rule and remembrance but should have a clear grasp of a sane exercise thereof. The purpose of a teacher is to enlarge the

pupil's mass of knowledge, as Barnett says, until it becomes identical with the teacher's. The words, he uses, cannot be too simple or familiar. Pupils should be enticed to learn, assimilate, associate, and apperceive. Good teaching involves the use of countless devices and means, such as very interesting questions, animating conversation, exhilarating revisions, and inspiring talk. Thus a teacher not merely approximates but actually serves as a magician in the possession of his elementary and basic qualities.

Now we turn our attention to consider what the achievements of the teacher's magic are. Referring to England's duty to the illiterate masses, Wordsworth writes in the 'Excursion' that the country should secure the rudiments of letters for all the children whom her soil maintains so that none

However destitute be left to drop
By timely culture unsustained or run
Into wild disorder; or be forced
Through weary life without the aid
Of intellectual implements and tools
A savage horde among the civilized
A servile band among the lordly free.

This brings out clearly that the work of instruction in letters is capable of making a people other than a savage horde and of creating order and independence where there would otherwise be disorder and servility. Thus the first fruit of teaching will be the removal of ignorance. Mere abstention from an ignorant act cannot make a man actively better. So infusing of knowledge is the next achievement for which we should look up to teaching. With the possession of knowledge one's ability to use it cannot be guaranteed. Hence, ability to avail oneself of the knowledge is the next requisite. Self-expression is therefore considered to be the third requisite achievement of teaching. Lastly possession

of knowledge for oneself is not of any real value. True knowledge becomes effective only when it is put to the use of others. Only with constant propagation knowledge makes itself useful. Hence the promotion of usefulness of knowledge is the fourth achievement of the magic of teaching. In other words that one who has attained knowledge can make oneself useful to others is the final glorious result of a teacher's work. In all the good and happy results to be achieved it will be easily seen that the teacher is the centre of attraction. Education presupposes four elements—the pupil, the curriculum, the educational environment and the teacher. The teacher comes quite reasonably bringing up the rear of the elements. He is the background of all educational achievements, just as the pupil forms the object in the foreground. That is, the teacher is the cause of all educational good and the pupil the enjoyer. In other words, the teacher is the bottom as the pupil is the centre of the educational world. The teacher is the life-sharer of the pupil as he stimulates the growth of the pupil and guides it right from the start. Thus what are called the effects of the magic of teaching are but the achievements of the teacher.

What part does the teacher play in the removal of ignorance? We all to-day realise how a teacher should begin his work of instruction to a child or pupil by first realising his mental content. As Dr. Horne says the omega of psychology is but the alpha of pedagogy. The field of the teacher is a developing self-consciousness and his work is the natural forwarding of the growth of consciousness of the pupil. He should begin his work from an acquaintance with the stages of the pupil's mental development,

acknowledgement of the individual differences of his pupils and a full familiarity with the foundations of the curriculum. Psychology helps the teacher in determining how the mind learns and appreciates beauty and how character is formed. Removal of ignorance is found to be based on the opening and training of the senses which are otherwise called the windows of consciousness. Sense perceptions and sense impressions followed by attention, interest, judgment and reasoning result in a clear change in one's mental content. One does not remain the same after several experiences and experiments. Thus, a teacher, by inducing his pupil to take an interest in the outside world, does much to remove his ignorance. In this connection close individual knowledge of the pupil increases the teacher's influence in all respects. Removal of ignorance can best be discerned in two distinct results, namely, first that the pupil will no longer be content with what he hears from others but be curious to know of everything and secondly that he does not attach himself to any blind belief without trying to have it verified from several sources.

Then let us consider how a teacher infuses knowledge into his pupils. Every child is considered to have his mind full of rich and varied notions of some description or other called 'apperceiving mass.' Secondly he has the tendency of attention to any new subject that he comes across. A teacher's province lies in the apperceiving mass of the pupils. He knows the pupil's mental content, namely, what things he knows (though not their names) and makes use of his capital by presenting new things in relation to old. He teaches lessons by analysis, *i.e.*, with clear-

ness, vividness, force and illustration. He

views every lesson as the pupils from their limited experience must view it. He gradually leads them from sense perception to inner perception. This means a cultivation of the powers of memory, attention and judgment. He prepares the student for an intelligent appreciation of his responsibilities when he grows into manhood. *This is the general aim of infusion of knowledge.* The teacher provides pupils with better technical equipment for their particular trade or business. This is the vocational aim of the infusion of knowledge. For this purpose especially while teaching, as is now the case, several illiterate adults with strongly marked emotions and social instincts in them, a teacher requires to be a specially skilled and trained man.

The teacher's third achievement is that he induces self-expression in his pupils. The teacher infuses knowledge into the minds of his pupils and waits for response. The response he expects with patience and obtains with skill. How? The teacher stimulates conception of what he teaches in his pupils' minds. He presents facts singly and in connection with one another, namely both by analysis and synthesis. He associates facts taught with facts already known to the pupils. He kindles the imagination, visual and audible, of the pupils to understand his teaching. For this he should cultivate right mental imagery, should understand the imagination of the pupils and get adjusted to the imaginative outlook that characterises the pupils and recognise the development of the same. He puts striking and suitable questions to his pupils. What is called the dialectic method is of great use in this connection. What we know as the heruistic method is with advantage employed in order

to discover the hidden depths of the mental ocean of the pupils. The main aim of teaching is to keep the minds of pupils in a state of healthy activity. A combination of these several devices added to the teacher's bright, alert and engaging manners and vivacious attitude cannot but result naturally in what we call the self-expression of pupils. Self-expression denotes the capacity of boys to understand things taught and express their impressions freely. This is a capacity of vital significance in the promotion of one's knowledge.

The fourth achievement of teaching is the promotion of the pupils' usefulness. A pupil or youth having had proper education is not expected to be self-sufficient and self-complacent, satisfied within himself with what he knows and is able to express, but with what he is able to do for others. There have been several changing theories about education from the earliest times. Pestalozzi propounded that education ought to be judged not by what a pupil knows but by what he is and does. Even Aristotle in the early days makes reference to varying theories. In its widest sense however it is agreed that education is coeval with life—it begins with the beginning of life and ends with its close. Even within the school education is meant as a course of study to fit a pupil for a profession and in the other extreme as a means of producing a man of the type of mind and breeding associated with culture. A few of the several aims of education are the vocational aim, the knowledge aim, the moral aim and the social aim. Of these the social aim is said to be the only sound aim. The development of a socially efficient individual is said to be the ultimate aim of education. There is a unifying principle in social efficiency. It

means that a man should earn his own living, should attain to a certain standard of conduct (*i.e.*, moral standard). What is done in schools is generally the giving of a spiritual atmosphere to the teaching by inculcation of a sense of service and charity. The school should have a concern for practical and social ends. This function can best be discharged only by the individual virtues of the teacher. "None but the teacher can defend the nation," says Mr. Calderwood, "from the evil consequences of its own system." The true results of teaching are more than can be recognised by School Boards. The after-lives of scholars will reflect honours on the labours of a true teacher. Pupils who attain scholarship by having their instruction from fully capable teachers are marked with fine cultured instincts of service and sacrifice, and are fired with a zeal for serving their less fortunate fellows and trying their level best to raise the general level of culture and learning and civilization of their surroundings. In his "Talks to Students," W. James says that it is bad to pronounce on the meaninglessness of forms of existence other than our own. He preaches also non-interference with other people's peculiar ways of being happy. Ideals and virtues ought to be combined according to Fitz James Stephen. The poor and the rich should look at each other without dread or antipathy. This in short is the basic mental attitude of usefulness. This kind of usefulness to others is promoted in boys by the teacher, by his own personal example, lofty character and methods of teaching. The more one's knowledge is used the more it shines. As an elementary process of developing one's knowledge, the true teacher inculcates in the minds of pupils, the habit of spreading what he knows all around him

so that not only they but all those who come in contact with them may reach a high standard of progress and perfection in life. This serves as our explanation of such movements and institutions as the Brotherhood Society, Social Service Leagues, Servants of India Society, Depressed Classes Mission, and the like.

So far, we have seen how a teacher is responsible for the several magical achievements in the field of human mind. He is quite a magician in so far as he is expected to discharge functions of magical effect. He holds a magic wand in so far as he employs several subtle, suitable and invisible methods to produce the different effects in teaching. He is expected to impart the required education in a masterly way and to inspire the youths with proper ideals. He has the power to shape the ideals of youth almost as he pleases. The promotion of the welfare of the young, who are the future citizens, rests entirely in the hands of the teacher. Whether it is the ancient system of education through Gurukulas or the modern system of education through specially established colleges and schools, the facts agree that the teacher is looked upon as the person from whom knowledge is derived. But the ancient system throws into relief the magical aspects of teaching more distinctly—by the enchanting nature of the secluded centres of learning amidst other active natural scenes, where learning may be imparted—the marvellous degree of self-restraint and obedience and regular discipline to which students were put, and the uncommon spell cast over the whole assembly of sishyas by the appearance of the Guru in their midst and the high gifts of culture and self-reliance with which the students went out of the Gurukulas. Even to-day

under the present system of education are there not sufficient indications of a magical nature in the results achieved? Is it not magical that a dunce is converted into a scholar, that an unscrupulous ragamuffin is refined into a cultured gentleman, that a thief is transformed into a prince, that a vagabond proves to be an organiser, that a sinner attains salvation, that a criminal becomes a dictator and in short that a bad boy changes into a good boy? Is there no magic again in the transformation of stupidity into cleverness, dulness into briskness, insensitiveness to sensibility, vagueness into clearness and meaningless perception into thoughtful observation? So too, we find the magical conversion of inaction into action, despair into hope, grief into joy, and above all ignorance into intelligence. Is there not the said magic in men achieving success under difficulties such as we see in the lives of David Livingstone, Benjamin Franklin, Michael Angelo, and Schiller; or,—to turn to more familiar examples, John Milton, Samuel Johnson and Oliver Goldsmith or in our own country, in the lives of Kabir, Chaitanya, Tegh Bahadur, Guru Govind, Raja Ram Mohun Roy, Keshab Chander Sen,

Swami Dayanand Saraswathi, Isvar Chander Vidyasagar, Swami Ramakrishna Paramahansa, not to mention the gallant array of the noble patriots in the political world, of whom we know so well.

Having learned what we could from the above observations, scattered and flimsy though they be, let us attempt to give the title of this essay, 'The Magic Wand of the Teacher' the full significance that it merits and to verify the same with our own widening future experience. Let me conclude with the following words of Welton:—"Educational method must be an active process on the part of the pupil and must have a definite aim and starting point. Good teaching should form accurate and methodical habits of thoughts. The method of knowledge of children differs from that of scientists in exactness and depth. The child is guided by others and has no grasp of the end while the scientist is familiar with the process and end." It is this process of guiding the child's growth of mind from the known to the unknown, from the indefinite to the definite or from the simple to the complex, by interesting sometimes astonishing means that constitutes the value of the magic wand.

CLASS EXERCISES IN ENGLISH COMPOSITION

WITH AN INTRODUCTION

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COMPULSORY PHYSICAL TRAINING IN SCHOOLS.

BY MR. C. N. RAGHAVACHAR, B.SC.

Kolar.

It is a matter of common knowledge that as a race, the Indians are weaker than other races and they are growing weaker than they were. The average age of an Indian is about twenty-five years, the lowest for any nation of the world, and this average includes the villagers, the mountaineers and other hardy races who contribute a good number of men living beyond seventy. The sight of the nonagenarians even in villages is becoming rare.

In India, the majority of the middle class which is the back-bone of any nation, have not adjusted themselves to the demands of modern civilization, though they are in the thick of it. They have not reformed their food or habits to suit their work or vocation or even the time of occupation. There is a misapplication of democracy in the way one lives. Freedom has been displaced by license in eating, sleeping and other primary and vital functions of the body. This tendency is very much marked among the students, with the result that most of them are not *healthy animals*. It is no wonder if later on, they suffer from dyspepsia, flatulence, consumption and a host of other diseases of the modern day. The increase of restaurants, the most unnatural timings of school hours and the undue stress on the examination as the goal of education have contributed a lot to the degeneracy of our race. 'A healthy mind in a healthy body' is a common adage but the true significance of it is not so commonly realised. The ancient Indians looked on the body as the temple of God and tried to keep

it perfectly clean and healthy by their natural mode of living.

No man can give the best in him to the nation unless he is perfectly healthy and does not leave the world in the prime of life. Death must be a natural process, like the falling of a ripe fruit; but how many treasures of thought, of sound literary production, has not India lost because the owners took little heed of their bodies! The loss to modern India by this must have been stupendous.

The remedy for this national calamity is the training of our young men who are the builders of the future nation, in the proper physical culture sense. Physical culture is work performed with the conscious intention of perfecting the body and mind and increasing one's strength and health. Such a training must essentially be given in the schools. Of late there is a lot of talk about physical culture all over, and the educationists and the public have realised the need of physical culture but no definite achievement is possible unless it is made compulsory in all the schools.

A host of seemingly formidable objections are put forth against the above proposal.

1. These are days of democracy and freedom and when experiments in 'Freedom in Education' are being tried and children are allowed the liberty to learn what they like without being compelled to learn this or that lesson at the stroke of the bell, why should all boys be compelled to undergo physical training?

2. All students are not of the same build and you cannot prescribe a uniform system for all.

3. Some students have functional defects, so they have to be exempted from physical training.

4. The students are having a number of games, like football, hockey, cricket, etc. Compulsory physical culture will displace these healthy team games in the open air.

5. There is also scouting which has provided facilities for the exercise of the body and all may be compelled to join the scout movement.

6. All schools do not have on their staff teachers trained suitably for taking charge of physical culture classes.

These are the usual objections to make physical training compulsory. It is true that children are given freedom to choose what they learn but they have no license not to learn anything. Even in the experimental schools, the child is not entirely free and it can never be free and there is a certain amount of guidance and stipulation. The physical training course can be varied to suit the different temperaments and standards of children. Unless the muscles are trained from the beginning compulsorily, the body will not be developed properly and it cannot acquire the habit of being in good condition. Just as it is necessary to build up good habits like cleanliness, honesty from childhood, the habit of giving work to the entire muscular system at least for thirty minutes a day is also to be cultivated by early compulsory training.

The defective students cannot be exempted from physical training and it is all the more necessary to give them proper training

and remove the defects; only they have to be carefully examined by the doctors and the remedial measures adopted by the coordination of doctors and physical culture experts.

As it stands at present, the number of students that take part in the field games is very small compared with the strength of the school. It is barely forty per cent. These field games are only team games and they have not the advantage of physical culture which can be practised at home and singly and throughout one's life. It is never possible to give sports materials to all the students of a school and it is necessary in the interest of the majority of our students to make physical training compulsory.

Scouting also has touched only a very small percentage of the students and even that has not got the systematic training of the body as its sole objective. Its scope is varied.

The subjects required for all competitive examinations and the training for academical qualifications required for a job are provided for in the school. But curiously enough there is no provision made for physical training, though a good physique and health as certified by a doctor are essentials for entry into most jobs.

Having proved the absolute need for compulsory physical training in schools, the next problem is to suggest the course of training for various grades. The course should not require costly apparatus as India is too poor to afford such a luxury. The exercises should be varied to suit different stages of a boy's growth and must be capable of being done either singly or in groups.

The little boys of the primary section are fond of play; so their bodies should be devel-

oped by play only. In each class, about twenty minutes are to be spent for this. The same kind of exercises or play should not be done on successive days. There should be variety, creating diversion and interest. The best course becomes useless if it is repeated daily in a perfunctory manner. The children may be advised to run or walk briskly to the school in the mornings. (It is supposed that classes are held between 7-30 or 8 to 10-30 A.M.) After about two hours of work, all the children may be taken out into the open and divided according to their physical strength and bodily build and not according to classes as is usually done. This kind of division is very essential in the middle school and higher classes. The children may be taught simple exercises like breathing, Kim's games, Suryanamaskar and others for about ten minutes. This will remove their weariness and refresh them.

The regular physical training course is to be commenced from the third year middle school and between fifteen to twenty minutes have to be devoted for it daily. Group drill, games (Indian that do not require apparatus, like Kokku, Gudigudi, Round race, Leap frog, etc.), Suryanamaskar and rubbing exercises (Prof. Muller's), Breathing exercises and Asanas form a good combination. They have to be arranged to suit the needs of particular schools and pupils.

Drill should form an essential part of physical training, especially in the high school, where the boys are in the adolescent stage. It ought to be done more efficiently and with greater discipline. It is only by drill that our boys can be trained to have better discipline. It is bound to have a better effect if students do not have drill just once or twice a week and nothing else on other days

but if it becomes a part of the regular daily compulsory physical training course. Military or Swedish drill, exercises for chest expansion, neck, thigh, and various muscles, and Asanas—which can be treated as exercises if each is repeated a number of times and as Asanas if the duration of a pose is increased—can be followed in the high school.

First day—Drill (Military or Swedish).

Second day—Exercises—Breathing Exercise, military dips or floor dips, exercises for the neck and biceps, deep knee bending and abdomen exercises.

Third day—Asanas and Suryanamaskar.

Fourth day—Drill.

Fifth day—Exercises for the wrist, forearm, thighs, calf muscles, chest expansion, etc.

Sixth day—Group games.

Suryanamaskar can be included daily along with other exercises except on the drill days. Swimming is a very good exercise and wherever possible, the schools should have swimming clubs and take the boys out to ponds or wells and teach them swimming, which must be considered as a part of the physical culture programme. The abdomen and the skin require more exercise than anything else, especially as a boy grows big. Many students suffer from constipation and its serious effects. It is very essential that the high school students should be taught proper exercises for the abdomen and also proper method of massaging the body. Halasan, leg-circling, Paschimothanasan, Thrikonasana, circle-bending, hip-bending, trunk-twisting and Mayurasana are good for the abdomen.

Every school has on its staff competent men to teach various subjects, like English, History, Geography, Science and Mathema-

tics, etc. Similarly a specialist in physical culture should find a place there; but the modern drill-instructor who is practically a pensioned officer—only drawing a complete salary—is no good. The teacher in charge of physical culture should be a graduate and of the same status as other teachers. In addition to the organisation of physical culture, he should take some classes in general subjects also. That will make the students and other members of the staff feel that physical culture is a part and parcel of the regular work of the school. In these days of retrenchment, it is not possible to employ fresh men specially intended to be in charge of physical culture. Even if a school can afford it, he will not be able to do the whole task by himself. He is to be helped by other members of the staff and the senior students. The schools if they are aided and the department in the case of Government schools, have to depute three or four teachers from each school in summer for training in physical culture. Within a period of three years, there will be a sufficient number of general teachers who can organise physical training in various schools. Even then, about a dozen of the seniormost boys—not by class but by their physical standard—have to be given special training for a month in the beginning of the year and they will have to be the captains, leaders or sergeants of the various physical culture activities. The boys will gladly undertake the work and it gives them extraordinary scope for training in leadership. Such a scheme is actually worked out in the National High School, Bangalore, and the results are appreciated both by the official and the non-official world.

There are many physical culture experts in the west like Bernarr Macfadden, Lionel

Strongfort, Leiderman, etc., and a number of their followers like Professor K. V. Iyer of Bangalore. And there is the Y. M. C. A. which is doing good work in the spread of physical culture. With the help of the above individuals or organizations, it is not difficult to get a number of teachers trained in a suitable form of physical culture; only the managers of schools and the Government should make up their minds to do so.

The purpose of the physical training should be to make every student feel in the words of Macfadden "that weakness is a crime, sickness the penalty of violated health laws and that every man can be a vigorous vital specimen of masculinity if the laws of life are rigidly observed."

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THE TEACHING OF SCIENCE.

BY MR. P. V. SUBBA RAU, B.A. (NAT.)

Peddaradugar.

THE MEANING OF SCIENCE.

THE part played by the subject of science in the matter of the evolution and involution of the whole of animate as well as inanimate humanity from the lowest stages of primitive savagery to comparative civilization giving clues to and leaving room for development and speculation makes every one of us feel its importance in life and the amount of power it wields over men and things in making them rational. With this short preamble let us now attempt to know what science truly is.

The word truly means knowledge though, of late, it has come to mean, according to some advocates of science, a body of organised, accurate knowledge for the purpose of correct and efficient action as contrasted with empirical knowledge. Furthermore, a distinction is made between science (knowledge) and knowledge empirical. The first distinction is that in science the knowledge is, according to its propounder, derived from a wide range of experience of observation while empirical knowledge though derived from experience and relying on experience without due regard to theory is generally not derived from a wide range of experience of observation but is derived from a narrow observation. The second distinction is that the knowledge derived from science is accurate and exact while that of empiricism is mostly inaccurate. The third distinction is that science is comprehensive, that is, it is capable of universal application while empiricism is of limited scope. Lastly the conclusions of science are trustworthy while those of empiricism are precarious.

KINDS OF ACTIVITY DEALING WITH HUMAN LIFE.

As we are primarily human beings credited with a certain amount of intelligence and understanding and as our life therefore is primarily a human life, it is but desirable that we should know the kinds of activity that deal either directly or indirectly with human life. An author on science whose name I cannot at present remember gives out five kinds of activity dealing with human life.

1. Those that directly minister to self-preservation ;
2. Those that by securing the necessities of life indirectly minister to self-preservation ;
3. Those that have for their end the rearing and discipline of offspring ;
4. Those that are involved in the maintenance of proper social and political relations ; and lastly,
5. Those that fill up the leisure part of life devoted to the gratification of tastes and feelings.

In order to lead a full and complete life we should be well-equipped with ideas in all departments of knowledge. We should therefore know all sciences in order to act efficiently.

HOW DOES SCIENCE ARISE ?

Man, if he is really a man, does not want to be idle. He wants to know something and to do something he has a desire to know. Out of a desire or curiosity of man to know what to do arises science. We see

a new thing. We do not know how to act towards it on account of our inherent fear. Hence there is a desire in us to know more about the new thing which enables us to know what exactly is the right thing for us to do. It is here that science steps in and teaches us what to do with everything so that we may continue to live happily on this mother-earth.

THE EARLY STAGES OF SCIENCE.

In the early stages, the teaching of science takes the shape of nature study which creates an interest in the world around us, develops sensory acuteness or precision, that is, trains us to observe closely and accurately, stimulates the mind to its fundamental activities and supplies it with the material from which knowledge of the external world grows, leading later on to thoughtfulness and the exercise of reason upon the materials supplied to the mind, that is, impersonal experiences are made personal by the teacher to the pupils, arouses and feeds the spirit of inquisitiveness and investigation, teaches respect for law and ruthfulness, cultivates the power of expression, develops the individuality of the child, reveals the utilities of natural products and inventions of man's ingenuity (wireless telegraphy, etc.) and which, lastly, helps us to find nature a joy for ever. In later years scientific sciences may have to be taken up for detailed study.

THE METHODS OF TEACHING SCIENCE.

The methods of teaching science are legion, but all these may be reduced to three, namely, (1) the Objective Method, (2) the Illustrative Method, and lastly, (3) the Heuristic Method or the Method of Discovery, which is the best and scientific method.

One thing has to be remembered by every student of science and that is that in all science lessons always follow the Heuristic Method or the Method of Discovery. You may adopt the first method (the Objective Method), but on no account should you follow the second method (the Illustrative Method).

The Objective Method brings the objects before the child. The senses of the child come in contact with these objects and thus these external objects form the rudiments of thought of the child. It is for this reason that we have stated above that this method may be followed though this is by no means the method to be followed in science lessons.

In the Illustrative Method or the Deductive Method we enunciate a principle first and illustrate it by experiment in the laboratory room. The right method of teaching science is to perform an experiment, observe closely, arrive at the results and lastly deduce the principle.

The Heuristic Method (the Method of Discovery) or the Inductive Method has the honour of experimenting and observing closely at first and deducing the principle from the experiments and observations and this is the method recommended in the teaching of science.

GENERAL HINTS FOR SCIENCE STUDY.

We have just now spoken about the methods of teaching science. While faithfully following the most useful method in the class-room let us bear in mind the following hints which have been given to us and which are very useful and highly instructive :—

- (1) Be enthusiastic about your work.
- (2) Select a lesson unit, which is the central or controlling idea around which the teacher

arranges his work in dealing with any important topic. It may require one or more days to work out a lesson unit. The chief aim is that we should have a firm grasp of the central idea in addition to our clear perception of its relations to subordinate topics. This is the basis of successful instruction. The self-activity of the pupils should be made use of.

LESSON UNITS.

Let us take some instances of Lesson Units and let us try and see how we can work them out.

1. *Thermometry*. This is a lesson unit. One day may be devoted for the teaching of *Clinical Thermometers*. Another day may be set apart for *Maximum and Minimum Thermometers*. On the third day we may engage the class in "*The Construction of Thermometers*—How a Thermometer is made, etc." It is impossible to work out a lesson unit of this kind in one class. We have to complete this topic in two or three classes.

2. Similar is the procedure to be adopted in dealing with lesson units such as (1) Fire and the process of Combustion, (2) a Microscope, (3) Artificial Eyes Making, (4) the Earth Worm, and (5) the Heart and Circulation.

3. Another important hint that the teacher of science should bear in mind is that he should always set up an aim for his lessons, and it should point out clearly the road to be travelled in search for truth. Interesting problems should be presented for solution.

4. The topic should be studied first in general so as to determine the facts. It should be observed as a whole and in its parts, and the relation of parts to each other

and to the whole should not be lost sight of inasmuch as the process of study involves analysis (breaking up) and synthesis (bringing together) and presents all facts clearly to the mind in a concrete form giving the teacher a chance to guide his pupils wisely, to stimulate their self-activity to observe, to investigate and to gather facts in addition to the opportunities of giving facts which are beyond the reach and experience of the pupils and suggesting books of reference for study. In science do not have a text-book by your side. Diagrams, pictures, and other illustrative devices may be made use of in the absence of real specimens to bring out scientific facts giving the pupils opportunities to verify their observations and to describe them in words or by drawings, and at the close of each topic the pupils must be made to give a careful and accurate reproduction of knowledge gained by them.

5. A number of different specimens belonging to the same class may be studied before general conclusions can be drawn. It is dangerous to teach general truths first. Avoid haste and state the conclusions in an accurate form and fix them up in your mind. To understand clearly and master the working of the general law, its applications must be studied.

6. Do not attempt a science lesson with a single specimen. Have an abundance of specimens at hand so that each boy may have several to examine and to work with. Neatness and orderliness in the arrangement and distribution of materials give the best opportunity for developing the right habits in children. Always check slovenly manner in the handling and examination of objects.

7. Direct but do not show everything, and do not be over-kind to children. Direct

the observation of pupils by questions which are clear and suggestive. Awake their interest by making them see and discover. The teacher should make use of their self-activity as much as possible with suitable suggestions and occasional timely aid.

8. In making pupils do experiments much forethought is needed to provide them with necessary materials and appliances to make the experiments successful.

9. Science lessons may be connected with Manual Training.

10. Set thoughtful or thought-provoking problems for solution. The problems in most cases should demand close observation and thought.

11. Make use of diagrams and all kinds of graphic illustrations. The diagram is the easiest and the simplest method of presenting the fundamental ideas where the parts are not visible. For instance, in teaching about the "Circulation of Blood" make use of a diagram.

12. Make pupils sketch diagrams and make them explain the diagrams lucidly. This is the best way of learning.

13. Do not have too much apparatus and manufactured material as this is a distinct disadvantage. Only have those things which are indispensable. Thought must be provoked by making pupils prepare simple appliances. The pupils must be made to exercise their imagination in deducing laws and in interpreting natural phenomena.

14. Encourage pupils to keep records of what they do. The record keeps the teacher

and the pupils to a definite and orderly system of work. The power to describe is a test of the grasp of the principle, and is worthy of emphasis.

15. Refer boys to books for extra information and to give unity and correct comprehension of the subject.

16. Connect the lessons in one grade or class with those that precede. Connect old observations and experiences with the new. Opportunities to gather up threads which have been dropped, to refresh old experiences, to suggest comparisons, and to present new ideas should not be dropped.

17. Make cross-connections of nature-study with other subjects. Correlation of nature-study with other subjects gives additional meaning and interest to the lesson. This requires thoughtfulness and many-sidedness in the teacher and it also produces the like qualities in the children.

Having learnt something about the methods of teaching Science and having understood the general principles that should guide our courses of study let us for the present conclude by saying that in the study of science the pupil's primary duty consists in finding out everything for himself—the teacher acting more as a guide where difficulties not possible of solution trouble the pupil rather than as a dictator of notes,—that the pupil should be taught to teach himself, "and that the more the teacher can temper Telling work with Investigation, leaven Information with Inquiry, and combine Learning with Teaching" the better for the teacher and the taught.

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MEDICAL INSPECTION OF PUPILS IN SCHOOLS.

BY MR. S. VAIDYANATHA AYYAR, B.A., L.T.,

Wallajapet.

TO be or not to be is no more the question with the above. It has come to stay and stay it must; and if it should, some improvements are soon to be made.

The scheme has been working for over five years and it is time enough to assess its value and in that light, to introduce the necessary changes.

The current year's inspection would have been over in some schools and be going on in others as the connected statistics—reports and statements should reach the Surgeon-General by this time.

This work as now conducted is somewhat like the annual 'Utsavam,' and rushed through though it takes twenty to twenty-five days distributed through two or three months in a fairly big school. Then there is a lull and the inspection schedules are bundled and shelved in a safe corner to be opened next year or for picking up the schedules of the boys that leave the school for admission into other schools.

The many defects pointed out, remedies recommended and preventive courses suggested in inspection are not heeded by the pupils and parents, teachers and management. In many cases the remarks are repeated year after year. The blame is not to be laid on these. Most parents are either illiterate or indifferent or poor. The teachers have their hands full with their main work. The management in most cases cannot command the means to do the needful. And last, the medical inspector cannot do anything specially for these pupils except as

outsiders attending the hospital or dispensary in their charge.

As things are, there is no tangible good in the scheme though it was brought in after long delay and deliberation with a view to do real good to the thousands of pupils of poor health attending schools. The return in the shape of steady improvement in the health of pupils is not adequate to the money spent. Mr. V. V. Parameswara Ayyar, the veteran educationist, has suggested the abolition of the scheme as an item of saving in the Education Department. His suggestion is a strong plea not so much for its abolition as for its improvement urgently needed in some directions in order to make the scheme serve well the purpose for which it was ushered in and to make it worth having.

That it is already an expensive one is no argument for its abolition or for leaving it in the present incomplete condition. It is like an unfinished house yet occupied. To demolish it is no economy; to have it as it is is false economy.

That improvement is necessary is conceded by all. The Director of Public Instruction in his reply to the address by a District Board said that the Government cannot add to the grant already given under this head and therefore the District Board should make provision for the needed improvement.

The appointment of a fully-timed medical inspector for each complete secondary school would remedy in a large measure the shortcomings in the scheme. He may be

an M.B. B.S., or L.M.S., or even L.M.P., according to the size and status of the school. He will be on the permanent staff in the cadre of senior masters and be in charge of teaching subjects like Physiology, Hygiene, First-aid, etc., besides his main work of inspection. He need not rush through this work. He will have opportunity to see pupils now and then and watch particular cases requiring such observation. He will co-operate with the physical director of the school prescribing suitable physical exercises to particular boys.

A qualified medical man may hesitate to accept a job like this on a modest remuneration. He may therefore be allowed private practice under some conditions, and his clientele will be mostly the pupils and their household. He will then be a valuable and useful link between the school and the home.

A small dispensary with such appliances and drugs as are needed for immediate temporary use and first-aid will be an inevitable adjunct under the above arrangement.

These would entail an additional expenditure but it will be covered by a small addition to the fees now collected from pupils and they would not grudge this, considering the advantages derived.

The benefits of the medical inspection have been well appreciated by the Government of Mysore to make them place it on a better and organised basis. They have proposed to link the school medical inspection with the curative agencies under the Medical Department as otherwise the instructions of the medical inspector will not be carried out, the many ailments detected in pupils will not be treated in the right time and the very object of the inspection will be defeated.

They have therefore directed the medical inspector to get the pupils requiring treatment at one of the hospitals in big cities on Saturdays and Sundays and to refer the cases to the doctor in charge for treatment. In the mofussil, the inspector himself as time and facilities permit should treat the cases. Of course there will be difficulty of pressure of time and want of facilities; but this is only a first step in the direction of placing this on a sound basis as time goes on.

At a time when the retrenching axe is at work in every department, to suggest anything however vital it may be, that would require money however small it may be,—would be mere madness; but there is no such fear here as the means of meeting the expenditure has been stated before.

Mr. A. B. Shetty who among a few, directs his attention to matters educational, especially medical inspection and physical education in schools, will kindly try to place the matter in the Council and see these aspects of education are given their right place.

A highly qualified and keenly interested physical director and a full-timed medical inspector are as essential to the high school staff as specialists in Science, Mathematics, History and Geography.

The Government having been kind enough to make a beginning in these directions by the appointment of the Beasley Committee and introduction and extension of compulsory medical inspection in schools, will sympathetically view these proposals. It is hoped that Mr. Shetty with the knowledge and interest he already has will take up this question at the earliest opportunity.

When so much is being done in countries requiring no external influence in matters like these, how much ought to be done here where the majority of pupils are apathetic to physical exercise and method of keeping fit?

Fortunately there is an awakening now and India is participating in the World Olympics. So "Strike the iron while it is hot" will be the line of action to be taken in this matter.

PARENTS' ASSOCIATIONS.

By MR. A. S. VENKATARAMAN, B.A., L.T.,
Chittoor.

"PLEASE manage somehow" said an anxious parent to a teacher. The latter replied "I wish you had come earlier in the year and oftener too." And this is part of a conversation between the two at the time of the announcement of results in a school. It is a matter of common knowledge that the parents owing to their general indifference or their pre-occupation with their own avocations or engagements, do not visit the schools on any day except it be on the occasion of the hardy annual. Can they be persuaded to become members of an Association of parents? There is already a stir in the dovecot and a body of teachers views the new organisation with alarm. The more enthusiastic among the teachers, however, I mean, the younger generation of them, see a new heaven and a new earth. Optimism and pessimism are not essentially antagonistic and perhaps without either, there can be no ordered progress. It is safe to take up the position embodied in "It is better to have loved and lost, than never to have loved at all."

The more common attitude between the school and the home is that between the two teams in a tug of war. Very often, the two pull in opposite directions and the unfortunate child is in the unenviable position of a rope. Children in schools and students in colleges also, develop two sets of attitudes, cultivate two codes of conduct and set up for themselves two values of life, one for the school, another for the home. The school and the home do not see eye to eye with one another, on many fundamental issues and acute differences

of opinion spring up. There are sharp differences of opinion in various matters. One is, while the teachers insist on the pupil's having many note-books and books, the parents are against it. The methods of teaching are not immune from criticism. There is a school of thought which expresses the dictum, "My school, right or wrong; my teacher, the best teacher, my method, the best method, and myself, the sanest critic." Or again take the question of promotions. A regular crusade against the headmaster and the assistants is begun and a tirade against the system of marking is declared unless it is calculated to make all pass.

THE NEED FOR BETTER UNDERSTANDING.

What is the true conception of parental responsibility? Does it end with sending the children to the school? I fear most of the parents are mere silent spectators sending only careless and occasional glances to the school. They are slow to realise that the narrower life at home becomes the broader life at school and the wider life in the world. There is always a certain shyness and diffidence in the life of a child at home. Care has to be taken to see that the influence at home becomes wholesome. It is only when a well-balanced influence of the home and the hearth is brought to bear on the various forces working from outside in shaping the future of the child, that the true education of the child begins. I am sure that in nine cases out of ten, a child trained by parents alone, however exceptionally endowed, however liberally educated, fails in everything that calls for

enterprise and action and is bound to fail in the complexities of modern social life. It is so patent, so axiomatic, that to dilate on it will amount to pedantry. The role of the teacher is by no means insignificant. He is an important factor in the mental and moral development of the pupils. He creates the environment in the school, examines the tendencies and tastes of pupils and discovers ways and means of equipping them. It is a tragedy that the parents and the teachers never think together, never plan together and, need I add, never act together! An apt objective is scarcely formulated and suitable courses and activities hardly devised to suit the objective. The parents form an important part of the pupils' environment, as their temperaments, habits, tastes and speech among other things, often exercise a powerful influence, for good or bad, on the child's development. Now this too, has to be studied by the teachers. But where are the chances if the parents keep aloof and would shut themselves up in a world of their own, only awakening to a sense of reality, if their children fail in an examination or behave in a disgraceful manner? Educated parents either do not realise their responsibilities or are not inclined to. What shall we say of the illiterate or uneducated parents? The picture becomes complete by reason of the gradual relapse into illiteracy of many a pupil on leaving a school, who in his turn becomes a parent.

ORGANISATION.

How to organise an association to lessen the lack of understanding and to effect an *entente cordiale*? The aims must be to create facilities to parents for frequent visits and to observe the class procedure, if possible. A settled programme and a concerted course

of action may be agreed upon in advance. Formal meetings and addresses may be infrequent but a live touch between the parents and the teachers has to be established. The greater the initiative of the parents, the more assured is the success. The place of the headmaster and the other teachers is only next to the parents. They can help in determining the programme, and wherever necessary, any assistance that is sought, may be rendered. Beyond that, any unsolicited help is apt to engender friction and strife. The success of an Association will also largely depend on the locality and on the rapprochement between the home and the school; while the Association has to be started by the school, the duty of working it to a success is certainly that of the laymen who would form a predominant element in each Association.

SCOPE OF WORK.

The Associations started in some schools have very ambitious schemes. Each week, if not oftener still, meetings are arranged for, either in the school itself or in the villages near by and discussions are held. The real value of such an undertaking we fail to see. There is something of ostentation and some show of work. If there is need to educate the parents in the fundamental purpose of the school and to create in them a tendency to start Associations, then visits and talks to parents are necessary. But they should largely be informal. Once the proper atmosphere is ensured, and the Association is started, the teachers may keep themselves in the back-ground. The results, that we may foresee, are arise in the popularity of the school, a closer adaptation to the needs and tastes of local inhabitants and a respect for, and a confidence in, the teachers' work and profession.

CERTAIN PRACTICAL SUGGESTIONS.

Pyrotechnics apart, the work that is likely to be productive of good results, is informal and unostentatious. Too often we are carried away by glamour and novelty. But they wear off, even before any impressions are formed in our minds. Parents' Associations in the nature of conferences and resolutions are taboo. Informal heart-to-heart talks in small class-room meetings are more suited to our purpose and ends. Among the school staff, sub-committees may be set up to advise the parents about their children and to persuade them to meet at least once a year. The pupils may be divided into batches of 16 or 20 and may be placed in the charge of a teacher who meets them often at school and outside it. He is in a position to look after them and watch their progress, conduct and attendance. A monthly report on them

would be of great value. Besides, an advisory board for each school may be instituted, consisting of three members of the staff, three from the management and three or possibly more from the Parents' Association. It may be depended on to facilitate a better understanding between parents and teachers, to advise the headmaster about the broad outlines of work and to deal with cases of misconduct on the part of pupils. The enlargement of its scope and activities and its potentialities for good and effective work will depend on the personnel, the spirit of service and a sympathetic outlook and understanding of educational problems. I am sure that if educational authorities and Parents' Associations draw nearer together, study and understand each other more intimately, very great reforms in ideals and systems of education can be introduced and a new era of peace and progress will be heralded.

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FIRST VIEW OF EUROPEAN LOGIC BEING AN EXPERIMENT IN INTRODUCING ARISTOTELIAN LOGIC.

BY MR. KRISHNA R. GURUSWAMY REDDIAR, M.A. (CANTAB.)

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ARISTOTLE'S Logic might be introduced thus. Logic is the most interesting of studies for the reason that whereas other studies individually concern themselves with particular 'fields' of thought Logic purports to study thinking itself 'normatively,' that is with a view to determining its being 'right' or 'wrong,' 'valid' or 'invalid,' irrespective of the particular 'field of study' to which it relates. The so-called 'sciences' or departments of knowledge are the applications of thinking to human experiences of the mind and the 'objective' world accessible to the mind, granting the existence of the two entities, in parts. The word 'phenomenon' is used in this context to mean system of presentation objectively to the 'stream of consciousness' or mind.

It has therefore to be assumed that 'mind' exists, or what is of more direct consequence that (somewhat in the Cartesian fashion) thinking is and that the Universe as external to the mind, apprehended by it as phenomena, individually and in systems, exists.

Figuratively this may be crudely presented thus :

Mind or consciousness		World or Universe or system of presentation of objects.
--------------------------	--	---

Mind realising itself in its function as consciousness and self-consciousness—self-consciousness itself being in its turn possibly object of consciousness—and the external

'reality' showing itself or appearing in the interaction between itself and the consciousness, as objects, relations of objects—or things, qualities and relations of things and of qualities and compounds of these.

What has been stated so far above may itself be taken as an instance of the mode of thinking of which the linguistic expression is in the form of words, phrases, combinations and grouping of words, sentences.

It is easy to recognise at least—for convenience—three distinct functionings of the 'mind' or three aspects of consciousness, which in experience,—repeating it—granting the reality of experience, is spoken of as thinking, feeling and willing—that is, that any psychosis or individual experience of consciousness has three aspects, of cognising, affection and willing—And logic's purpose is to enable the determination of thoughts, conscious processes of thinking relatedly in their products, to know if they are 'right' or 'wrong,' 'true' or 'false,' valid or 'invalid.'

'Truth,' therefore, in its largest sense is the quest of logic.

The access to consciousness of the objective world is by reasoning, judging, conceiving, perceiving,—in order of concrete experience, expression to abstraction.

The question therefore is what is judging, reasoning; what is conceiving, what perceiving?

Reasoning may be considered the conscious process which occurs in the 'right' combination of word statements, in groups, as rightly distinguished from 'wrong,' 'true' from 'false;' that is, combination of "judgments."

Judging may be said to be the combination of conceivings or judging is conveniently analysable into conceivings.

Similarly, conceivings are combinations of perceivings or conveniently analysable into perceivings.

For example, 'Logic is a most interesting study' is a judging analysable into the conceivings 'logic' and 'a most interesting study.' Again this paper is white—judging the concepts 'paper' and 'white' given as agreeing in 'is.'

The conceiving 'paper' may be said to have elements of the qualities of paper, which are perceivings, *e.g.* its stape, size, colour, smoothness, which may be taken to be the elemental or primal relations of consciousness to the object—sensing of colour, seeing, sensing of sound, hearing, smell, taste, touch.

'Judgments,' 'Concepts,' 'Percepts' are used for the 'products' of the 'processes' respectively judging, conceiving, perceiving.

Another mode of expressing the distinction is to say that the consciousness of the individual objects like 'this paper' is perceiving while that of paper generally,—not referring to any particular,—is conceiving. Then the sensing of the particular object like 'this thing' or 'that thing' would be sensings whose products are sensations.

Therefore Sensations " + " Sensations = Perceptions of individual things.

From perceptions, the abstraction, conception of the general notion.

Judgments = Conceptions " + " Conceptions and Reasonings = Judgments " + " Judgments. The use of " + " is crude.

Thus granting consciousness and reasoning or argument in its thought aspect, it can be analysed into judgments, concepts, percepts, and sensations—sensations being taken to be elemental and primal.

Logic studies such reasonings directly, its purpose being 'truth,' validity, rightness of thought,—to distinguish true reasoning from fallacious—and this it does irrespective of the 'field of study' the while thinking occurs.

Therefore obviously its supremacy over particular studies, of sciences, or arts.

Psychology interests itself in aspects of consciousness, of thinking, feeling and willing 'positively' or descriptively, that is, concerning itself not so much with the 'validity' of thought in thinking, but with studying it as 'thought' occurs 'naturally,' and also 'additionally'; similarly studying 'feeling,' *e.g.*, pain, pleasure—and emotions, sentiments—and 'willing,' that is, mind's tendency not only to think, but to will, to act, to express itself in motivation and action.

The two other studies traditionally mentioned as included in Philosophy are 'Ethics' or the normative study of conduct and of values, for expression of will, desire, purpose, and metaphysics, and metaphysics including ontology and epistemology—or the study of 'ultimate' realities, like, *e.g.*, 'being,' becoming, existence, the nature of 'truth' itself, the reality of any of experience subjective, that is consciousness, objective, that is, may be 'phenomenal.'

The history of the growth of the study is of supreme interest. Given consciousness and self-consciousness and consciousness, again, in series of 'consciousnesses' and some appearing universe, presenting itself in manifold multiplicity of 'things' and relations, which is the system of world, human beings sometime or other in the course of their existence in this world,—such existence being accidental or designed—happen to wonder, say, may be, gazing at the multitudinous perplexities of the stars in the heaven,—in the appearingly changing vistas of the vicissitudes of nature, surroundings, circumstances and conditions,—of the what and how and why of themselves and things and the whence, and whither and wherefore. This impulse of wondering curiosity which arises, or seems to arise, from the interaction between 'consciousness' and the 'universe' results in an attempt in course of 'time'—which 'time' itself becomes absorbing 'object'—or—'subject'—of study—at systematic knowing or study.

So far as European Logic is concerned, the Ancient Greeks are traditionally mentioned as the originators of this systematical conscious, self-conscious, enquiry.

Among them—preceded by Thales and other cosmologists and anthropologists—three great names are mentioned, among the greatest known to humans—Socrates, Plato, Aristotle, each succeeding being the disciple of each preceding. Aristotle was the founder of the syllogism, Plato his master, and Socrates his.

In Plato's 'Dialogues'—which are the Dialogues of his master Socrates—given to human posterity as 'Immortal Legacy' of gathered Treasure of Thought, Plato has with

characteristic self-suppression, more or less completely abnegating his self, given the great thought of Socrates, who at a time, when, it is said, that Sophists questioned absolute standards of Truth and Goodness, in thought and conduct, ascribing superiority to cleverness of argument, 'Sophistry' over Truth, came to redeem the absolute character of Truth, Goodness and Virtue. The method of Socratic Dialogues with its dialectic questioning of opponents, himself professing ignorance, with characteristic wrong, himself always proving the victorious, wise man,—is famous. The Dialogue describing the death of Socrates by willing self-administration of poison, condemned to so die by the malicious detractions of influential enemies, bittering to the last words of philosophic wisdom, refusing formally offer of an escape from such forced death are among the immortal treasures which the Ancient Greeks have given to human posterity—enhancing the value of human existence and justifying and establishing Philosophy's supremely sovereign genealogy.

Plato was Poet Philosopher—a mind eminently suited for imaginative speculation, which transmitted his master's transcendental ethical mind expressions—Socratic knowledge is Virtue (vice is ignorance)—is famous—into excelling Poetic Philosophy. Plato's divine 'Ideas,' eternal 'Patterns'—of which worldly phenomena are fleeting copies—are typical of his thinking. To transcend the crudities of earthly 'copies' to everlasting verities of heavenly 'pleas' was his purpose.

His pupil, disciple, Aristotle, was in temper 'scientific,' intensely practical. Gifted with a universally comprehensive mind he viewed the universe, systematising phenomena in

their natural presentations, thinking of (Biology—Zoology, Botany) Physics and similarly in other realms of mind, Psychology, Ethics, Politics, Poetics and others.

The obvious necessity for knowing about thinking itself, that is the methodology of Conscious process for ascertainment of truth, and of correctness, argumently resulted in his Logic of the Syllogism, syllogism meaning combining thought for knowledge.

The Aristotelian theory of the syllogism or Deductive Logic as contrasted to Modern and Inductive Logic may thus be stated: Arguments of whatever subjects or objects are analysable into Syllogisms, Syllogisms into Propositions—verbal expressions of 'Judgments'—Propositions into Terms, (corresponding to concepts)—Terms consisting of words and word groups,

Instantia:

Term, Concept	Term, Concept
All men are mortal—proposition, judgment.	
S' Socrates is a man—proposition, judgment.	
∴ Socrates is mortal—proposition, judgment.	

Or in modification, in accordance with the Greek belief in and the beautiful Socratic teaching of the immortality of the souls,

S'' α All beings are immortal.
 β Socrates is a being.
 $\therefore \gamma$ Socrates is immortal.

α is the major premiss, β is the minor premiss and γ is the inference or conclusion 'deduced' from the premises immediately, and therefore Deductive Logic and Mediate Inference. By the mental synthesis of α and β , γ logically necessarily is concluded as a truth, which is a valid inference from the premises.

If in the 'Syllogism' S'' any other inference be drawn, e.g., that $\therefore$ Socrates is wise, or Socrates is a philosopher though these statements may be known to be true of

Socrates, as 'inferences' in the Syllogism, they are invalid, incorrect, wrong, fallacious.

Thus there is a logical necessity due to the felt impelling force of the natural mode of function of thinking, which compels the drawing of the only conclusion reasonably possible.

If this is so of the combination of propositions, yielding inferences, or new truths, of propositions themselves, there are primarily four main kinds.

Incidentally it may be stated—this sort of Syllogism is categorical—unconditional and as distinguished from 'hypothetical' and Disjunctive, (both conditional) which also have reference to the four primary kinds.

The four primary kinds of propositions are:

1. Universal Affirmative — A
2. Universal Negative — E
3. Particular Affirmative — I
4. Particular Negative — O

traditionally symbolised A, E, I, O respectively from the Latin words Affirmo and negO—Latin words these. Latin words and expressions frequently occurring in Logic for the reason that the Latin language as History tells, was the medium of transmission by the cause of the Graco-Roman history—classic times changing to the medaeval, so-called, when the Christian Church, Roman, monastically held sway over knowledge and culture with its Patriotic Theology and Scholasticism, Aristotelian, and then modern so-called renewed classical knowledge to the times of the Modern Peoples by those great cumulative tendencies of changes known as the Renaissance and the Reformation, resultant of the "New Learning."

(To be continued.)

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Dr. K. R. Natarajan of Madras reports to the American Chemical Society that sun curing of tobacco produces the finest results of all the other available methods, there being an improvement in colour, texture and reduction in nicotine content.

This must be of interest to the cigarette manufacturers in particular.

* * * *

ROAD-ASPHALTING.

The road laboratories at Boston have discovered that if the stones in street pavements were previously oiled, the asphalt penetrates the mass of stone and adheres more strongly, thus binding the stones together. The Corporation engineers may take note of this discovery.

* * * *

A NEW NON-CORRODING ALLOY.

Batterinin metal—a new alloy containing copper, aluminium and nickel—is claimed to be an ideal acid-resisting metal for the construction of stills, fractionating columns and such other chemical plants.

* * * *

SOAP vs. GERMS.

Though soap has been found to have remarkable germ killing powers, the typhoid germ is an exception and even carbolic soap is of no use here.

* * * *

A NEW LIGHTING UNIT.

Claude Neon Lights Company has announced the development of a new type of electric illuminating unit which, it is said, uses only half the power required by present incandescent filament bulbs and gives a softer and more uniform light. It is stated that these new low voltage units are ready for application in the industrial and commercial field and that lamps for general household use will be manufactured soon.

* * * *

2. THE A. B. C. OF VITAMINES.

It has been long recognised that a complete diet should consist of carbo-hydrates, fats, proteins, mineral salts and water. But it was only in 1912 that Sir Frederick Gowland Hopkins made known his classical discovery that, to maintain animal life, the diet must contain, in addition to the substances mentioned above and known as dietary essentials, a sufficiency of accessory food factors called vitamins. However, the science of the function of the vitamins was not known then. During the last few years, our expanding knowledge of the vitamins has led with increasing conviction to the conclusion that normal health is only maintained if an ample supply of vitamins is present in the diet. Whenever deficiency arises from one cause or another it becomes necessary to make good the defect by medical intervention.

At the present time, the existence of four or five vitamins is recognised. They are called, for want of complete information, vitamins A, B, C, D. Of these, it appears that the vitamins A, B, and D are not found in large quantities in the common food-stuffs and have therefore to be made up as extra adjuvants to the normal diet.

The effects of vitamin A deficiency is of considerable interest. It has been generally understood that the most important function of this vitamin is to promote growth in the young. Workers in the field of vitamins lay great emphasis on its power to increase resistance to infection. They have rightly called it therefore 'the anti-infective vitamin.' A deficiency intake of vitamin A is a common fault under the conditions of modern civilisation and leads invariably to malnutrition and rickets. Milk, butter and cod-liver oil are rich in this vitamin.

Vitamin B or the anti-neurotine vitamin is as essential to health as the other vitamins and in these days of modern milling and almost exclusive consumption of milled rice and white bread, it is possible that the average daily diet is deficient in this vitamin. Its absence leads to such terrible diseases like beri-beri.

It is desirable that this vitamin should be taken daily. For it cannot be stored in the body in the same way as the fat soluble vitamins A and D. The vitamin B requirement varies not only with different individuals but with the same individual according to conditions.

For example, it bears a simple relation to the amount of food consumed. The greater the intake of ordinary food, the more is the amount of vitamin B necessary. Further the daily requirement of the young and the adolescent per unit of body weight exceeds that of the normal diet.

Amongst the symptoms of vitamin B deficiency, mention should be made of distaste for food, impaired diet, loss of weight, indigestion and head-ache. Under modern conditions of life every normal adult would be all the better for an increased intake of this vitamin. Egg-yolk and whole meal bread abound in it.

Vitamin C, otherwise called anti-scorbutic vitamin, is essential for the prevention of such diseases like scurvy. Oranges, apples, lemons and onions are rich in this vitamin.

Vitamin D is equally necessary as it prevents and cures not only rickets but every condition which arises from faulty calcium metabolism brought about by lack of fat soluble vitamins. A deficiency of this vitamin produces conditions which include among others, faulty development of the teeth and general dental caries. One important factor which determines the production of this vitamin in the fat under the skin is the sunlight which is sufficiently rich in ultra violet light. So that abundant sunlight is as essential for healthy growth as rich food.

* * * *

3. SOME PRACTICAL HOUSEHOLD HINTS.

(i) TO CLEAN SILVER VESSELS.

The best way of cleaning tarnished silver articles is as follows:—

Put into an earthenware pot one or two pieces of zinc or an aluminium sheet 4 inches by 10 inches. Fill the pot $\frac{1}{2}$ to $\frac{2}{3}$ with hot water and add two or three heaping table spoonfuls each of table salt and of bicarbonate of soda. Introduce the tarnished silverware into it. The article will grow bright in a little while.

(ii) A PASTE FOR TIN LABELS.

- | | |
|------------------|-----------|
| 1. Wheat flour | 8 oz. |
| 2. Acacia powder | 1 oz. |
| 3. Glycerine | 2 oz. |
| 4. Oil of cloves | 40 drops. |

Rub 1 and 2 with 8 oz. of water into a smooth paste, strain through cloth and pour into a pint of boiling water and heat till thick. When cold add 3 and 4.

(iii) TO POLISH FURNITURE AND GLASSWARE.

Cover a quart of used tea leaves with a quart of boiling water and leave to stand for an hour. Then strain off the brown liquid. Use with a soft flannel on mirrors, glassware, windows or furniture. Glassware will sparkle like crystal if a tea spoonful of ammonia be added to the water used to wash it subsequently.

(iv) TO RELIEVE FOOT PAINS.

Wash the feet with alum water daily before retiring to bed.

(v) TO RELIEVE INSECT STINGS.

Rub over the sting with raw onion to relieve pain.

(vi) TO REMOVE COFFEE STAINS.

Apply with a flannel the egg-yolk from the outside of the stain to the centre.

(vii) FRENCH POLISH.

1. Linseed oil 1 ounce.
2. Shellac $\frac{1}{4}$ pound.
3. Denatured Spirit 6 ounces.

Shake 2 and 3 till a solution is obtained. Strain through cloth and add one ounce of boiled linseed oil. Shake well. Apply with a brush and rub lightly with a cloth till dry. Repeat the application once or twice to get a good permanent polish.

P. A. N. IYER.

Madras University.

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VI. A TOUR ON THE WEST COAST.

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PALGHAT.

Palghat is really a cluster of many villages so situated as to combine the advantages of town and country. It has a plentiful water-supply and beautiful vegetation. Two small rivers encircle it and in the background are the hills. The houses are solidly built but are of very little architectural value.

Prof. Gaddes, the Town-Planning Expert, was very much struck by the peculiar beauty of the Palghat villages and recommended them as an excellent model for a garden city. There is a good vegetable market held every morning near the Kalpathi Temple.

The people of Palghat are a simple and frugal race. The only industrial concern worth mentioning is the Tile Works at Olavakkode. There is also a very efficient First Grade College now under Government management. The old fort said to have been built by Tippu Sultan has now sunk into the relatively inglorious position of a public office.

CALICUT.

The outlet for the produce of Malabar and the historic meeting place of the East and the West is a big commercial centre for the export of pepper, copra, ginger, and spices; valuable timber like teakwood, rosewood, chorapine (Malabar Mahogany), cheeni, poon, pool, mango, red cedar, param, erool, jackwood, etc., from the forests of Nilambur are rafted down the rivers and stocked at Kallai, a suburb of Calicut, one of the biggest timber depots in India. The family of

the Zamorins, who were the lords of the country around, are living here. Their estates are managed by the Court of Wards and many temples of reputed sanctity and a Second Grade College are maintained from the funds. There is another Second Grade College managed by the Missionaries. The city of garden-houses, in spite of its narrow streets, has many an elegant and neat cottage with cocoanut tops everywhere.

The picturesque Moplah forms an important element in the population. With his strong-built body, his supple frame, his industrious habits and enterprising spirit, there is no wonder that he monopolises the whole volume of trade on the west coast. The wealth of the country is in his hands. Though he has no great business shrewdness there is no dispute about his habits of industry and application.

As a result of the War the timber trade has developed so enormously that more than three or four Saw Mills are now working in full swing. The tile industry has localised itself at Feroke, eight miles from Calicut, where a large business is carried on in the products of the best sort. There is a spinning factory at Thiruvananthapuram which is managed by a Nattukottai Chetty. The Manachira Tank and a garden around which the public offices are located, is also worth visiting. This forms a good reservoir for the supply of pure water to the whole city. But it is a pity that the sanitation of such a premier town is almost neglected and the roads are horribly dirty.

TELLICHERRY.

With its fort built by the East India Company, this town commands a beautiful view of the sea. This place is noted for its trade in copra, pepper, and other hill produce which pour into its market from the hills of Wynad. The East India Company had one of its factories here. Now a few leading European firms have their business-houses. There is a temple at Thiruvengad for the Hindus. The Thiyyas who form the bulk of population have of late built a temple of their own having been debarred from entering other Hindu temples by oppressive social laws. The town has a good Second Grade College, the management of which was recently taken over by the Government.

CANNANORE.

Cannanore contains the fort of St. Angenge built in the eleventh century. Another important building in it is the Central Jail which is one of the biggest in Southern India. Here the Thiyyas form the majority of the Hindu population. The Arakkal House in the old Town owns a large extent of lands. The head of the place is a Moplah chief known as the Arakkal Raja who follows the Marumakka Thayam system. Cannanore was once a big military station for the Malabar District but has now only a small infantry.

Malabar is indeed a historic wonderland which appeals to all those who have an eye for Nature's beauty and a love for things historical. It is perhaps the most interesting region in Southern

India in many respects. Its people are highly intellectual and preserve even to this day the simple customs and manners of our forefathers. The people of the Tamil country have many useful lessons to learn from their simple, unsophisticated brethren of the Malabar regions. Malabar is, above all, the country where Nature puts on her most and best pleasing appearance. Every traveller in these parts is fascinated by its lovable and charming appearance.

Malabar is thus a beautiful land of idyllic felicity on which Nature like a beneficent mother showers her choicest blessings. But there is a poisonous fly in its cup of sweet honey. The economic prosperity of Malabar depends almost entirely upon its Cheruma, Pulli and Ezhuva classes who, however, are obliged by oppressive social laws to lead a miserable and degraded life. The makers of rural prosperity are themselves in perpetual adversity. Their standard of life is the lowest imaginable and there are whole villages where such classes of serfs remain inseparably bound to the land from generation to generation and over all of them is cast the dark and sinister shadow of that curse—untouchability. Unless Malabar cures her social sores and removes the ban of untouchability from her miserable and degraded children her future is not likely to be anything great or glorious. As long as there is not improvement in this respect the beautiful region of the cocoanut and the green rice plant bears underneath the surface but the seeds of social and economic revolt.

LONGMANS'

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NEWS AND NOTES.

CHITTOOR DISTRICT TEACHERS' GUILD.

The Annual Conference of the Chittoor District Teachers' Guild for the year 1931 was held in the premises of the B. Z. Secondary School, Chittoor, on Saturday and Sunday, the 28th and 29th November 1931. It was well attended on both the days and many delegates were present even from the mofussil centres like Pakala, Madanapalle, Chandragiri, Kalahasti.

The Conference began at about 9 A. M. on Saturday with a prayer followed by the Welcome Address of Mr. K. Natesa Ayyar and the Annual Report by Mr. A. S. Venkataraman, the Secretary.

In welcoming the delegates to the Conference, Mr. K. Natesa Ayyar pointed out how Chittoor was now becoming a centre of growing intellectual movements and activities like the Inter-Religious League, the Dt. Sanathana Dharma Sabha, the Students' Library Association, Jeevakarunya Sangam and the Education Week Celebrations, and dwelt at length on a few of the problems facing the Guild at present. On the question of retrenchment, he felt that the proposal of drastic cuts in teaching grants, equipment grants and other grants besides salaries, stipends and subsidies, would tell severely on the progress of education in our Presidency and he advised the District Board President and the managers of aided institutions to wait as early as possible as a deputation on the Honourable Minister for Education to point out to him the hardship and suffering that would have to be faced by the execution of these proposals. About the S.S.L.C. Scheme he pleaded for a considerable lightening of the curricula, in all the new subjects, History Geography and Science by the deletion of the comparatively unimportant portions under each subject or by removing the C. Group subject if possible. He suggested that the useless system of marks entry in the S.S.L.C. books counting neither for eligibility nor for public services could be given up.

He emphasised the need for vernacularisation of studies so that the pupils might have access to more of knowledge and information on all subjects unhindered by the difficulties of a foreign language. He also dwelt at some length on the

importance of making the Guild more representative and more useful by affiliating to it even the Elementary Teachers' Associations of the District and by launching into some practical schemes of value to the public. He concluded the address by wishing the Lord's blessings for the success of the Conference.

Janab Muhamad Sahib Bahadur, M.A., LL.B., the District Educational Officer, who opened the Conference and presided over the morning session, in his introductory remarks, dealt with some of the questions raised in the Welcome Address, explained the various stages through which the S.S.L.C. scheme had to pass before it came to the present stage, pointed out the anomalous position of the C. Group optional in it, emphasised the importance of vernacularisation of studies, advised the spread of boarding schools in preference to day schools for the formation of character of our pupils, and requested the co-operation of everybody with the Government at present in their efforts to balance the budget by retrenchments, even though their schemes might adversely affect many like the training school students.

Miss A. B. Van Doren's lecture on "Social Hygiene", which followed the President's opening address, was a very interesting and instructive one. In a clear and forcible speech she brought home to the minds of the audience the importance at the present day of teaching sex-hygiene to our boys and girls at school not as a separate and isolated subject but in close connection with scientific subjects like biology and zoology and with a deep religious back-ground in every case. Reference was made to the increasing measure of freedom given to the women of India and their frequent appearance in public life in situations wherein they should know how to protect themselves and keep their mind, body and soul perfectly pure. This purity could not be attained unless our boys and girls were trained properly both at home and at school on the lines of the motto "Self knowledge, self reverence and self control and unless each boy was led into chivalrous habits and each girl was taught to look upon her body as a "temple of God". Emphasis, she said, was to be laid on the universal aspect, and the divine and religious aspect of the

actions and principles of reproduction and race propagation in all forms of life, so that the boys and girls might be taught to look upon sex not as a mere pleasure-seeking affair but as a great religious duty requiring the utmost restraint and self-control. It was pointed out how by carefully and scrupulously avoiding all reference to sex matters even at appropriate places, we had done more harm than good to our pupils who often picked up wrong notions of sex from vicious and objectionable sources in secret conversations mostly of obscene nature and from bad novels and romances. She pointed out the dangers involved in such a policy of drift and the duties of parents and teachers in avoiding them by the proper training of our children by presenting to them through the library the best books and pamphlets on the subject of sex hygiene, by equipping themselves suitably by a study of the literature on it, by a presentation to the children at the appropriate ages and forms of the various points of the problem from the positive aspect, and never from the negative aspect, by entering into friendly relations with the pupils on the subject and offering cautious advice and by working out plans of approach to the subject best suited to the genius of the religion and creed of the pupils.

Mr. P. L. Ramanatha Rao in his paper on "Influence of Home on Children" dwelt on the importance of the co-ordination between the home and the school in the matter of the education of our children, and stated how the child, who is educable, could form the best character by the valuable suggestions of the parents, by the ideal behaviour of the teachers, by opportunities offered in such useful movements as the Boys Scout, by frequent visits to each other of the parents and teachers, by the formation and effective functioning of Parent Teachers' Associations, and by such other facts. Stress was laid on the ideals of a home—love, kindness discipline and beauty—and on the lion's share of the responsibility of the home towards the boys and girls. So profound should be the influence of the home that every boy or girl might always say "Home, home, sweet home!"

The President in his concluding remarks endorsed the views of the speaker as regards the importance of social hygiene and its introduction in high schools, as well as of the co-operation between the teacher and the parent in the interests of the pupils. With a vote of

thanks the morning session came to a close at 11. A.M.

In the afternoon in his paper on "Teachers and National Service," Mr. V. Rangasami Ayyangar of Pakala, showed how teachers can serve the country at this juncture by visiting villages and doing some rural reconstruction work, and by encouraging Khaddar—themselves wearing it and thus help the poor by weaning them from the drink habit and by giving them occupation of spinning. Teachers can also speak to the villagers on various topics of real use to them. Adult Education Classes may also be held and news of general importance may also be given. Mr. G. Venkatramayya of Chandragiri, then read a paper on the "Need of the Hour" in which he traced the history of education in India through the several ages and put in a plea that the whole system needs overhauling to give it a national bias, for, as it is, it does not meet the demands of the time. Miss A.B. Van Doren presided.

The second day's proceedings began with a prayer. Janab Muhammad Sahib Bahadur, District Educational Officer, took the chair. The first paper was "The C. Group in the S.S.L.C." by Mr. K. Satyanarayanamurti, B.A., B. Ed. His arguments for the retention of the C. group rested on the greater importance of reason than belief, of practice than theory and on the mental training and character for the nation which were the results produced by independent work in laboratories. He was of the opinion that the syllabus should contain rough notes of lessons. An interesting discussion followed. Mr. R. B. Venkataramana Rao took his stand on the need for a greater surrender value and for a minimum wastage and so declared himself against the retention of the C group since only a low percentage of pupils that were eligible found their way into colleges. Mr. K. Natesa Iyer raised certain main issues, whether the S. S. L. C. syllabus was heavy, how it could be lightened, by the abolition of C group or the omissions of some portions of the A group subjects, was the C group to be compulsory or optional, what were the possible 'cuts' in A group subjects and if there should be an examination in the three forms. Mr. M. Sitarama Rao pleaded for the abolition of the C group, for deletion of portions in A Science and History and for the complete retention of the present syllabus in Geography. Mr. A. S. Venkataraman while favouring the abolition of

the C group suggested that the laboratories might be used for practical work in A Science, was for elevating A Science to the level and dignity of a C group subject for purposes of practical work. If need be, a choice in A Science subjects may be allowed. He was strongly of the opinion that the S.S.L.C. examination should cover the V and VI form portions alone. Mr. V. Ramakrishna Sastri declared himself in favour of the abolition of C group and for examination only in V and VI form portions, in which case he suggested that in IV form, British period in Indian History might be finished and the other two periods in the two higher forms, and the portion up to 1485 may be done in the IV Form, and Mr. P. K. Rama Iyengar was for the separation of Geography as apart from the Histories. The Dist. Educational Officer winding up, held that the 'C' Science subject had its own cultural advantage and value. He could not accept the suggestion to make the 'A' Science practical for it was not practical politics in many schools. He laid stress on physical education and held also that history done piece-meal would be no use. The whole discussion lasted over an hour and a half.

With a voted of thanks by the Secretary, the session terminated.

In the afternoon a business meeting was held, Mr. J. Daniel presiding, and a number of resolutions was passed and the office-bearers also were elected for the year. Next a paper on "Dilemma in Education" was read by Mr. P. B. Krishnasawmy. He raised a series of questions each of which was a dilemma. While other professions filled by persons with similar qualifications were better and more hopeful and more prosperous the teaching profession alone was otherwise; the profession was not united. History was not properly taught. The old type of examination could be changed. Composition could be better done. Mathematics could be more practical. Discipline was to be based on love or punishment or what? The District Educational Officer agreed with what the essayist said and hinted that references to personalities could be omitted. At this stage, he left, nominating Mr. M. Sitarama Rao to the chair. A vote of thanks was proposed by the Secretary.

The last paper was on 'The Decadent School Boy' by Mr. S. T. Ramaswamy Iyer. The

decadence was mental, moral and physical. Greater attention to environment was a cause, if not the cause. He favoured a comprehensive scheme of physical training, the introduction of Dalton even in a modified form and the reintroduction of the Middle school examination. Two points that came up for discussion were the adaptability of the Dalton and the vernacular medium and on opposite sides were ranged Messrs. Natesa Iyer and A. S. Venkataraman. With a few remarks from the chair and with a vote of thanks to Messrs. C. Coomaraswamy Naidu & Sons for the show room and to the delegates, the session ended at 7 P.M. Representatives from important centres in the District attended and the Conference was a success.

RESOLUTIONS MOVED AT THE GUILD CONFERENCE.

1. This meeting places on record its deep sense of sorrow at the demise of Messrs. C. T. Parthasarathy Mudaliar and P. T. Srinivasa Iyengar, both of whom were distinguished scholars and veteran educationists.
2. This Guild requests the President, District Board, and members of the Board to extend to Government servants on transfer on public grounds in the matter of payment of school fees on admission into a fresh school in the middle of the term.
3. This Guild requests the cooperation of the managements of all schools, in consultation with the District Educational Officer to arrange for Refresher Courses in Ele. Science and Geography.
4. This Guild desires to impress on the authorities concerned the need for financial assistance for the Scout Troops attached to the schools either from the games fund or from general funds to carry on the work without let or hindrance.
5. This Guild requests the S.S.L.C. Board that a copy of instructions to Assistant Examiners in the S.S.L.C. Examination be supplied to each high school in the Presidency as that would enable the teachers to train the pupils on proper lines.
6. This Guild, while thanking the S.S.L.C. Board for reducing the portion in Geography and A Science under A. Group for the examination of 1932, feels that the portions in A History are far too much and ought to be reduced for the examination of 1932.

7. This Guild feels alarmed to note that stipends to pupils in training schools are to be reduced and respectfully and strongly protests against such moves on the part of the Government.

8. This Guild is of opinion that retrenchment in the Education Department is inadvisable in that any scheme is bound to affect adversely the already underpaid profession.

9. This Guild is of the considered opinion that some of the text-books prescribed, especially in C. Group History of England are too high for the standard and more simple and suitable books should be prescribed.

10. This Guild requests every school in the District to revive its Teachers' Association and actively work it and strengthen the hands of the Guild by (a) affiliating it to the Guild and sending its affiliation fee regularly and (b) holding regular meetings and communicating the proceedings to the Guild and (c) sending its representative to the meetings of the Guild.

11. This Guild is of the considered opinion that the present S.S.L.C. curriculum is too heavy and that it should be lightened by the removal of the compulsory C. Group and of Botany and Zoology from A Group Science.

12. This Guild requests the S.S.L.C. Board to revise carefully the A. Group History syllabus with a view to make it more complete and comprehensive.

13. This Guild is of opinion that only the portions covered in the Fifth and Sixth Forms in History, Geography and Elem. Science should be prescribed for the Public Examinations and that the syllabus in these subjects should be properly defined for the three forms as that the portions studied in the Fourth Form may be excluded for the Examination, and yet remain in the syllabus, without spoiling the wholeness of it.

14. This Guild recommends that two separate papers be set for the Public Examination, one for Geography and the other for the two Histories together under Group A.

15. This Guild requests the Government to extend to teachers in aided schools the benefit in the G. O. enabling the Municipal and Local Board employees to pay their Insurance premia from their Provident Fund amount.

THE RAMNAD DISTRICT TEACHERS' GUILD.

SECOND CONFERENCE, 1931-32.

The Second Conference of the Ramnad District Teachers' Guild met in Ramnad on Saturday, the 14th of November 1931, under the presidency of Mr. N. Chakravarti Ayyangar, B.A., L.T., the President of the Guild. Representatives from eight centres attended the meeting and amongst others present was Mr. G. Damodara Mudaliar, B.A., L.T., District Educational officer, Ramnad.

The Conference began with a speech from Mr. T. S. Veeraraghavachariar, M. A., L. T., who welcomed the delegates on behalf of the Teachers' Association, Rajah's High School, Ramnad. It was followed by a lecture on "Measurement of Achievement" by Mr. S. P. Pandyan, B. A., L. T., (Virudhunagar) and recitals from Shakespeare by Mr. S. Dandapani Iyer, B.A., L. T., (Sattur), Secretary of the Guild, both of which were highly appreciated.

The following resolutions were adopted by the Guild unanimously after a fair discussion of each of them :—

RESOLUTIONS.

1. This Guild requests the Government that at least 30 per cent. of the Inspectorate be recruited from the senior teachers of non-Government Secondary Schools.
2. This Guild requests the S. S. L. C. Board that each school be supplied with copies of Instructions given by the Chief Examiners in the various subjects to their Assistants in connection with the S. S. L. C. Public Examination.
3. This Guild requests that, in the constitution of the Ramnad District Secondary Education Board.
 - (a) Four seats be allotted to teachers, two to represent the headmasters and two the assistant masters;
 - (b) The electorate be a joint one with a view to avoid the invidious distinction now made as between headmasters and assistant masters who are members of the same profession;
 - (c) Real and additional powers be given to this enlarged Board, such as arbitration of differences that may arise between teachers and managers.

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REVIEWS AND NOTICES.

**ADVANCED CALCULUS—A SEQUEL TO AN
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This treatise by the late Professor Gibson is a sequel to his Elementary Treatise on the Calculus which has a reputation as a rigorous, systematic, elementary presentation of the machinery and the applications of the Calculus, and which is widely used to-day in Indian colleges, both by Pass and Honours students of Mathematics.

The curriculum in the Calculus for the higher classes in the Colleges has undergone in recent times a great modification on account of the modern tendency towards rigorous treatment of principles. To take a typical Indian University, like the University of Madras, the difference of equipment in the Calculus between the old M.A., and the modern Honours graduate is considerable, and the comparison is not in all respects to the advantage of the latter. The old M.A. was not disciplined in the theory of limits, and was not generally concerned at questions of existence; he had the habit of operating with power-series in a loose manner, and would usually have been led into error where implicit functions, questions of convergence and continuity were involved. The Honours graduate on the other hand is taught the general concept of function, and picks up to some extent a knowledge of the principles and processes of analysis as logically founded on the concept of real number. But to make up for this, the old M.A. was very much more conversant with extended applications of the Calculus to various branches of Geometry. He followed text-books like Edwards' Differential Calculus, Williamson's Calculus, Carr's Synopsis, which while thoroughly unsatisfactory from the point of view of the principles of the subject, were

very rich in interesting and elegant applications to other branches of Mathematics. He developed in consequence, quickness and ability to deal with new mathematical situations with the tools of the Calculus. The curriculum of the Honours graduate on the other hand stresses on the logical development of the subject, and has therefore to restrict itself considerably in the matter of applications. One often hears teachers who belong to the old school complain, that the Honours curriculum is lower in standard than that of the old M.A.; what is behind this complaint is the feeling that the Honours graduate does not develop sufficient imagination to feel at home when faced with problems which call for the application of the Calculus.

Perhaps the best book which attempts to remedy this state of affairs is Gibson's Elementary Treatise on the Calculus. Without departing from its ideal of careful logical treatment, it attempts to restore as much of the traditional applications of the Calculus as would be convenient in a first course, and in addition, supplies an introduction to Fourier series and properties of special functions. Several topics like the complex variable, turning values of functions of several variables, implicit functions, multiple integrals, had of course to be treated sketchily or left out altogether.

The present treatise makes a deeper furrow over the same ground, by extending the scope and elaborating the loose ends of the Elementary treatise. It gives a logically self-contained representation of the subject from a more rigorous view-point, and develops the necessary apparatus for dealing with the excluded applications, from the point of view of the Calculus proper, without trespassing too much on the theory of functions. The first chapter deals with the theory of real number, the second with the theory of limits,

the third and fourth with derivatives and partial derivatives. The next treats implicit functions and Jacobians, proving existence theorems under convenient assumptions, which are sufficient for ordinary applications. The next three chapters deal with infinite series and infinite products (real and complex), and includes reversion of series, Lagrange's expansion theorem and maxima and minima of functions of several variables. The remaining seven chapters deal with the Riemann theory of integration of bounded functions, double and triple integrals, Stokes' and Green's theorems, improper single and double integrals, and applications of the theory to the integration of the series and the Gamma function.

There are numerous examples, and the book is written with the scrupulous care and judgment which one would be led to expect from its predecessor. It would be an excellent book both for study and reference for the Honours students, and would be particularly helpful to those who wish to specialise in higher analysis.

NEW GEOGRAPHY OF THE WORLD BY W. R. KERMACK, B.A., F.R.G.S. PUBLISHED BY W. AND A. K. JOHNSTON, LTD. LOCAL AGENTS: MACMILLAN AND CO. LTD., MADRAS. 292 PAGES. Price Rs. 2-1-0.

The book is intended for use in secondary schools which have a commercial or economic basis where the teaching is in the hands of a Geography specialist. There is an introductory chapter on geographical environment by Dr. James Walker of the Jordanhill Training College, Glasgow. The book commences with an introductory study of the British Isles and leads to a study of the Empire. Europe as being the most complex of geographical studies is reserved for the final part of the book. The Geography of India is dealt with in eleven pages. There are eighty maps and diagrams in the book. The exercises at the

end of each chapter are not only meant to serve as revision exercises but also to stimulate thought. The illustrations suggest new methods of giving practical work to pupils with data available. The book is a neat little volume attractively written. Teachers in our high schools would be benefited by perusing this book, particularly the exercises and diagrams.

DOMESTIC SCIENCE FOR HIGH SCHOOLS IN INDIA, PART II, BY ANN G. STRONG, B.Sc., COLUMBIA HUMPHREY MILFORD, OXFORD UNIVERSITY PRESS Price Rs. 2-8-0.

This is one of the most welcome publications of 1931 for the inculcation of home science in our country. It is most appropriately dedicated "To All Girls of India." The subject-matter is eminently suited to Indian conditions. It is collected with great care and set forth in an efficient manner, illustrated by means of excellent graphs, tabulated statistics and other aids to effective visual and other teaching. The diagrams to illustrate facts in physiology, botany, bacteriology, as much of physics and chemistry as is needed for the study of hygiene, and school sanitation are all very good and well explained. The book is nearly 450 pages, is up-to-date and is priced at Rs. 2-8. The Index at the end of the book is very full and useful.

GERMAN POETRY FOR STUDENTS, CHOSEN BY A. WATSON BAIN, M.A. MACMILLAN AND CO. 1931.

Prepared on the same lines as Mr. Bain's *French Poetry for Students*, this anthology of German poems is intended to introduce the student to German poetry. Elves and goblins, love and spring-time, *Sehnsucht* and *Wanderlust*, nationalism and war, supernaturalism and agreeable extravagance,—these are some of the characteristic notes of German poetry sought to be

illustrated by the specimens in this volume. It is not artistry or verbal refinement (except in some of the works of Goethe) that we associate with the earlier poetry of Germany; it is rather the play of fancy and the expression of elementary emotions stirred by the contact with the romance-haunted aspects of life.

Some of these earlier poems are steeped in the atmosphere of *zauberland*. While Goethe's *Erkönig* and *Der Fischer* fancifully reflect this atmosphere, Bürger's *Lenore* which, we may observe in passing, fascinated Scott and other romanticists of Great Britain, is pervaded by unearthly fantasy and spectral gloom:

"Ha sieh! in Augenblick
Huhu! ein grässlich Wunder!
Des Reiters Koller, Stück für Stück,
Fiel ab wie mürber Zunder.
Zum Schädel ohne Zoph und Schopf,
Zum nackten Schädel ward sein kopf,
Sein Körper zum Gerippe
Mit Stundenglas und Hippe."

To some of these poets, the earth is a garden and a paradise; and life's cup should be quaffed quite:—

"O wunderschön ist Gottes Erde
Und wert, darauf vergnügt zu Sein."

Not that there is not a tinge of melancholy in some who contrast the limitations of man with the privileges of the gods:

Es schwinden, es fallen
Die leidenden Menschen
Blindlings von einer
Stunde zur andern,
Wie Wasser von Klippe
Zu klippe geworfen,
Jahrlang ins Ungewisse hinab.

Life, however, becomes all the more precious to others on this account:

Trinke, küsse! sieh, es ist
Heut Gelegenheit;

Weisst du wo du morgen bist?
Flüchtig ist die Zeit!"

Of poems of nationalism and war, we have a few in this anthology. The older pieces born of the times when the awakening of German nationalism synchronized with the efflorescence of Romanticism are well-known; but among the new ones (reproduced in this book) are two striking pieces inspired by the recent war: *Mutter und kind*, 1914 (by an anonymous writer) and *Brüder* by Lerch.

A significant variation from the usual themes is furnished by Gustav Schuler's *unterdessen* which strikes altogether a unique twentieth century note:

"Schönheit ist Atem. Aber Brot ist Brot.
Und Tau send hungern. Und die Mühlen
mahlen.

Und königstische wissen nichts von Not.
Und tausend beten nachts zu ihren Qualen."

Fourteen German sonnets (including Goethe's famous one on *Natur und kunst*) are given at the end of the book which also contains a few English verse-renderings (some of them by Mr. Bain himself).

Altogether it is a valuable anthology which should serve its purpose excellently well.

AN INTRODUCTION TO CÆSAR—GALLIC WAR, I, BY C. F. C. LETTIS. CAMBRIDGE UNIVERSITY PRESS. 1s. 9d.

Teachers of Latin know that if difficulties of elementary Latin constructions are elided by the beginner, progress is retarded; it would therefore be necessary for teachers to stress some of the elementary principles of Latin construction even at the early period when the pupil is just passing out of the "baby Latin" stage. The present book is aimed at affording help in this direction. Graded extracts from Cæsar's *Gallio War*, I, directly drawing the attention of the pupil to elementary Latin constructions like the ablative absolute, the accusative and infinite, the subjunctive, and the gerund, gerundive and gerundive attraction, are provided as exercises for translation. Practical instructions are furnished regarding the application of rules; and brief notes are provided at the end of each piece. These are very welcome features. Lest-papers and a vocabulary at the end add to the usefulness of the book.

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THE EDUCATIONAL REVIEW.

To those familiar with the rapid advances made in recent years in Europe and America in the utilisation of Broadcasting for educational purposes, it came as a surprise when it was announced, the other day, that far from expanding the present arrangements for Broadcasting in India, it was even proposed to close down the only two available centres at Bombay and Calcutta. In response to the representations made by the public, though largely confined only to the dealers in Broadcasting materials, we are glad to find that the Government of India have resolved upon continuing the present service, though with some modifications. In the case of a country like India whose percentage of illiteracy is so large, the uses of educational Broadcasting cannot be exaggerated. The existence of a single radio set may often mean the education of a whole village, if not in the traditional Three R's, at least in the acquisition of general information of various kinds. We therefore congratulate the Government on this wise decision and we trust that as soon as funds permit, they will go a step further and think of the possibility of making a beginning in the direction of employing Broadcasting for educational purposes.

We have protested from time to time against the loosening of discipline in our educational institutions, the latest instance coming from the Univer-

Broadcasting in India.

Students and Discipline.

sity of Allahabad in spite of the fact, that in point of academic standards, it maintains the highest reputation, at least among the Universities of Northern India. In the vacancy caused by the appointment of Dr. Weir to the Public Service Commission, the University had to appoint a Professor of Law and it proceeded to do so in the usual manner, advertising the appointment in all parts of India and abroad and choosing ultimately Dr. Bagchi, the head of the Law Department of the University of Calcutta. The students of the Law department however, had a grievance that their Reader in Law, Mr. S. C. Chaudhuri, had not been chosen and that his name was not even sent up to the University Council by the Selection Committee. They also objected to certain remarks in the University proceedings regarding the leakage of question papers in Law. The members of the Law Department therefore went on strike and have now gone back to the classes, only on the assurance that their grievances would receive sympathetic consideration. We confess to a sense of surprise that any attempt should be made by the students of a University to dictate to the authorities about the appointment of members to the staff and, what is more audacious, that they should have any voice with regard to the expunging or otherwise of the proceedings of the University Council. We trust that the Vice-Chancellor of the University will exercise his authority in the matter and put down such want of discipline with a strong hand. He is reported to have said at a

recent meeting of the University Court that discipline in educational institutions is essentially different from punishment in law courts and that the students of a University were like the children of the Vice-Chancellor, praiseworthy sentiments with which we are in perfect agreement. But may we point out that children in a family too can be spoiled for want of discipline and here is a glaring example of misconduct requiring serious notice? Indians are looking forward eagerly to the coming of Swarajya, but it will be a poor India indeed, if her young men are not going to be bound by rules of discipline even under provocation. Want of discipline has been the bane of Indian history and our present position of political degradation has also been due to it in no small measure. It therefore behoves every patriotic Indian to apply himself strenuously to the wiping off of this reproach.

We congratulate the Guzerati residents of Madras on their having organised a movement to celebrate the Golden Jubilee of Mr. Ardeskar Kabhardar who has been in Madras for nearly twenty-five years and who has just completed his fiftieth year. Mr. Kabhardar is a well-known Guzerati poet who has found it possible to continue steadily his pursuit of the Muses, in spite of being immersed in such a prosaic occupation as selling cycles and motors. His poems have displayed considerable ability, in conception as well as in execution, and have been prescribed as text-books at

more than one University in India for the highest examinations. We are therefore glad that the Guzerati residents of the city presented him, the other day, with an address and a purse on the occasion of his Golden Jubilee. We wish him many more years of useful service in the cause of Guzerati literature.

The Reception Committee of the All-Asia Educational Conference held at Benares deserve to be congratulated on the bulky report of a thousand pages which they have issued of the proceedings (Indian Press, Allahabad). Besides the Presidential Address of Sir S. Radhakrishnan, the volume is preceded by a valuable survey of the present progress of education in India, by Prof. P. Seshadri, the Chairman of the Executive Committee of the All-India Teachers' Federation, and also contains the numerous papers on educational reform communicated to the Conference. The All-India Teachers' Federation has rightly claimed that its activities are not of a mere Trade Union, as one of its important aims is the advancement of educational theory and practice, with special reference to the peculiar conditions of India. This volume of nearly a thousand pages is perhaps a practical demonstration of this aspect of the Federation's work. Arrangements have also been made for the continuance of this institution, by the holding of periodical regional Conferences for Asia in other parts of the continent. It is understood that Prof. P. Seshadri, who is

also the Director for All-Asia on the Executive Board of the World-Federation of Educational Associations, is already in touch with educational leaders in China and Japan regarding the venue of the Conference to be held in the Far East, but the present disturbed condition of the two countries have prevented practical consideration of the matter at an early date. The President has nominated Sir C. V. Raman on the Standing Committee of the All-Asia Educational Conference. India will not be officially represented at the regional Conference for the West, to be held at Honolulu during the ensuing summer, though the President of the All-India Teachers' Federation has been invited to co-operate in a study of the subject of Western Education under Oriental conditions which is to be a special feature of the Conference.

We are glad that with the final settlement of the headquarters of the Andhra University, it has been possible to embark on some real work of University education. The University authorities were able to inaugurate this July an institution for teaching Honours courses in certain subjects and during the last month, they have been able to take another step forward by laying the foundation stone of the proposed College of Technology. It was also appropriate to the occasion that Sir M. Visweswaraya who was invited to deliver the Convocation Address spoke at considerable length, emphasising wealth-pro-

ducing activities and hoped that the Universities of India might turn a new leaf in their history and think of introducing bread-winning courses in greater measure. While not prepared to grant the proposition that the value of University education should be judged entirely by its capacity to enable a man to earn his livelihood, we feel that there is considerable point in Sir Visweswarayya's address, worthy of the serious attention of the educational authorities. His criticisms of the present educational conditions in India may be summed up in his own words: "My diagnosis is that education in this country, having regard to its enormous population, is pitifully meagre, that it is far below progressive standards, that it is ill-adapted for nation-building and wealth-producing activities and that the Universities which are at the apex have not set a good example in all these respects. The economic future of India is placed in grave peril by the slow progress which mass education is making and the scant attention that is being paid in University circles to the need of industrial and commercial advance. There is no organization charged to deal with these problems, nor is there any visible move to create such an organization." Without intending to subscribe to all the details of opinion expressed in this we are prepared to say that Sir Visweswarayya has given enough food for thought.

In the course of his Convocation Address delivered at the Allahabad University, Sir C. V. Raman put in a strong plea for the advancement of research and rightly protested against the curtailment of grants to intellectual work in the name of retrenchment. Bureaucracies have generally a tendency to lack in imagination and to the hardened officials in charge of the administration of this country, money spent on research does sometimes seem a waste, not capable of any adequate return. Sir C. V. Raman therefore did well in impressing upon the Government the folly of making any reduction in the research activities of Universities and similar bodies. Speaking of the Allahabad University itself and the Committee which has just been appointed by the Government to consider what retrenchment was possible in its annual expenditure, he said graphically that if it was in his power, he would multiply the present grant ten times, without any idea of reduction!

Speaking at the Convocation of the Agra University during the same month, Sir C. V. Raman pleaded for high standards in University education and said it was no use thinking that the function of a University consisted only in the conducting of examinations and in the granting of degrees at the annual Convocation. He was of course right in saying that the real work of a University should be "dominated, moved, impelled by the passion for the pursuit of knowledge in

the abstract. When you do not find the divine produce, when you do not find that continued resistless search for truth, when you do not find all these things, you do not find a University." In view of the constant endeavour, on the part of politicians in various parts of India, to get hold of the Universities and their management, it is not surprising that Sir C. V. Raman should have found it necessary to plead for the exclusion of politicians from the active management of educational institutions. "To-day, India is dominated by politicians," exclaimed Sir C. V. Raman. "I have no quarrel with the politicians. For some of them I have the highest respect, provided they do not try to interfere in academic matters. The great danger to-day and the greatest danger of to-morrow is that the academic pillars and ideals are laid down not by educational and University idealists, but by political and other exigencies. In their way disaster lies. The day when Universities are run, not by your teachers, but by your politicians, will be the day when India will slip down on the road and become a fifth-class power like Roumania and Bulgaria. She will then not be able to rise to the height of Great Britain and Germany. There is no doubt that the India of to-morrow will be created not by ideas preached by politicians, or from the legislative chambers whether they may be on the hill tops or on the plains, but the India of to-morrow will be created, by the spirit of your teachers, by the spirit of your investigators and still more by the spirit of your University students. It is they who will create the India of to-morrow. It pains me to see occasionally to find University Convocations, text-books, syllabuses and exami-

nations being conducted by people who have no idea of what they are doing. As they are said to possess a spirit of self-sacrifice in them, I will ask them to exercise their spirit of self-sacrifice a little more and leave the task of education to the teachers. If they do so, we shall have a healthier tone in educational work. We shall have no difficulty about teachers and others. In fact, it must be for the teachers, through all the circumstances of the case, to decide what they can do. They should be the work and the responsibility of the teacher." We commend these valuable words to all those really interested in fostering University education in this country.

In view of the meagre information usually available in India regarding the Universities in Germany,

Indian Students in Germany.

we have pleasure in bringing to the notice of students in this country the India Institute of Deutsche Academy, Munich, an organisation whose object is to promote cultural and friendly understanding between Germany and India. Here are some hints given by the Association to Indian students wishing to proceed to Germany:

"No Indian should come to Germany without sufficient funds for his maintenance. This is self-understood. However, during the last few months we have received applications from various Indians, who are already in Germany, seeking pecuniary aid and some seeking employment. We wish to make it absolutely clear that there is no opportunity for any foreigner to earn a living in Germany. No foreign student can secure any opportunity for employment. German people are now out of employment and during the coming winter the number may rise to 8,000,000 or more. According to the laws of the land no foreigner can be given an opportunity to get into any gainful occupation which may displace a German worker from his position.

"Although German factories in the past have extended opportunities for practical

training to many Indian students and they are willing to extend the privilege whenever it is possible, yet it is practically impossible for German factories to make any special arrangements for foreign students for practical training which may displace a German worker. In some cases foreign students who pay their own expenses may get the opportunity for practical training. But no Indian student should take it for granted that he will get the opportunity. He must make sure of the possibility of securing the opportunity before leaving India. No Indian student can be given any opportunity unless he knows German well enough to carry on conversation in German and has a good theoretical knowledge on the subject he wishes to master.

"We have received several applications for help from Indian students. We wish to make it clear that Die Deutsche Akademie is not a charitable organization. It has secured several stipends for Indian scholars and has arranged for practical training for others. It hopes to facilitate exchange of professors and students between Germany and India. It has no special fund for aiding Indian students other than those who receive stipends.

"We often receive many letters from Indian students who are undergraduates and wish to secure a degree from a German University within a short time. There is no short-cut for securing a degree in any German University. For a German graduate of High School (Gymnasium) it takes at least eight semesters or four years' study to get a University degree. Let this be fully understood, that every German student who devotes less than four years' study in a University is ineligible for a degree. He must not only finish his studies satisfactorily, but will have to write a thesis in German and pass a difficult oral examination given by professors. These examinations are to test the knowledge of the candidate for a degree.

"An Indian student who has passed his Intermediate Science Examinations may get along as a regular student in a German University, provided he is very diligent. Such a student will require more than four years, sometimes six years, to finish a regular University course. We therefore advise that

Indian students wishing to study in German Universities should have their B.Sc. degree from an Indian University before they take admission into a German University. In fact, we think it to be economical and more practical if Indian students finish their Engineering education or take their M.Sc. degree in Physics and Chemistry, before they come to Germany for higher studies in these branches. Indian medical students should finish their regular studies in Indian Universities and take the M.B. degree before they come to Germany for higher medical training. For beginners in medical studies in German Universities it takes at least six years to complete the course. A medical graduate from Indian Universities can secure the M.D. after four semesters' study and passing the required examination.

"In every case, it must be remembered that it is absolutely necessary for a prospective student to have adequate knowledge of German, so that he will be able to follow lectures in classes which are delivered only in German. Even those who have a working knowledge of German should come at least two months before the beginning of semesters (Winter Semester begins in early November and the Summer Semester begins in early May), so that they will be able to carry on intensive study of the German language from competent German teachers before taking admission to Universities.

"For a foreign student it is essential that he should be well provided with funds to meet his expenses. One wishing to live modestly in Germany requires two hundred to two hundred and fifty marks per month or Rs 150 to Rs. 175. One must also be prepared for extra expenses for clothing, etc.

"Lest there be any misunderstanding we wish to say that German Universities welcome Indian students, whether they be beginners or research scholars. We at the same time think that it is better for India's and Germany's cultural relations, if India sends her most worthy scholars to German Universities. German education stands for efficiency and India's national efficiency can be raised quickly through the efforts of the highest type of Indian scholars willing to

acquire all that is best in Western civilization and its assimilation. We are anxious to promote cultural co-operation between India and Germany, which can be carried out effectively through the co-operation of Indian cultural leaders."

The intimate political association of India with Britain has naturally led to the migration of the bulk of Indian students going abroad to that part of the world, but it is desirable to recognise that Western literature and science is not confined to it and there is no reason why we should not benefit immensely by going to other countries of Europe also in larger number.

Constant self-examination of standards is essential to the progress of institutions as well as individuals and

The Mysore University. we are therefore quite pleased that the Mysore University has been worried in recent weeks about the abnormal percentage of failures at the last Matriculation examination. The report of a Committee appointed to consider the matter was communicated to the last meeting of the Senate, the suggestions made to remedy the affairs being:

(1) the institution of a further test of suitability (conducted by the University) for admission to the University courses—this test to consist of two papers, one in English grammar and composition and the other in general knowledge; (2) a revision of the Intermediate courses of studies and scheme of examination so as to lighten the course in subjects in which it is felt to bear heavily and to make the examination in English a more satisfactory test as suggested in the preceding section; and (3) the desirability that the University should have its own Matriculation examination in place of the S.S.L.C. examination even with the latter supplemented as proposed above.

It is difficult for us to judge the value of these findings, but we trust the work of the paper-setters and examiners con-

cerned has also been scrutinised from this stand-point and the University Council has satisfied itself that it is not open to improvement. In any well-ordered University the ideal to be cherished should be of course that conditions of admission and teaching should be so satisfactory that there should be hardly any failure, though the mere fact that the percentage of passes is high can hardly be looked upon as constituting any evidence of success and efficiency.

Political subjection has undoubtedly many demoralising influences, but Swarajya is not also a panacea for all ills. The impulsive young men of our Universities are such hasty and rash enthusiasts that they are often apt to imagine that they have hardly any duties in life, except to shout for political privileges. Sir S. Radhakrishnan corrected this common notion effectively in the course of his recent Convocation Address at the University of Lucknow. Exhorting his young hearers to work for a great India by obliterating communal and other differences, Sir Radhakrishnan said:

"The problem is not solved however if responsibility for the government of India is transferred to Indian hands. It is a fond illusion to think that everybody will be happy and contented the moment India obtains her freedom to manage her own affairs. Swaraj cannot cure all ills. Referring to the Reform Bill Sydney Smith said: 'All young ladies will imagine, as soon as the bill is passed, that they will be instantly married. School boys believe that gerunds and supines will be abolished and that currant parts must come down in price, the corporal and the sergeant are sure of double pay; bad poets will expect a demand for their epics.' Simply because Home Rule for India is obtained, we

need not think that we will have plenty to eat, enough to drink, good clothes, pleasant homes, good education and sufficient leisure for all. Self-Government does not mean that all heads will become hard and all pillows soft. We cannot make an Utopia to order. The first essential for achieving political freedom as well as guarding it when attained, is a juster social order. We must build a social structure rooted in principles of truth, freedom and equality. The University men are both the builders and the material of the new structure, and if they go out of the University and enter life imbued by the principles of honesty and adventure, vision and courage, they will help us to build the new India which is yet to be."

There can be nothing but praise for the desire so popular in India, to-day, to improve the status of the vernaculars and to

utilise them more extensively for the highest purposes of literature and scholarship. But the sentiment can easily be carried to extremes, to the detriment of national needs and efficiency and to the want of adequate recognition of the important part the English language must continue to play in India. An instance of this was furnished the other day in Calcutta in connection with a proposal of the Corporation to present an address to Rabindranath Tagore on the occasion of the ensuing celebration of the seventieth anniversary of his birth. Some of our vernacular enthusiasts moved for a departure from the usual practice of presenting the address in English, a language understood by every member of the Corporation, and insisted that it should be in Bengali. The European and Mohamedan members complained about it, but the Hindu Bengali majority had no difficulty in carrying the resolution in

the teeth of all opposition. May we however venture to point out that this was a mistaken decision? Rabindranath Tagore is not a mere Bengali, he belongs to the whole of India and perhaps to the entire civilised world. Everything is to be gained by honouring him through a document which will be read and understood far beyond the confines of Bengal and which will also incidentally ensure intelligibility to every member of the Corporation on whose behalf the address is to be presented. Will those who paid such scant courtesy in the Corporation to people who did not understand the Bengali language, pause for a moment and consider what the status of Rabindranath Tagore should have been before the civilised world, if his works had not appeared in English and attracted a wider audience than the Bengali community in India, though to-day they can afford to brush with contempt the very laudable wish of his admirers who wanted to honour him in such a widely known language as English?

We regret to have to record the death of Mahamahopadyaya Hara Prasad Sastri, the well-known Orientalist of Bengal. A sound

scholar of Bengali as well as Sanskrit, Pandit Hara Prasad did much during his life for the advancement of Oriental studies in India and had the distinction of being the President of the Royal Asiatic Society of Bengal for several years. A gentleman of real culture, genial and charming in his manner, Pandit Hara Prasad had a lovable personality and his death will be mourned by a large circle of friends. A striking feature of Panditji's intellectual outlook was the combination of Western methods of critical scholarship with the profundity of the indigenous Sanskrit Pandit. May his soul rest in peace!

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Professor R. N. SANYAL, M.A., Member of the Faculty of Arts, Agra University, Gorakhpur, writes under date 28-10-1930:—"Many thanks for your book. I carefully looked over the book and I am glad to say that I find it useful. Though containing less matter than Iswari Prasad's 'A Short History of Muslim Rule in India' recently published, a copy of which was sent to me for review, it is more suited as a text-book both on account of its brevity and cheap price. I propose at the next meeting of the Board of Studies to include this book for students of the Intermediate classes in the next prospectus."

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AGRA UNIVERSITY CONVOCATION ADDRESS.

BY DR. SIR C. V. RAMAN, KT., F.R.S., N.L.

CONSIDER it a great privilege to be called upon to address you this evening. I do not know exactly how the numerous graduates of this evening must be feeling in having had to sit through this function. Remembering a similar ordeal which I underwent some 25 years ago I can just recollect the sense of boredom with which I had to go through three hours of this function. I was only relieved on having had to walk up to the dais to receive one of these coveted medals. To the few fortunate, who have had the honour of coming to the dais, and shaking hands with the Vice-Chancellor this afternoon, I tender my congratulations and I only feel sorry that they were not given to all of you students, which would have given you an opportunity of coming to the dais and having the pleasure of shaking hands with the Vice-Chancellor. Be it so, a function, such as this, to all of you, must possess a significance. To you graduates of the Agra University, it marks a mile-stone in the road of your academic progress. A Convocation is, undoubtedly at least to the graduates of the year, an occasion they will remember; the feeling of that remembrance may be of boredom, may be of triumph, but still it is an occasion to be remembered. It is only right and proper that they should try to look beyond the surface of things and try to understand the real meaning of what a function of this kind stands for. India to-day stands at the cross roads. There is no doubt that the country and all its people look forward to a new India which is coming, in which you and others like you will have a say in determining

the future and the fortunes of our country. An occasion of this kind is one in which it may be permissible even for a teacher or an academician to look forward and try to envisage what part graduates of Indian Universities will play in the India of the near future.

INDIA OF TO-DAY.

It is often the fashion, I think, to condemn the University system in India to-day as something foreign, that has been imposed from without. That criticism will surely apply at least to some of the external things, such as compulsion to wear colours and clothes, may I add, through, say, an innovation that we have inherited from mediæval times in Europe when the monks were obliged, I suppose, for 364 days in the year, to wear some type of very unattractive clothes till at last one day in a year, they had all the colours of the rainbow on themselves. That I think is the significance of the various colours which adorn the graduates of the year to varying extents. It is, as I said, the fashion to regard the whole University system in India as something foreign. Now the point is that it has come to us whether we like it or not. Be that as it may, the fact remains that the India of to-day is very largely the creation of the Universities of India. What unity of the common ideas of the culture India possesses to-day is very largely the work of the Indian Universities. In saying this I am not in the least inclined to belittle the great contribution to Indian culture that comes to us from the unorganised learning of the ancients. Nevertheless it is a

fact that the India of to-day is very largely the creation of the particular type of learning that has come to us from the example of the West and especially from the Universities of which you, Sir, are the head. Looking round this magnificent hall and seeing the flags of all the colleges hanging around I rather like to recall an analogy. We, all of us, to-day hear much of a federation of India; a federation of self-governing provinces and states. So it seems to me looking round this hall that I may well prefer to call the Agra University as a federation of 15 colleges which are represented by flags of befitting designs. You are a federation, a federation perhaps of learning. One may stop to ask what exactly federation is intended to accomplish in this case.

AFFILIATING UNIVERSITIES.

I am not a politician myself because if I were, I would not perhaps have come to this platform, but it is permissible to ask whether a federation of learning is intended merely for a solemn occasion once in the year and nothing else for the rest of the 364 days. Thus it seems to me that a University which is a federation of colleges, which is not one of the new types created here and there, which are called teaching Universities, a University of that kind has come to set the very fact that in spite of the loud condemnation we hear on all sides of the old-fashioned Universities of Calcutta, Madras and Bombay, in spite of all the storm radically poured on the heads of these Universities, there are still in existence to-day affiliating Universities and what is more important, we have one more such University created here which has a delightful function of examining the candidates and conferring degrees on them. Quite recently, I hear, a vigorous plea has been put forward

for the necessity of affiliating Universities in India. That reason is one which should appeal to the Finance Ministers of India and the provinces. It is said that the affiliating University is a necessity because it is entirely inexpensive, inexpensive because you have a very simple system of accounts. On the one side, the candidates pay their fees and on the other they receive their degrees. The account is closed by drawing a line at the end of the year at the time of the Convocation. It is therefore very delightful and very simple and I think to-day if all the Finance Members had their say in the matter of re-organising the University system they would, in doing so, abolish all these teaching Universities and have a simple and beautiful plan of the Agra University. But is it right? That is what one may just stop to answer. As a man of science it has been my privilege, always my duty, perhaps, to try to look beneath the surface of things. What seems quite obvious and easy to understand for most people is just what seems difficult, most profound for the man of science. It is just because the idea of affiliating University seems so delightfully simple that it seems to me a most difficult proposition.

KNOWLEDGE IS ONE.

In a federation the individual federating states have all certain duties which I hope they understand, certain privileges which they undoubtedly claim with loud voices which can be heard even across the seas. But what is likely to be forgotten is this, that you cannot have a real federation without, I may say so, central responsibility. We hear to-day so much about central responsibility. What is the central responsibility which attaches to the federating Universities? What is that golden cord which seeks to bind together

fifteen different colleges spread out over an area larger perhaps than many European countries, larger perhaps than many of the major provinces in India? It seems to me the answer could not merely be the fact that you all have one Vice-Chancellor, that you have one Registrar, that you have a Senate and a Convocation each year. That however is a mere matter of form. I do not mean, sir, any reflection on your personality. In the last analysis the idea of a University is really based upon a certain abstract. Knowledge is a great impartible estate. In the 19th century, in the latter half of the 18th century, it was imagined that you could cut off knowledge into great and small watertight compartments—each of them beginning with some word, which is ology—Zoology, Biology and so on, all of which were subjects to be worth study for their own sake and for nothing else. In a sense that idea of the compartments of knowledge was really a break-away from the older human tradition when all knowledge was truly one. The march of time, the advance of science, has brought once again a turn of the wheel. We to-day realize that the conception of unity of knowledge is real, is fundamental. Nature refuses to be partitioned. She decides as such that she can command, that she will reveal herself only to him who can see her. We must look Nature in the face. She is one. This last analysis is the ultimate basis of the University idea.

Now what is it we mean by trying to create a University out of the large number of institutions scattered over a great country? It is in a sense a recognition of the fact that we in India have a number of great institutions, a great area of our country, a vast extent of our population. It follows that we can afford

always to try and build up at one single place an institution where this University idea, as I have put before you, can be fostered to the fullest extent. We realise that it is possible, and indeed, often desirable for a number of units not too far from each other to federate into common interests, but it follows that you can have no real federation unless, in the first place, we agree with the participating states or provinces, unless the institutions and states recognize that they have not only privileges but they have also duties, unless federation recognises that it also has both duties and privileges. It seems to me that the idea of an affiliating University cannot be a success unless you have a vivid realization of these points both on the part of your colleges and on the part of your University. So long as the federation is merely, so to say, a joining link between institutions that have no common purpose, such an affiliation can be nothing but a purely formal existence.

'THAT OLD TYPE OF UNIVERSITY.'

Fifty years ago, the ideal of University education was possible, perhaps practicable, in India. It regarded the function of the University merely as one of imparting some kind of knowledge and testing the success of that imparting. In reality, however, the very idea of University is quite different. No institution can claim to be a University unless it has, as its basic platform, that idea which I told you about, the recognition of the unity of all knowledge, a recognition that knowledge can only be truly gained by one who seeks to see Nature as she is. Unfortunately one result of the history of the development of Universities in India has been that we in the past at any rate have had merely to be copyists of what was done in some country or other, perhaps of such Universities as London, etc.,

which at one time were purely affiliating and examining Universities. To-day while we all recognize that affiliating Universities in India must continue we have at the same time to clearly recognize that it is no longer any use having that old type of University which imagined its duties began and ended with the granting of degrees. It is quite permissible of course for a University to say: 'Well, we have continued to do this, we think it is quite enough for us.' That idea unfortunately will not work for a simple reason, that we have to-day in India not one or two Universities but we have such a great number as 18 or 19 and all of these Universities are setting up standards for teaching, for research, for scholarship which are advancing in spite of the efforts of Finance Members to retrench their grants. Yours is not the weakest University which you have in the United Provinces. You have to seek, rather you have to court, comparison, you have to justify yourself in comparison with the strongest and the foremost of the Indian Universities. Nay, much more. Every graduate of every Indian University knows that in this competition in the struggle for securing positions in after-life he has to face competition not only with the products of Indian Universities but also with the numerous graduates and non-graduates of English universities who take a cheap second class passage at one of the Italian boats, go to Europe, may be England, may be Scotland, even Ireland, Germany and so, on and come back with foreign degrees. In spite of the very remarkable development of nationalist feeling in India, a very strong development, the feeling of Indian admiration for degrees acquired in Great Britain, to a less extent in Germany, that feeling of admiration still continues and the result is that the products of the Indian Universities have necessarily to stand comparison with the products of the British and other foreign Universities.

NOTHING BUT THE BEST.

We have to remember always that no University in India can survive unless it seeks to be one of the best, if not the very best. What is it then that provides the University with a high repute? I referred just now in terms that may be somewhat unjustifiable concerning some of the Universities of Great Britain. Some of you may point out that my remarks smell or taste like sour grapes. I have not the good fortune of taking a degree at a British University in the ordinary way. I come before you this evening clad in a gown of a British University which would show that I do not entertain any grudge against the British Universities. What is it you go for to England, to Berlin, to Paris? What is it you see there? What is the idea that fills the minds of the teachers, of the great men like Einstein, Langevin and Planck? What you see is this. The work of some of these great Universities is dominated, moved, impelled by the passion for the pursuit of knowledge in the abstract. That is really the University idea. Where you do not find the divine produce, where you do not find that continued, resistless search for truth, where you do not find all these things you do not find a University. You merely have a high school. This is the distinction between what is a University and what is not a University. You have got to recognise that. I realise, sir, that when Agra was cut off from some other Universities of the United Provinces the Government had thought that Rs. 30,000 a year was a magnificent grant for setting up

a new University in Agra. You have now the great institutions in one of which I have the honour and the privilege to stand here to-day. You have the various colleges whose flags are hanging about me. I have no doubt, with all your working, that your graduates will feel justified and remember of their Alma Mater, and I should like to appeal to them that it is quite as much their duty as yours to see that Alma Mater, the name and the fame of the Alma Mater, grows in the years to come and that name and fame cannot grow unless your University is inspired by ideas and ideals of that type. Allow me, sir. I know the time is running and all of you are growing anxious for the delightful tea party, but before that may I continue for a little while more to tell you what my idea of a University is? Not a magnificent house like this. I should rather be pleased to see a tin shed or even prefer a big thatched hut instead, provided it contains all the latest books and periodicals in every language—books, journals in every language—not only in English, German, French, Spanish, Italian, Russian, Swedish, Danish and so on but even in Turkish. I say so with all due deference to the few Mahomedan graduates who are sitting here. No part of the world can afford to ignore work being done in other parts of the world.

GOOD LIBRARY ESSENTIAL.

People to-day will realize that no one country has the monopoly of intelligence, has the monopoly of genius. Every country has to learn from every other and this spirit of University is truly expressed through the medium of printed works. Without a great library in which the humblest scholar can go and handle books freely a University is only on paper. It only exists for one day of the

365 days of the year. You ought to have a great library and, if possible, perhaps two libraries, which would enable the humblest student to handle without restriction the treasures of human knowledge. You would feel that it is a very simple matter. But let me assure you, one of the greatest difficulties to-day in the progress of knowledge and learning is the difficulty in the path of the scholar getting to know what is being done in other countries, even in India. That is what you have to try and do. I cannot imagine any object more worthy of the philanthropy of some of our wealthy people than the idea of creating a University library or libraries in the shape of your federation and do not regard it merely as a provincial duty. I feel sure that in the India of to-morrow the real teacher of federation will say, this is not my work and the province will say that is not mine, and between the two views a great many things will remain undone. It is for the University to give the lead in all that makes things higher and nobler in the University work. The colleges have their own difficulties. Do not consider, please, that I am speaking disrespectfully of students. Students are indeed a very useful factor to make the colleges pave their way. It is for the University to set the ball go. It is for the University to determine what shall be done and what the degrees of the University shall mean and all these things.

POLITICAL INFLUENCES.

There is, however, another thing upon which I should like to lay great emphasis. To-day India is dominated by politicians. I have no quarrel with the politicians. For some of them I have the highest respect provided they do not try to interfere in academic matters. The great danger to-day

and the greatest danger of to-morrow is that our academic pillars and ideals are determined not by educational and University idealists but by political and other exigencies. In their way disaster lies. The day when Universities are run not by your teachers but by your politicians will be the day when India will slip down on the road and become a fifth class power like Roumania and Bulgaria. She will not then be able to rise to the height of Great Britain and Germany. There is no doubt that the India of to-morrow will be created not by ideals preached by politicians or from the legislative chambers whether they may be on the hill tops or on the plains, but the India of to-morrow will be created by the spirit of your teachers, by the spirit of your investigators and still more by the spirit of your University students. It is they who will create an India of to-morrow. It pains me to see occasionally to find University Convocations, text-books, syllabuses and examinations being conducted by people who have no idea as to what they are doing. As they are said to possess a spirit of self-sacrifice in them I will ask them to exercise their self-sacrifice a little more and leave the task of education to the teachers. If they do so, we shall have a healthier tone in the educational work. We shall have no difficulty about teachers and others. In fact, it must be for the teachers through all the circumstances of the case to decide what they can do. That should be the work and the responsibility of the teacher.

A WORD TO GRADUATES.

I have spoken in main of University ideals. Now I should like to address a word to the graduates of the University. As I have already mentioned to you, my young friends, it

is you and others like you who will be what India of to-morrow is to be made of. I know it is your heart's desire that India should be free, should be in a position to organise and determine her own prospects. That may be and perhaps is a very desirable ambition but you cannot be sure of one thing, and that is whether the India of to-morrow will be a better and happier India than the India of to-day to live in. That is what you are not aware of. It may conceivably be a worse India. It is for you to find out what the country is going to be like. In this matter there are two great schools of thought. There is to-day in the political and the moral sphere a sharp division between educated Indians themselves. One school of thought believes in going back to the time of the Vedas and Puranas. It believes that all our Indian learning, culture and wonderful knowledge lies embodied in Sanskrit, Vedas, etc. That is when we have to go back. That school believes that all these inventions made by science in the present age were all known before and they say, 'Do you not know that aeroplanes, etc., were all found in the *Mahabharata* and were freely used?' They distrust and point their finger of scorn at modern science. They say it has demolished all our old industries like sugar, cotton, etc. They say that science has done nothing but harm to India—Let us go back to our mediæval India—That is really a happy India. The other school of thought believes in modern science. It believes that the West has undoubtedly some features of evil. It is much against its bombs and all the wildness of war. The West has some evils, nevertheless it has tried to open the light of new knowledge, a light which we cannot afford to ignore. That new school would

march with the West but would compromise with the other school in some respects. Let us therefore be clear in our minds as to what an India of the future is to be. Are we to go back or are we to march onwards with modern science? That is the question you have to think out. No politician will ever speak or open his lips in this connection because if he did so, he will probably be stoned. You have to think it out for yourself. As, to the exact meaning of this I have no doubt in mind but I do not wish to court unpopularity. If your University training has not taught you the right way to think on these matters, nothing that I can say in five minutes before you will make a difference. It is mere foolishness to suppose that a Convocation Address from any lecturer, however eminent, however stupid, can make any difference in the mentality of the members of this University if after six years of continued study, after successfully passing terrible ordeals of examinations, succeeding and getting degrees, you stand in need of any advice from me. Any advice will be useless.

CHAINS OF FANATICISM.

It is for you, my young friends, to realise your great responsibility, to realise that if the India of to-morrow is to be happier, is to be better, we have certainly to live away from it unless the ideas, habits and thoughts which bind us round are chains stronger than any Czar or king invented,—the chains of our own minds, the chains of our own fanaticisms. The purpose, as I understand it, of University education is to release the mind from the bondage of ignorance, to make it realise that human mind can rise superior to its environ-

ment, than human mind can break away from intellectual bondage and seek to find the true knowledge for itself. If a University does not teach that spirit and if it merely inculcates a spirit of hatred it will only succeed in splitting up India not into 10 provinces but into 100 sub-divisions. I rejoice that Agra University is not hampered by any of those traditions which compel it to propagate minorities. It is free to teach what it can instead of being taught to hate each other.

Allow me, sir, to say that I have thought it a great pleasure to be remembered by the members of your University to deliver the Convocation Address. I hope you will forgive me for any remarks I may have made and which may be unconventional. Your Vice-Chancellor well understands that though I had sent him a written address a fortnight ago, yet what is contained in that address is not what I have spoken to-day. I wish you well. I hope you will not forget that what you are to-day you owe it to your Alma Mater. There is no bond so fine, so sacred as the bond that ties a student to his teacher, that binds a student to his University. It should be remembered by you that in the years to come perhaps when you attain wealth and influence, if that happy day arrives, you do not forget that you owe it to the training you received in your college, in your University. Do not forget that that day is not sufficient. It should see the dawn of another day when you should be able to give a part of what you earn to your Alma Mater so that other children may have the same benefit, nay, in greater measure than you have had. The University should represent to you all thoughts fine, true and noble in life.

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ANDHRA UNIVERSITY CONVOCATION ADDRESS.

BY SIR. M. VISVESVARAYA, K.C.I.E., LL.D., D.SC., M.I.C.E.,

I ESTEEM it a privilege to be present here to-day and to participate in the proceedings of this the fifth Convocation of the Andhra University. I must confess that my knowledge of this part of the country is, for the most part, limited to through-journeys by rail and I also labour under the disadvantage that, in spite of close affinity of language, my acquaintance with the educational activities of this Province has not been very close. But I have watched, with special interest for many years past, and particularly since the struggles of the Andhra public to have a University of their own to raise their cultural stature, and to obtain independent political recognition for their part of the country in order to promote its economic well-being.

Perhaps the most significant development of recent times in Southern India has been the establishment of three new Universities as offshoots of the older federal University of Madras. The first area to set up such an institution of its own was, as you know, the State of Mysore, where, through the liberality of His Highness the Maharaja, the University is fostered with special solicitude and is maintained in a high state of efficiency. Incidentally it may be of interest to mention that the two distinguished educationists who have held, in succession, the office of Vice-Chancellor of the Andhra University, at one time occupied prominent positions in the new Mysore University. Next after Mysore came the Annamalai University, which owes its origin to the munificence of a distinguished citizen of the Tamil community and which is

also shaping creditably under its present management.

To those of us who watched the beginnings of the Mysore University and who remember the violent dislike which the mother University at one time showed to the idea of any daughter of hers setting up a house of her own, it is gratifying to learn that the two later Universities actually parted with parental benediction and that they have received liberal help and encouragement from every quarter, and particularly from the Government of Madras. I gather from the reports that, although the Andhra University was started in 1926, it took three years to choose its headquarters and that, having started as an affiliating body, it is still struggling to build up a teaching side to its activities. But now that Waltair has been selected, it may be presumed that the energies of the authorities concerned as well as of the public interested in education will, in future, be concentrated on raising rapidly the structure of the new University of which they have laid the foundation. It is also a happy augury that the Andhra leaders are themselves keen on abandoning some of the outworn policies of the older Universities and on concentrating the more modern or utilitarian side of higher education. I have long felt that it is necessary to adequately stress the utilitarian side, which has been unfortunately neglected in the past to the detriment of the permanent interests of the country. It should be possible to do this without being misunderstood or seeming to disparage the cultural aspects of University education.

The selection of the head-quarters, though tardily done, seems also particularly happy, because Waltair itself is a famous health resort, with scenery round about it reminiscent of the Riviera, and Vizagapatam, its suburb, with its potential magnificent new harbour and railway connections, promises to become, at no distant date, the Karachi of the East. It is also fit and proper that Universities of the newer type should be located in, or close to, large cities and emporiums.

ADVICE TO GRADUATES.

Before I proceed to the special topics I have in view, let me in accordance with recognized custom on such occasions say a few words, in the nature of advice, to the graduates on whom His Excellency the Chancellor has just conferred degrees, with due ceremony, in the presence of this large and distinguished audience.

Your first duty, my young friends, after you leave the portals of this University, is to enter some profession, occupation or service to earn your living and cease to be dependent members of your family and community. Your next is to endeavour, to the fullest extent of your opportunities, to persuade all adult persons within your influence to keep themselves usefully employed, according to their capacity and circumstances, so that the great majority of them may constitute self-supporting members of the community. I lay special emphasis on this because while for many years past the rate of increase of production and wealth in this country has been inappreciable, the population, whose welfare depends on such increase, has been growing at an alarming rate.

Success in life depends on action, that is, on what you do, and not on what you feel or

think, and the price of success is hard work, preferably in an occupation congenial to your taste. To work, to initiate, to get results, and get results quickly is the key-note of the modern age. Industry, concentration, self-reliance, a resolute will, added to integrity of character, are the chief passports to success, and these are within the reach of every active brain.

In these days of mass movements, mergers and co-operative enterprises, important results are achieved when large numbers of people work in unison for common advantage. Every nation that has prospered in recent years has done so by organized team work in the various departments of its public life. So, for the sake of your own and your country's welfare, you will find it an advantage if you form the habit of working harmoniously with all people with whom you come into relation in your daily life.

To the extent to which your opportunities permit, every one of you should give a portion of your time and energy to the service of the community, in one of the many ways for which there is always a great demand. Public service, the attempt to make the province or state in which you live a better and happier place, is a high vocation. It should be your proud privilege to participate in such work, in however small a degree, according to your capacity and opportunities; and you will experience no greater satisfaction in later life than what you may derive by the service rendered to your neighbours, society or the community.

We are living in a rapidly changing world, and if we are able to assimilate the latest habits and practices of progressive nations in our business life, our moral and material advance will be speedy and certain.

A wise use of time is of great value to success. In the last resort, health, happiness and success all depend on the work you put in; and on your own honesty of purpose, determination and pluck, you should stake your future.

With these few words of counsel, I offer you all my warmest congratulations on the degrees and distinctions you have won, and I wish you and the University which has helped you to win them continued prosperity and godspeed.

THE COUNTRY'S DEFICIENCIES AND WANTS.

On the present occasion, I wish to draw attention to the importance of adjusting future educational policies and curricula to the needs of business and demands of economic advance. From the public standpoint, this is an urgent matter and I wish it to be considered not as an abstract proposition but as a live issue to the present generation. There has admittedly been such an appalling waste of talent and money in education of every grade in this country, especially of the University grade, that it is time that the whole system of education in it is rationalized without delay. The country's paramount needs render such a step not only necessary but imperative. The cultural side has had more attention paid to it in the past than, perhaps, it rightly required, in view of the growing population from decade to decade. There is, however, no need to decry the value to be attached to it, if to-day we are free to emphasize the urgent importance of the utilitarian aspect to meet the stress and storm of life with which the country is faced. University reform, if it is really to bear fruit, should, I think, from now, especially in view

of the impending constitutional advance, take note of the defects of the past and provide remedies which will prove not mere palliatives but sure cures. Some degree of realism is, I think, really called for if Universities are to subserve genuine national ends in this country. The Andhra University is yet young and it is in a position to start well and strike out a new path in consonance with the needs of the time.

We will now go over a few of the most glaring deficiencies and wants with which we are confronted. One of the greatest disabilities under which the population of this country is labouring is illiteracy. According to the figures available, not more than 8 per cent. of the entire population of India is able to read and write. The corresponding proportion of literate population in British India is 7.5 per cent. and that in the Madras Presidency 8.6 per cent. In most countries claiming to be progressive, the proportion is at least ten times what is represented by these figures. The next biggest disability, if next at all, is short employment and unemployment. Agricultural operations in this country depend on rainfall which lasts for about four months; the cultivator has, in consequence, regular employment for approximately six months in the year and there is no policy, organization or agency to find him suitable work for the remaining period. He is left to his own unaided devices to keep himself employed. A third deficiency is the pursuit of agriculture by archaic practices, that is to say, by unscientific and unbusinesslike methods and without machinery, adequate capital or manure. A fourth defect is the neglect of industries. For one reason or another, organized industries, which in many countries produce staple products in large quantities

and help to build up wealth, have not made any appreciable headway here. The number of persons employed in such industries is barely 1½ million out of a total of about 353 million. In a progressive country of this size, there should be at least 25 million so employed. Such a development will, in addition, lead to perhaps twice this number obtaining employment in trade, transport, finance and other subsidiary occupations. A fifth defect is the small share taken by the people in higher commerce and foreign trade. India has no investments abroad and is herself a debtor nation. Such gold and silver as she has, constitute for practical purposes frozen wealth, and the country's economic organization is not calculated to encourage investments in industries and business. A sixth defect is the absence of any organization on modern lines to supply these deficiencies in a direct manner and to make available capital, technical skill, advice, and other aids, to help the people to build up business.

The future educational policies of the country should be specifically shaped to provide remedies for these various deficiencies and wants. A determined attempt should be made to equip every young person in the country with a knowledge of the Three R's and, also, when possible, with some degree of knowledge or skill in a vocation or profession suited to his capacity and opportunities. The educational system should arrange to train a sufficiency of natural leaders, such as administrators, entrepreneurs and technical experts taken from young persons qualified by their natural ability and aptitudes. It is these two classes, namely, persons of directing ability on the one hand and the great masses of working population on the other, that count most in the country's

economic life. The two working together create business. The intermediate class, *viz.*, foremen, middlemen and skilled workmen, will grow up automatically although they too will need, and will benefit by, education appropriate to their class.

EDUCATION OF THE UNIVERSITY GRADE.

As the leader class is usually trained in the Universities, it would be appropriate to consider first in what directions the system of University education needs revision and strengthening. The number of scholars attending Universities, and institutions of University grade, in British India, comes to about 100,000 and including the Indian States it may go up to 110,000. The corresponding figures in Great Britain and Japan appear to be about 49,660 and 52,186 respectively and in the United States of America about 919,381. The comparison shows that if Great Britain is to be our model, and assuming that we can afford the cost, there should be at least three times the number of scholars attending institutions of the University grade in this country than there are at the present time.

The instruction given in the Indian Universities in subjects which have relation to production and business is extremely meagre. The most remunerative occupations for a time in this country will be those connected with *Industries* which are needed for converting raw materials into the finished products of commerce. The principal courses of studies needed for industries and allied professions are—Mechanical Engineering, Electrical Engineering, Civil Engineering, Mining and Metallurgy and Chemical Technology. With the increase of inventions, new machinery and new commodities, specialized branches of Engineering have developed to meet the needs of definite technique, such as, Fuel and

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CO-OPERATION AMONG UNIVERSITIES.

It is not intended that provision should be made for every important subject in every University. Where the number of students requiring training in a subject or science is small, it would be comparatively less costly for the University to encourage young persons to proceed to other Universities where specialized training is imparted or even to foreign countries, by providing scholarships and stipends for the purpose. I would plead in this connection for greater co-operation between the Universities, both in regard to providing courses of study and to specialization with a view to ultimate research. Many foreign Universities are constantly modifying their curriculum to suit the changing demands of public work and business in their respective countries. Some of them, like the McGill University, of Montreal (Canada), keep track of even social questions and issue social service bulletins. That shows how modern Universities try to keep abreast of the times and endeavour to cater to public needs on efficient and scientific lines. Except perhaps in the Calcutta University, research is not carried on to the extent desired. There should be research by professors and research by students; those who show special aptitude in this field should be deputed to Europe and America in the country's larger interests. A TECHNOLOGICAL UNIVERSITY FOR INDIA. Such great importance is attached to Technology and Commerce in Japan that separate Universities are maintained for the purpose and students are encouraged to remain at a University on an average up to an age of over 26 years. Science and Technology should be cultivated in close association. It is gratifying to learn that the Andhra University is likely soon to establish a College of Science and Technology at Waltair. A few weeks ago in the course of a learned address at the Annamalai University, Mr. S. E. Ranganatham, the Vice-Chancellor of that University, deplored the lack of funds which prevented their starting a similar College at Chidambaram and suggested that instead of scattering their slender resources by multiplying ill-equipped Colleges, all the Universities of South India might join forces and inaugurate an up-to-date College of Science and Technology with complete equipment of laboratories, workshops and machinery. In this connection it is worth while considering whether the

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XXXXVII—c

Tata Indian Institute of Science at Bangalore may not be converted into a University as was at one time contemplated and placed under the control of a Board of Members drawn from the Universities of India, the representatives of the Tata family and the Provincial and State Governments concerned. If this was done and there was whole-hearted co-operation from all these bodies and authorities, it should be possible to obtain magnificent results in the technical line in less than a dozen years' time.

OTHER GRADES AND FORMS OF EDUCATION.

A general idea may be formed of the educational facilities available in British India from the number of scholars attending *all* classes of institutions which, in 1928-29, was 12·17 million. This is equivalent to 4·5 per cent. of the total population of the country, the corresponding proportion at about the same time being about 12·5 per cent. in Japan, 16 per cent. in Great Britain and 25 per cent. in the United States of America. The fact that the last-named country maintains one quarter of its population at school is doubtless the main reason why it is so prosperous to-day. The figures also show what an enormous leeway we have to make up in this country.

The numbers attending schools of the elementary grade in 1919 formed about 3·3 per cent. of the total population. To do justice to the needs of the country, this number should be trebled or quadrupled. There should be a wide diffusion of elementary education among the masses and the character of the education should be such as to give them a bias in favour of a vocation or calling.

The number of scholars attending schools of the secondary grade seems fairly satisfactory. Next in importance to mass ele-

mentary education comes vocational education. The number attending technical and special schools in the year 1929 is given as 327,673 or about 12 per 10,000. This number requires to be multiplied ten-fold if it is to be anywhere near the European standard. A very widespread system of vocational education is one of the greatest needs of the day in order to prepare the people for business life.

A young person who completes his primary education at the age of 10 or 12 should be able to enter an Arts and Crafts school in the nearest taluk or town. Students who pass the Middle School course and the High School course should be able to enter a Mid-Technical school and a Polytechnique (or a Technical Institute) respectively. For the highest qualifications in an occupation or profession, a young person should enter a University after passing the Intermediate Examination in Arts or Science. There should be institutions of corresponding grades on parallel lines in Commerce or Business and Agriculture for those who wish to take up those professions. In Agricultural Schools, instruction in elementary mechanical engineering and the use of machinery should form an obligatory course as in the United States of America.

To give opportunities of improving their knowledge or skill to persons already in employment, a large variety of schools should be allowed to spring up, such as, continuation schools, part-time schools, night schools, and special trade schools.

For a rapid diffusion of both general and business education, a considerable expansion of adult education is a desideratum. Adults should be able to obtain training in any grade or variety of education, up to, say, the 32nd

year of age by attending night schools or part-time classes, without material interference with their regular occupation and income. Private effort should come to the aid of Government to carry on a country-wide campaign to spread literacy, or knowledge of a vocation among the adult population.

In any scheme for a wide expansion of education, there should be provision for local Committees or Boards of citizens competent to advise persons in the choice of a profession or calling at any stage of their educational career.

LESSONS FROM FOREIGN COUNTRIES.

For preparing a plan or programme for the rapid spread of education, note should be taken of recent developments in all grades of education in foreign countries. A close study of the educational history and policies of three or four up-to-date countries for the past fifty years will provide adequate data for framing a reliable plan and programme for our own. Western countries and Japan closely watch each other's progress in every department of national growth but neither Government nor leaders in India are in the habit of profiting by the past experience of countries outside our own. They only compare the country's condition with its past and are easily satisfied if there is some small advance. What matters to us in these rapidly changing times is not that we are better than we were ten or twenty years ago but how we are advancing relatively to countries in the forefront of progress.

For the same purpose, the present world trends in industry and business should be also taken into account. The employment of machinery and mass production methods in the West and particularly in the United States of America, has helped to reduce pro-

duction costs and the use of human labour. This has resulted not only in increasing production in the countries in which these devices are adopted but also in reducing the wages paid to human labour in backward countries like India. A striking instance of this tendency is the sale at Karachi of wheat, produced in Canada and in Russia, at a price lower than that ruling for wheat grown by Indian labour on the banks of the Indus.

You have all heard of the famous Five-Year Plan of Soviet Russia, which is a programme to cover year by year and item by item the economic development of the Union commencing from the year 1928-29. Speaking of this nation-wide economic plan, the *Manchester Guardian* not long ago remarked: "The originality of organization, the variety of methods of teaching and the conscientiousness of aim, may well produce in a few years a technical education system which will startle Europe." A similar organization for developing production and education may be most useful if India decides to forge ahead. We are not concerned with the Soviet methods creating a classless society or promoting collective ownership, but their principle of conscious planning conveys a much-needed lesson to this country. It is reported that many broad-minded business leaders in the United States of America are already seriously thinking that some of the elements of a planned economy may be adopted in their own country.

A PROVINCIAL PLAN AND PROGRAMME.

Our aim should be to bring education closer to business. To illustrate how this should be done, let us take a province like the Andhradesa which has a population of about 20 million in round figures. We know that there

is as yet no separate Andhra province as such but the area indicated is as good as any for our purpose.

A Five-Year Plan of educational advance should give data showing the various forms of educational institutions required, the approximate number of young persons to be kept under training in each class of institution in order to provide future recruits to the various classes of industries, occupations and professions. These numbers should not be left to chance, as has been done hitherto, but determined by investigation in close consultation between Government, the representatives of industries and professions, the Universities and other classes of educational institutions. The best way to insure co-operation is by the establishment of boards or committees to advise the Government.

The total number of scholars of all grades attending educational institutions in the Andhra country, according to the latest figures available, is 991,931, or say, one million persons. For a future ideal the number should be 25 per cent. of the total population, or about four times the present number. The number of scholars maintained in elementary schools in the same area is 932,731. This should be increased to 15 per cent. of the total population, or say, 3 million. In schools of secondary grade, the present attendance is about 55,409 persons and this may have to be increased to about 100,000. The number attending vocational and special schools at present is probably about 13,000 persons. To do justice to the business needs of the province, this number should go up to, say, about 200,000. There should be at least one College of Science, Engineering and Technology, one well-equip-

ped College of Commerce and one College of Agriculture, with a model farm attached. Of vocational or technical schools below the University grade, there should ordinarily be three grades, namely, elementary, middle and higher; of commercial and business schools two grades and of schools of agriculture also two grades. With the growth of industry and business, a great variety of unrecognized trade and business schools is apt to spring up and such institutions also should be encouraged and supported.

There should be one or more factories or manufacturing establishments, either maintained or aided by Government, for the manufacture of machines of every kind, and machinery such as locomotive engines and even aeroplanes and automobiles. Where the expense of the manufacture of full-size machinery is found to be prohibitive, resort should be had to the "Unit operation method" by using plant in miniature. Such an arrangement is indispensable to render industries popular in a country like India, where both businessmen and students will benefit by ocular demonstration.

Another class of training on which emphasis may be laid is instruction in business habits, up-to-date business routine, methodical performance of duties, appreciation of the value of time and similar matters. Instruction should be given also in every grade and class of education, to the extent appropriate to each, in Civics, Public Administration and Business Administration.

There is practically no limit to the supply of student population in any province provided the necessary funds are forthcoming. If an appeal for funds is made by eminent sons of the Andhra country itself, like Sir

C. V. Raman and your own Vice-Chancellor, Sir S. Radhakrishnan, it is not likely to fall on deaf ears. I am sure there will be general agreement among educationists that there should be a planned economy on the lines I have roughly outlined for every Indian province for the prosecution of its future educational programme.

EDUCATION AND ECONOMIC WELFARE.

I fear I have digressed somewhat from the usual style of Convocation Addresses by giving special prominence to one aspect of education only, namely, its business and practical side. I was led to choose this theme because education is the root of all progress and every educational problem is at bottom an economic one. My diagnosis is that education in this country having regarded to its enormous population is pitifully meagre, that it is far below progressive standards, that it is ill-adapted for nation-building and wealth-producing activities and that the Universities which are at the apex have not set a good example in all these respects. The economic future of India is placed in grave peril by the slow progress which mass education is making and the scant attention that is being paid in University circles to the needs of industrial and commercial advance. There is no organization charged to deal with these problems, nor is there any visible move to create such an organization.

If what I have stated is correct—and my diagnosis is based on information gathered during visits to the leading Universities of the world and to some of them more than once—I trust it will be conceded that a case for reform is made out and that the time has arrived when no province or State in India can rest content till it has suitably modified its educational policies and put its house in

order. At a time when every rupee of money and every ounce of energy is needed to increase the volume of education, we can ill-afford to waste either money or energy on the ornamental variety, whatever the class or form, that does not return its money's worth.

The present low production and income of the country cannot be due to lack of labour, because, as we have seen already, there is redundant man power, and unemployment is rife. It cannot be due to lack of resources, because raw materials of enormous value are exported from the country, and manufactured products, which can be made here out of the same materials, are imported from abroad in equally enormous quantities. In the midst of a competitive world, we find our vast population, ignorant, unorganized, and suffering from short employment. The problem before the country is how to grow more products of every kind needed to sustain its enormous population, how to convert most of the raw materials capable of being used in industries into manufactured products within the country itself by the labour of its own people, how to raise the productive value of that labour and the quality of constructive talent to supervise the labour; and also how to bring into existence an organization which will help to attract capital to business, and in which labour, raw materials, popular initiative and directing ability may all play an appropriate part to increase the country's production and wealth.

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a crore and a half of money to build up a new University. I have had proofs in a small way in the Mysore State of what popular enthusiasm can do when it is really roused. An educational campaign undertaken in that State between the years 1912 and 1918, under the supervision of an able head of the Education Department, resulted in trebling the number of scholars attending primary schools in a short space of six years.

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The people of the Andhra-desa are a patriotic and impressionable race and there can be no more legitimate aspiration for them than to bring, with the co-operation of their

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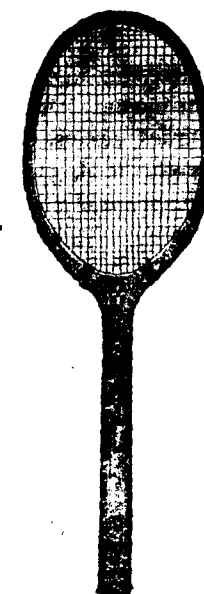
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