

THE EDUCATIONAL REVIEW

A Monthly Record for India.

29 MAR 1927

VOL. XXXIII.]

FEBRUARY 1927.

[No. 2.]

CONTENTS.

	PAGE		PAGE
THE FIRST ALL-INDIA WOMEN'S CONFERENCE—PRESIDENTIAL ADDRESS, by Her Highness the MAHARANI OF BARODA ...	55	THE ALL-INDIA TEACHERS' FEDERATION. (FROM OUR SPECIAL CORRESPONDENT) ...	94
INDIAN EDUCATION IN 1926. By Prof. P. SESHADRI, M.A., Head of the Department of English, Benares Hindu University ...	62	THE LINGUISTICS OF MODERN NORTH INDIAN LANGUAGES—(A REVIEW). By Mr. L. V. RAMASWAMI IYER, M.A., B.L., Ernakulam ...	101
THE TEACHING OF ENGLISH. By Mr. P. R. KRISHNASWAMI, M.A., Lecturer, Government College, Kumbakonam ...	65	PRIMARY EDUCATION IN BURMA, 1925-26 ...	106
DISCIPLINE.—By Mr. R. RAMANUJACHARI, M.A., Professor of Philosophy, Sri Minakshi College, Chidambaram ...	68	SCHOOL MEDICAL INSPECTION ...	108
FREEDOM IN EDUCATION.—By Mr. M. H. SYED, B.A., L.T., Allahabad ...	71	REVIEWS AND NOTICES ...	109
THE VAULT OF THE HEAVENS. By Mr. A. A. KRISHNASWAMI AIYANGAR, M.A., L.T., Maharajah's Collegiate High School, Mysore...	75	The India Office, by Sir Malcolm C. C. Seton, Deputy Under-Secretary of State in the India Office—in the Whitehall Series; A Primer of Roman History, by Alexander Duthie; Economic History of England, by M. Briggs, 2nd Edition; The Journal of Oriental Research, Madras, Vol. I, Pt. 1—Jany. 1927.	
THE EFFECTS OF ENGLISH EDUCATION UPON INDIAN VILLAGE SOCIAL ORGANISATION (with special reference to Seven Villages in Guntur District). By Mr. N. G. RANGA, B. LITT. (Oxon.), Diploma in Economics and Political Science, Certificate of Training in Social Work ...	83	MADRAS UNIVERSITY LIBRARY—NEW ADDITIONS ...	112
THE LEAGUE OF NATIONS AND SCHOOLS—A Lecture delivered by Mr. P. P. VAIDYANATHAN, M.A., L.T., of the B. E. T. High School, Rangoon ...	89	LIST OF RECENT ADDITIONS TO THE CONNEMARA PUBLIC LIBRARY, EGMORE, MADRAS ...	113
		EDITORIALS ...	114
		A Public School for India; Teachers and Managers; The Andhra University; Inter-University Board; Bilingualism; Lord Irwin on Indian Universities; Appendix—Draft Agreement between Teachers and Managers in U. P.	

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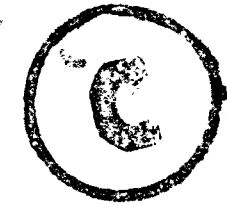
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Directed Numbers** :—Directed numbers, their meaning and diagrammatic representation. Extended application of Directed Numbers. The New Number-Scale and its Study. The four fundamental operations applied to Directed Numbers—Addition, Subtraction, The Laws of Addition and Subtraction, Multiplication, Division. Some Laws of Multiplication and Division. Application of the Laws of Equality to operations involving Directed Numbers. Algebraic Form. Exercises; **VI. Algebraic Expressions and a few Elementary processes** :—Distinguishing expressions from the number or terms. Distinguishing expressions by means of their degrees. Exercises. Addition and Subtraction by Polynomials. Brackets. Exercises. Long Multiplication. Exercises. Long Division. Exercises; **VII. Special Products**. **VIII. Factors and Multiples** :—The Use of Factors. Factorising expressions of the form $Nx + Ny + Nz$. Exercises. Factorising by convenient grouping of terms. Exercises. 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Choice of Scales to be adopted. Exercises. Graphical interpretation of the Constants m and c in the Linear Relation $y = mx + c$. Graphical method of determining the Constants in a Linear Law. Exercises. Parabolic Graphs. The Shape of the Graph. Symmetric Properties. Study of Variation from the Graph. Graph as a Ready-Reckoner. Note on the Choice of Scale. Graph as a Locus. Exercises. Geometric applications; **XI. Simultaneous Equations and their Applications** :—Notion of an Indeterminate Solution. Notion of Simultaneous Equations. Handy methods of solving simple simultaneous equations in two unknowns. Exercises. Applications. Exercises. Determining Constants in a Linear Law. Exercises. Problem—Solution by means of Simultaneous Equations. Exercises. Simple Simultaneous Equations in three unknowns. Exercises; **XII. Quadratic Equations and Problems** :—A Quadratic Function. A Quadratic Equation. Solution of Quadratic Equations. Exercises. Applications. Exercises. Evaluation from Formulae. Problems. Geometric Applications. **Appendix A. Special Developments** :—(a) Fundamental Notation—Dependent and Independent Variables. A Rational Integral Function of x . The Function-Symbol. Evaluation of Functions. Exercises. (b) The Method of Detached Coefficients—The Use of the Method. A Few Artifices. Exercises. (c) Homogeneity and Symmetry in Functions—Notation of a Homogeneous Function. Properties. Applications. Exercises. Symmetric Functions. Exercises. Properties of Symmetric Functions. Application. Exercises. Cyclic Functions. Exercises. Alternating Functions. Properties. The Use of the Sigma Notation. Exercises. The P Notation. (d) The Remainder Theorem and its Corollaries—The Remainder Theorem. The Factor Theorem. Exercises. (e) Applications of the Principle of Undetermined Coefficients—Exercises. (f) Factors—Exercises. Miscellaneous Cases of Factorization. A Few Factor Theorems. H. O. F. by Division. Exercises. (g) Identities—Identical Equations. 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பொருளடக்கம்.

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The Educational Review

A Monthly Record for India.

VOL. XXXIII.]

FEBRUARY 1927.

[No. 2.]

All literary contributions, books for review, newspapers, or magazines, sent in exchange, &c., should be addressed to the Editor, No. 4, Mount Road, Madras. Articles and communications intended for publication in the succeeding issue should, as far as possible, reach the Editor not later than the 20th of the month. The Editor solicits contributions on all subjects of educational interest. Stamps should accompany the MS., if the writer wishes it returned, in case of non-acceptance. The Editor can in no case hold himself responsible for accidental loss.

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THE FIRST ALL-INDIA WOMEN'S CONFERENCE.

PRESIDENTIAL ADDRESS

BY

HER HIGHNESS THE MAHARANI OF BARODA.

WE are privileged to be called to take part in a noble task. This opportunity, used with a sense of its responsibilities, with a vision of its enormous possibilities, will make history. Here, with the rising tide of revival of Indian culture; here, at the beginning of what may rightly be regarded as an Indian renaissance, we are assembled to discuss that which, more than all else, goes to the root of the re-birth of a great people. We are assembled to discuss those things which are essential for the education and the general well-being of the future mothers of the race.

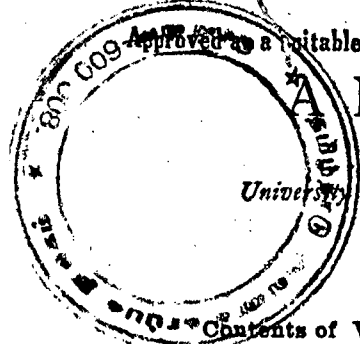
A CALL TO ACTION.

Friends, here and wherever in India news of this Conference may penetrate, let us at once declare that the fact of this All-India Conference of Women, the first of its kind, is a sign that

XXXIII—8

women have already attained the power of national expression. Let us make this the beginning of a movement which will deserve and demand the support of every man who has ever respected his mother, of every woman who has the intelligence to understand. A Conference such as this should do much to solve the difficult problems of the ways and means of attaining the ideals we set before ourselves. A Conference such as this should be a call to action; a challenge to those who would hold us back, an inspiration to co-operation in a victory of freedom and enlightenment over darkness and slavery.

Conscious as I am of the greatness of our opportunity, of the tremendous significance of the movement in which we are all called upon to take our part, still more conscious am I of my own unfitness to guide your thoughts and preside over your deliberations on such an occasion. Yet, after many years of thinking over the problems of Indian womanhood, I could not refuse the invitation with which you have honoured me. In thanking you for it, I undertake the task as a duty



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which any woman should be proud to have placed upon her. I pray that I may prove not too unworthy for it.

TRADITIONS OF POONA.

I may be allowed to congratulate Poona, and especially those who in Poona have been pioneers in the cause of the education of women, on the fact that this Conference should be held first in this city. I am sure our Conference will derive some rich inspiration from the past traditions of the place as from its modern culture and intellectual refinement. My mind cannot but recall how much Maharashtra, and not Maharashtra alone, owes to the manliness of Shivaji. My mind cannot but recall the extent to which the character of this leader of men depended upon the education and training he received under the loving care of a mother, deserted yet awake to her highest function. Having given birth to his body she gave herself up to the much longer process of the birth of his personality. Let us recognise that womanhood should be able to produce not merely healthy bodies but healthy souls. Let us recognise that for this, for themselves, and for the general happiness, women must have all that is implied by the well-known phrase: *mens sana in corpore sano*.

WORK OF REFORM.

Healthy minds and healthy bodies, these are possible for all, only in a healthy society. Those who have the cause of Indian womanhood genuinely at heart cannot fail to see that many of the main problems concern the social status of women, and the practices and customs which have grown up in relation with a false view of that status. "It should not be necessary to indicate in detail that Hindu *dharma* has an ideal of womanhood as high as any that exists or has existed in any race or clime. Nor shall I burden you with an analysis of the historical causes which have led in practice to such grave violation of this ideal. We are not here to discuss the past. We are here to raise the banner of freedom and to begin the work of reform.

Let us think briefly of some of the social practices which call for immediate change. They are such that our call for action cannot but receive a widespread response. In this we women have a privileged position, and men await our taking the lead: let us demand that deep-rooted evils shall be met with deep-rooted remedies. A few decades saw the curse of Sutties removed from our land: with like determination these social evils can all be overcome.

CHILD MARRIAGE.

First, there is the practice of child marriage, a practice which more than all else, militates against the advance of widespread female education. Before even the girl's body has reached real maturity, almost before she is aware that she has a soul of her own, she is made the plaything, either of a youth as sinned against as herself, or of a man who can neither respect her nor arouse her respect. Just out of the period of infancy herself, she is forced into the production of infants. She is prepared neither to give them healthy bodies, nor to train their minds to become noble men, loving and lovable women. Robbed of her own girlhood and youth, she is almost unaware of the many happinesses of a cultured life. She knows of little but infancy and motherhood, motherhood and infancy. She lacks most of what is needed for her own happiness and for the education of her children. If we are to have strong vigorous sons and daughters, we must have strong and mature mothers. For this, marriage must be deferred till the girl is fully developed. That can rarely be before the age of eighteen. If we think of what is involved in child marriage, we must admit that there are even more reasons for this to be forbidden by law than there were against Suttie. The latter was a short period of terrible torture; the former may mean a life-time of unutterable misery.

AGE OF CONSENT.

The age of consent should be made by law a minimum of sixteen. Many of the constituent

Conferences have done well in placing this question in the forefront of their deliberations. It is also now known that Sir Harising Gour, to whom the women of India owe a great debt of gratitude for his very valuable services, is going to bring the question of raising the age of consent inside and outside marriage to sixteen, in the Assembly. We have not merely to pass a resolution giving our whole-hearted support to the proposed resolution of Sir Harisingh, but we have to organise a regular campaign of propaganda throughout the country in favour of the resolution with a view to getting it accepted both by the Assembly and the Government of India. I cannot urge you too strongly to advocate this by every means in your power, by persuading individuals, by holding public meetings in the provinces from which you have come, by the formation of societies pledged to the cause of this and other allied reforms, and by urging your representatives in the Councils to take all necessary steps in this matter, to bring such a law into being with proper safe-guards to see that it is enforced. On the reform in our marriage system, will, I believe, rest the success or otherwise of our educational programme, and it is therefore that I recommend the Conference to make this a live question in its deliberations.

ABOLITION OF PURDAH.

We have also to insist on the abolition of the custom of Purdah. Adopted in earlier times for the protection of women, it is now not only no longer needed as those dangers are over, but it has itself become a danger to happiness. But surely there is no necessity to enter into a description of the many evils of this practice, with its enfeeblement of body and with its starvation of the mind. If women are to take their part in the raising of the tone of social life, if they are to understand the duties and responsibilities for which their sons must be trained, the Purdah must go. If women are to have that freedom of mind and that variety of interests, without which there can be no joyous life, the Purdah must go. The woman behind her Purdah is as much a captive as a bird in a cage.

Put up behind the Purdah she is steeped in ignorance and allowed to grow and to flourish like a pet animal. No ray of light nor enlightenment can penetrate into the Zenana. She is given away in marriage without any will of her own. A popular adage compares a daughter to a cow. Like the unfortunate cow she licks the hand of the butcher raised to sever her throat. It is from this abysmal darkness that our woman has to be raised. Our honoured patriots have been straining every nerve for political emancipation. They have relegated social advancement to the background. They have to be painfully reminded of the doubt of the poet Shelley: Can man be free, if woman be a slave? Without women's elevation the progress of man, politically, socially, and even economically, can only be lop-sided and insecure.

Can we not end this once for all? Can we not raise our sisters from this chaos and bring them out from behind the Purdah into the light of knowledge and culture? It is the duty of this Conference definitely to give some answer as to the question how this is to be done. The women of Turkey broke from these bonds: so can we. The young call for us to help them to throw off these shackles, to rescue them from this obsolete and pernicious custom. If we can make our needs known, if we women of India can speak with one voice, the Government of India, and the Governments of the Indian States will come to our aid. It is for us to arouse such public opinion, such public support that the few who would oppose would be overwhelmed.

EMANCIPATION OF WOMEN.

It is pleasing to watch the signs of the general awakening of interest in the public mind throughout the country in the cause of the advancement and emancipation of women. During the last year or two, women have made rapid progress in various fields. They have not only secured the municipal franchise, but have also now got the right to vote for the legislatures, while in some provinces they are themselves eligible for election as members of

the Councils. The Punjab, considered to be one of the most backward provinces in connection with the status of women, has set an example by returning the first lady member in the Provincial Legislature. And Madras, another stronghold of conservatism, has in Dr. Muthu Laxmi Ammal, the first nominated lady member of a Legislative Council. A very noteworthy feature of this achievement, in contrast with the experience of other countries, has been the sincere co-operation of men and the absence of any very serious opposition from the sterner sex. There has also been an important advance in connection with the social legislation affecting women in the direction of the age of consent, the protection of women, the position of women in industries, and in the organisation of vigilance and rescue work.

EDUCATION OF WOMEN.

In the field of education, especially higher education, there have been some brilliant achievements in individual instances in arts, law, medicine and other faculties. But stray individual achievements, however brilliant, cannot make up for the lack of general and well-ordered advancement of women in the country, in the matter of primary and secondary education.

What a vast leeway we have to make up in the educational advancement of our women can be easily demonstrated by a glance at the statistical figures I venture to place before you. The following table shows the percentage of literacy among men and women in several typical areas I have selected for comparison:—

	Male.	Female.
1. India	139	21 per thousand.
2. Mysore	143	22
3. Bombay Presidency.	157	27
4. Baroda	240	47
5. Cochin	317	115
6. Travancore	380	173

Some very backward parts give even more disappointing results.

	Male.	Female.
1. Kashmir	46	3 per thousand.
2. Behar... ..	96	6
3. Central India...	65	7
4. Hyderabad	57	8
5. C. P.	87	9

There is, however, a silver lining to this cloud, provided by a comparatively higher percentage of literacy among the age groups 10—15 and 15—20. Girls in these groups are the potential mothers of the next generation, and a markedly high percentage amongst the girls of these ages is a sure evidence of the greater attention that has been paid to the education of girls as compared with adults. While the general ratio of literacy for the whole of India amongst women is 21 per thousand, that in the age group 10—15 is 28, and 15—20, 36.

The figures for the higher education of women are, however, very disappointing. Literacy in English is the only available test to-day for the secondary or higher education of women, and there we find that only 13 out of every ten thousand women have received the benefits of secondary education. The very slow progress of women in the field of secondary education and the causes that have led to this lamentable state of affairs constitute some of the most important questions that our Conference will be called upon to consider.

Let us not forget that though we may come to sound conclusions, and pass wise resolutions as to what should be done, it will require many years of organisation to set things in practice, and without doubt not a little expenditure. There is scope here for private benefactions, but they will be able to touch only the fringe of the matter. There is need, not only of coming to right views on female education, but also of persistent and untiring insistence, in season and out of season, that those responsible for the administration of education shall carry them out. Of the sympathy and support of the highest officials of Government, and of

the Rulers of the Indian States, there should be no doubt. Sir Malcolm Hailey, to mention one eminent example, has expressed his willingness to support the demand for greater facilities for the education of girls and women.

PHYSICAL CULTURE FOR WOMEN.

The steadily deteriorating physique of Indian women has received the attention of the public only during very recent times. It is a simple thing to say that girls should receive physical training: it is not anything like so simple to decide on the actual forms it should take. It is here that sound knowledge is needed to come to sound conclusions, knowledge of feminine physiology and feminine psychology. With such knowledge there must be actual experience of the effects of different forms of exercise. It is to the details of this subject that I would ask the members of this Conference to give attention. Physical culture should bring not only firmness of body, but a vigour, a freedom, a joyfulness of spirit.

CO-EDUCATION OF THE SEXES.

The subject of the co-education of the sexes is all too frequently misunderstood. It must be admitted that the separation of the sexes is in itself artificial. It also has very great disadvantages, leading to ignorance and to false ideas as to the nature and qualities of the other sex. In the family, boys and girls grow up and play together, and it seems the only natural thing that they should do so in schools. But there is a great difficulty, which arises in later stages. Not only do the relative rates of development differ, the girls advancing physically and mentally more rapidly than the boys, but there are distinct differences of functions and of mentality. In spite, therefore, of the disadvantages of separation, it does seem necessary that for some period in their education the sexes shall be apart in order that they may be prepared for their different tasks in life. Separation is also required in order that the particular type of mind, of personality, of culture, which constitutes the attraction of womanhood, may be

developed. Education ought not to be a process by which the particular qualities and excellences with which Nature has endowed us shall be ignored or suppressed. It is just as fundamental a part of the task of education to develop the special capacities and virtues of womanhood as to give her the training for participation in general culture. There is thus a definite need for separate schools and colleges for girls and women, in which the life, and not merely the courses of study, shall have reference to the nature of the pupils and the character of the women we wish to cultivate.

Here I find a difficulty of no small dimensions, which concerns us immensely in this Conference. The majority of women at present occupied with the problems of female education have had their education along lines laid down by men. That is still the kind of education available in our girls' schools and in our Universities. The great difficulty is to attain sufficient freedom of judgment from the bias this kind of education has given. I would urge you to try to obtain a really distinctive point of view, not allowing your judgment to be warped by existing conditions or by the type of education you have yourself received. That is indeed a difficult task: do not believe that is an impossible one.

WANTED DEFINITE PROPOSALS.

I would urge you to face the real difficulties of the details of the education of girls and women. The time has gone for the mere reiteration of the platitudes that girls should have a knowledge of personal hygiene, of domestic economy, of child welfare, and a training in the appreciation of the beautiful, and the practice of the arts of music, singing, drawing and painting. That the demand for these must be louder and louder until there is a vigorous and widespread movement is indeed necessary. But such mere reiteration is not enough. What is essential is definite detailed proposals. What is essential is a genuine study of these things as found in the conditions and circumstances and inspired by the ideals of Indian

INDIAN EDUCATION IN 1926.*

By Prof. P. SESHADRI, M.A.

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THE year which has just closed was not very eventful in the world of Indian education, but it may be useful to chronicle some of the educational activities during the period in various parts of the country. The fact that education is a "transferred" and "provincial" subject has stood in the way of some useful activity on the part of the Government of India itself. Some very effective steps have been taken during the year towards the expansion of the Indian educational system, by the opening of new facilities so as to make it self-contained in an increasing measure. It will be remembered that such a recommendation was made a few years back by the Lord Lytton Committee on Indian students in England. The establishment of the School of Mines at Dhanbad; the raising of the status of the Forest Research Institute at Dehra Dun; the proposals for expanding the research work at Pusa and opening facilities for naval training to Indian students—these are among the evidences of advance in the direction. It may also be hoped that the work of the Skeen Committee on military training for Indians and the Royal Agricultural Commission may also result in some useful educational developments.

Proceeding to individual provinces, special reference must be made to the Punjab where an effective programme of educational expansion and consolidation is being pushed through with conspicuous success. The

* An Address delivered to the All-India Teachers' Federation at the Wheeler Senate House, Patna, on the 30th December, 1926.

percentage of school-going population has shown considerable increase; a number of adult education centres have been added to the existing number; arrangements have been made for 1600 village libraries in charge of school-masters; progress is being made with the scheme of opening further Intermediate Colleges, and backward areas are being encouraged to fall into line with the rest of the province by specially liberal rules of Grant-in-Aid.

The most notable educational event in the United Provinces during the year was the passing of the Agra University Bill. The establishment of the additional University will, it is hoped, draw forth some local patriotism and add considerably to the existing facilities in the Provinces. However much one may feel that an affiliating University of the type proposed to be set up at Agra is somewhat of an anachronism, there is no denying the fact that it is coming into existence in response to a wide-spread demand in the province and it will also enable Allahabad to become a real unitary and residential University. The Universities of Benares and Aligarh received additional financial assistance from the Government of India during the year, enabling the former to work towards the wiping off of its debt, and the latter to consider the opening of new developments. The Benares Hindu University also received the splendid benefaction of two lakhs of rupees from His Highness the Gaekwar of Baroda for the building of the University Library, while the Aligarh University has also the promise of a sum of three lakhs of rupees from His Highness the Nawab of Bhopal for the establishment of a much-needed College of Science at the University. The discontent which found expression in the

Provinces, with regard to the effects of the new scheme of Intermediate education, was responsible for the appointment of a Committee by the local Government to consider the improvements which may be introduced into the High Schools and Intermediate Colleges within the provisions of the present High School and Intermediate Act. Improvements have been made in some matters relating to Secondary education, two of the most prominent of them being the appointment for schools of full-time Medical Inspectors by the Government in the bigger cities, and the proposal to enforce a written contract of service in an approved form to prevent friction between teachers and the management.

Among the notable events in the Province of Bihar and Orissa is the settlement, during the year, of the long-standing dispute regarding the shifting of the University to a site quite outside the city. It was finally decided to concentrate educational activities round the present Patna Government College and work has already proceeded rapidly with regard to the establishment of the Medical and the Engineering Colleges which are rapidly getting into working order. They will go a long way in making the Province of Bihar and Orissa somewhat self-contained in matters of education, another step in the elevation of the area to a distinct administrative unit. There has been steady progress in the expansion of Elementary education, particularly in the education of the depressed classes, the schools for them having more than doubled themselves within the last year or so. The decision to build a separate historical museum at Patna which is now being housed in the High Court buildings is also worthy of mention. It is interesting to

note that an idea is also afoot for a separate University for Orissa which can legitimately claim an institution of the kind in view of its being a distinct linguistic area.

In the Province of Bengal things are looking up. The differences which marred the relationship between the Government and the University have been composed and something has already been done for improving the low academic standards—a matter in which the University has legitimately come in for considerable adverse criticism in recent years. The University has also begun to take some steps in improving the affiliated High Schools whose glaring inefficiency has prevented the establishment of higher education on sound lines. Insistence on physical training, improvement in the teaching of English and other matters have claimed some useful attention. The University is also trying to regulate the proper management of Secondary Schools by laying down a standard constitution for their managements, ensuring in some measure, the prevalence of expert academic opinion, the voice of the Headmaster and the teachers concerned. The establishment by Government of a separate college for Muhammadans is another interesting event.

Sir Harcourt Butler's regime has made itself felt in educational matters. The differences between the sponsors of the 'national' educational movement and the recognised educational system of the province have been composed and the wanderers have come back into the orthodox fold, probably sadder and wiser for their short experience of separation and revolt. The strengthening of the University of Rangoon is proceeding rapidly. Thanks to the traditional system of monastic education for elementary pupils,

life. A mere importation of ideas of domestic economy, for example, from the West which have their application and value there, may do more harm than good. Unless you, leaders of this movement for reform, unless you, pioneers in this renaissance of Indian womanhood, yourselves take up these investigations, writing the necessary books, and not merely talking of what should be done; unless you do this, our discussions here are likely to be largely vain. It is this question of details that needs attention now. And these details are differentiated on all sides. Viewed from the standpoint of the different types of character which we would have developed in our sons and our daughters, our men and our women, there should be differences even in the kinds of literature which predominate on one side and on the other. And should we not recognise that there are equally fundamental differences in other spheres? Does the same type of music appeal to men and to women? Should it so appeal? Are the phases of history which inspire men equally able to inspire women? Or, are there things in history which should naturally be emphasised more for one sex and others for the other? Do not let us fear criticisms of such suggestions. Let us not be afraid to exaggerate, if that is necessary for the present to break down the system of education which does not do justice to the distinctive qualities of womanhood.

COMPULSORY PRIMARY EDUCATION.

Most of the local Conferences held preparatory to this All-India Conference have recommended the universal enforcement of primary education both for boys and for girls. Such a measure has been in force for a short time in some parts of British India, and for a much longer time in some of the Indian States. I believe it is now too late in the day to question the desirability of compulsion. What the Conference has to consider is not the necessity of such a measure but the ways of removing the difficulties in the application of an educational policy which we all

desire. What is needed for the success of this measure is active and persistent propaganda amongst the women, and I feel that local organisations under the guidance of a Central Women's League could do a great deal in this direction.

NEED FOR A TRAINING COLLEGE FOR WOMEN TEACHERS.

How few will deny the justice of what we contend: how few would not wish that a genuine education for women could be widespread in this land! And yet in the minds of many parents, and also of many educationists, there looms a dark shadow of doubt. They question the economic value of the education which they think we propose. This economic question is a real one. In India, even for boys and men, the need for special training for vocations and professions, as distinct from preparation for the ordinary Matriculation and B.A. degree examinations, is only just being seriously considered. That in fact constitutes one of the main reasons for the establishment of new Universities on modern lines. But, unfortunately, there is a tendency to retard, even to oppose, urgent reforms in women's education because it is believed that for women's education to have economic value it must be on the same lines as that of men. If this is not shown to be false, we shall never advance along the lines I have been trying to indicate. But, we may show it to be false: we must show it to be false. That should be one net gain of this Conference. If our girls' education is to be on other lines, the education of those who are to teach them must be on other lines. I can conceive no way in which Lady Irwin could assist in the progress and advance of Indian womanhood, more than in using her capacities to obtain the establishment of a really efficient Training College for Women Teachers, which will train women for the task of the rebirth, the regeneration of the Indian education for women and girls. With such a Training College inspired by the high ideals we have before us in our religion and in our history, and such as we endeavour

our in this Conference to make clear to ourselves in all their details, we shall have embarked upon a really important practical step for the achievement of our aims. Let us show further that there are many vocations and professions for which women, and women alone, are really suited. Let us avoid that natural result of a masculine type of education for women, that women compete in an unfair because unequal, fight for professions for which in the end it cannot be denied that men are far more suited.

RIGHTS OF INHERITANCE AND PROPERTY FOR WOMEN.

We must not let this economic question warp our views on the subject of women's education. But we may and should ask ourselves whether the economic status of woman does not call for courageous utterance and continued effort on our part. A Conference such as this, a Conference of educated women, a Conference which knows that already women have some degree of franchise in this country, a Conference which knows that already there are women upon political bodies, such a Conference must at least register its emphatic opinion that women should not only be able to hold property in their own right, but have their due claim on the property of the family. That on his death a wife, because of the anger or mere whim of the husband, may be left with a beggarly pittance, while others enter into his property who may have done little or nothing for him, is injustice too great for words. Provided that there has been no legal separation on her fault, the woman should be guaranteed by law a certain definite proportion of the property left by the husband. The whole question of the legal status of women in marriage with regard to property, to divorce, the control of the children, and many other matters, should be systematically enquired into and proposals discussed. This Conference may think it advisable to appoint a small Committee to undertake the preliminaries of this work.

WOES OF INDIAN PRINCESSES.

In thinking, as we have been doing, and as we shall do in the course of our deliberations in this Conference, of Indian women in general, we are not able to devote our attention especially to any particular groups. There is, however, one group of women, small perhaps in numbers, who, once emancipated and soundly educated, could do an enormous amount for the women of India. I speak of the Indian princesses. The need of these princesses has been recently expressed in heart-rending terms in the columns of a Bombay daily paper. It must be taken as an indication of the position of the writer, that she has had to adopt such means to make it known. In expressing my sincere regret that this princess, who is unknown to me as she is to you, should have had to adopt this method of stating her grievances, I must nevertheless welcome the sign that at last the position of this group of women in our land is finding an expression. This Conference should state in no uncertain terms its views on the reforms needed in this direction.

CONCLUSION.

Fellow-workers in the cause of Indian womanhood, co-operators in the regeneration of the peoples and cultures of India, let us embark upon our discussions with the will to achieve a result which will accord with the highest demands of intelligence. Let us embark upon our discussions with a faith in our cause, and inspired by a hope which will never acknowledge defeat. Women of this Conference, women of India, unless with one voice you give expression to that which is essential for your welfare, of India in general, there can be little hope. Women of this Conference, women of India, now is the time to take up the banner of progress, the banner which must lead its followers to freedom, happiness and peace.

not much remains to be done in that direction, and Burma continues to keep its supremacy in percentage of literary as well as of school-going population.

Madras has added a University during the year, the Andhra University at Bezawada, which is trying to make an experiment in the direction of introducing the vernaculars as the media of instruction in University classes, subject-wise if not class-wise. A Committee has been appointed to consider the proposal. The principle of separate Universities for distinct linguistic areas has received further recognition by the appointment of a Committee by the Government to consider the question of a University for the Tamil districts, the Canarese and Malayalam areas also having voiced forth similar aspirations. Other notable developments are: special grants to public libraries; the appointment of a Committee to consider the present unemployment among the educated middle classes and the proposal to work up a programme of adult education, towards which the Government have received many valuable suggestions from the various public bodies they have consulted.

There is nothing particular to chronicle in the Presidency of Bombay where there has been stagnation, largely due to a weak Ministry more intent on communal preferences than on real educational progress. The premier Corporation of the Presidency went to the length of threatening the Government with a suit in the Law Courts for the non-fulfilment of promises made with regard to grants for the expansion of elementary education in the city. No action was unfortunately taken in the year on the excellent report on University Reform in Bombay.

issued by the Government Committee on the subject,

Among the minor administrative areas, space must be found, at least, for the Central Provinces where increased educational activities have manifested themselves in two directions. New facilities have been added for higher education, by the establishment of a well-equipped College of Science. A Committee has also been appointed by the Government to consider the steps which may be taken for speeding up the progress of female education in the province.

A word at least about some of the major Indian States. The authorities of the Osmania University consider the experiment of imparting even higher education through Urdu a great success and have decided upon opening even the Faculties of Engineering of Medicine on similar lines. A large sum of money has also been set apart for translating from English the necessary books for the purpose. There has been a reorganisation of University education in Mysore, in the direction of setting up Intermediate Colleges and introducing vocational subjects for various diplomas, under the auspices of the University. Baroda has just prepared a scheme for the establishment of a University for the State which may be expected to serve in some special measure the interests of all Guzerat. Owing to the fact that the administration of the State is now under a Regency, the Travancore University scheme has been held up.

The various All-India learned Societies and Conferences have been particularly active during the year. The Indian Science Congress, the Oriental Conference, the Indian Economic Conference, the Indian Philosophic

Congress, the Indian Historical Records Commission, the Inter-University Board and the All-India Teachers' Federation have all had successful sessions during the year. It will of course be conceded on all hands that they can all claim some educational work to their credit, particularly in the direction of rousing attention to the various branches of studies. This survey has necessarily been brief, but it is hoped, it has served to draw some attention to the various educational developments in the land. The fact need not be disguised that expectations have been entertained in many quarters that the coming of His Excellency Lord Irwin as Viceroy and Governor-General of India will see considerable activity in the educational world. It is of course too early yet for His Excellency to inaugurate any action, for he has not had much time to survey and understand the present conditions. It is hoped, however, the new year will witness definite and decisive action, and the approaching Conference at Delhi of Educational Ministers and Directors of Public Instruction may be taken as some indication of greater progress during the current year.

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THE TEACHING OF ENGLISH*

By MR. P. R. KRISHNASWAMI, M.A.,
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I NEED hardly point out to you the great importance of English in the curricula of studies at school and college. Language teaching, leading up logically to literary teaching, is of the greatest cultural value in education. Poetry has been described by Wordsworth as the breath and finer spirit of all knowledge. The study of a language and literature bears the same relation to other subjects in education. English, again, is a language fraught with immense values to us in India. Pseudo-patriotism should not interfere with a proper appreciation of this. If in England, French and German are considered part of a good education, and in Japan, two years ago, English was considered to be made a subject of compulsory study in schools, it need not be regarded as a sign of national degeneration in India to regard the study of English as of the greatest importance. The teacher of English in our schools can never succeed if, in the first place, he does not believe in the importance of English to us. In teaching English, the teacher can never be too well qualified for his task. From the time of initiating the children in simple nursery rhymes, or teaching them to compose sentences of three or four words, the teacher should be capable of a keen literary and aesthetic sense.

It has been pointed out that the three elements making for a teacher's success are personality, knowledge and method. In my

* This is the summary of a lecture recently delivered at the Native High School, Kumbakonam, under the auspices of the Teachers' Association of the school, with the Tanjore District Educational Officer, Mr. V. C. Srinivasacharya, in the chair.

opinion, method is the least important aspect of a teacher's work. Personality is everything, and the other two components are subordinate to it. A method is a convenient instrument in the hand of a capable teacher. It is good to study the principles underlying all methods, and teachers should not be prejudiced against methods, even because of the odiousness of the persons who have advocated them. Methods of teaching should be remembered, principally, to keep up a healthy balance in the actual work in the classes. If I went to a school where a too copious use of the vernacular was made in teaching English, I would recommend the direct method of teaching English. The principle of it is obvious. If I lived in Benares and my child was in the impressionable age of three to five or seven, she would pick up a knowledge of Hindi more thoroughly than she could by years of systematic study at Kumbakonam. The direct method has been realised in the world through many centuries. It is recorded of Montaigne that during his youth, no servant was permitted to speak within his hearing in any language other than Latin.

At the same time, I am aware of the absurd lengths to which the direct method is pursued in this country. An American lady once told me how in teaching a young Chettiar, she had once to explain to him the word 'hen-pecked.' She pointed to her own husband, and said: "This is a hen-pecked man." The Chettiar carried away the idea that every tall and handsome man was hen-pecked! I have also witnessed in a school the confident teaching of a European lady-teacher. The little girls were no doubt very active during the period the teaching went on, but I have realised, by questioning the

girls later, what abysmal depths of ignorance had been left untouched, chiefly because of the teacher's ignorance of the vernacular.

I should like to mention at any early stage, how necessary it is that a teacher should equip himself with a vast store of knowledge, before teaching a class. Many teachers are apt to be obsessed by the importance of the seal of education that they have themselves obtained. A man who becomes a B.A. can do so, with a very little stock of knowledge. Examinations encourage a certain amount of cheating on the part of the examinee, who will try to pass off as possessing more knowledge than he actually does, in the eye of the examiner. Apart from the defect of examinations as a system in evaluating the deserts of examinees, a teacher can never have a too magnified idea of his work of teaching. The teacher should possess an infinitely greater amount of knowledge than he has to impart to his pupils. Every hour of teaching is like an architectural performance. If the work is to be enduring and perfect, the foundation should be laid after deep digging. Elaborate scaffolding should be erected, and before the building is ready for use, the amount of leavings and rubbish, that has to be swept or washed away, will give an idea of the degree of art employed in raising the building. The amount of knowledge that has to be retailed to pupils in the classes of a school is in fact but a few scraps or bits. But these scraps or bits should be the well-chosen representatives of a whole, and to make them so, the teacher should himself master the whole.

Though it is the characteristic of every department of knowledge, that in the course of study, ever-increasing vistas of knowledge

open themselves to the student, it is superlatively true in the study of language or literature. This is no surprise, because as we have noted at the beginning, literature is like the breath and finer spirit of all knowledge. It is also realised that the more extensive one's acquaintance with literature, the more intensive is the mastery of one's style. Anoppeuliar responsibility of the teacher of English is that throughout the time of his teaching in the class-room, he has to be an example to his students. What a teacher *does* is always of greater importance to pupils than what he *preaches*. In an English class the teacher has to sustain himself throughout his period as a speaker of good English, of beautiful, well-constructed and well-rounded sentences. It is in this connection that we may remember the incalculable harm that may be produced by worthless teachers. A charlatan, Carlyle tells us, is always a great social or national evil. The world does not realise what harm charlatans can work in the field of education. Language or literature is an art, and every teacher, to be able to teach an art to his pupils, should himself be a good craftsman.

A very important matter to which I should draw the attention of the teachers of English, is the use of reference books. It is the lack of an adequate use of reference books, both on the part of the teacher and the pupil, that is responsible for a general failure in our education. Pupils rarely acquire a real taste for their subjects, they never acquire the methods of independent study, and they are never self-reliant. I met a boy, a nephew of mine, who had not been told by his teacher, while a poem by Keats on Meg Merriless had been taught, that Meg was a character in a novel of Scott's. The same boy was filled with

amazement when, in teaching him, I showed him the use of a modest group of half a dozen reference books: the Oxford Concise Dictionary, A Smaller Classical Dictionary, Beeton's Dictionary of Universal Biography, A Biographical Dictionary of English Literature, A Dictionary of Dates, and A Reader's Hand-book by Brewer.

Turning to the subject of teaching poetry, we may first note the necessity to master the subtleties of English pronunciation which affect the understanding of poetry somewhat more than that of prose. In teaching poetry, the teacher should possess more imagination than even in teaching prose. He should thoroughly enter into the mood of the poet, and try to impart it to the pupils unimpaired by irrelevant considerations. Poems should be read as a whole and appreciated thoroughly, before detailed analysis is attempted. The teacher cannot have a too aesthetic sense in teaching poetry. In an ideal world, aesthetics and ethics have an identical existence. But the teacher of English will have done his duty by doing justice to the aesthetic values of the works he teaches. Sheer joy and sheer energy and force have often such aesthetic values, that even ethical considerations may give a rude shock to them. The teacher should be mindful of this. It is a great pity that drawing and painting are not familiar occupations in schools and colleges; if they had been, the teaching of poetry could look to no better aids than the drawing of the images, so often suggested in poetry. I felt this keenly when doing the little piece entitled 'The Solitary Reaper' by Wordsworth, with an Intermediate class.

I may also speak a word about the teaching of composition. First, teachers do not realise the importance of correcting the exercises

DISCIPLINE.

By Prof. R. RAMANUJACHARI, M.A.,

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written by pupils. They are apt to console themselves sometimes that by suggesting the right method of writing an essay, they can exempt themselves from the work of correcting the defective productions of pupils. They are woefully mistaken in thinking so. In the experience of teachers, ignorance is realised to be not a negative quality, but something monstrously positive. The work of teaching has therefore to be two-fold, removing all that is bad, and planting all that is good. Nature revels in weedy growth, and the good teacher is ever ready with his knife, or axe, as the necessity arises, to cut off the weeds and prepare the soil to receive the good seed. Another point to be remembered in teaching composition is that the emphasis has to be laid not on words but on the thoughts or feelings underlying the work. The best way of teaching composition is to stimulate thinking and feeling in pupils. Innumerable adults in the world pass their time with never a thought or feeling on most things around them. It should be of great difficulty to kindle the creative faculty of the young!

The essential aim in teaching English or any other language or literature as such, should be to awaken the sense of beauty in the pupils. The teacher cannot resort to too many means to fulfil this aim. He should dress well, his manners should be engaging, his speaking should be perfect, and his work in the class-room should be one entire effect of beauty. If he can make every period of his work a splendid architectural design, he will also enter the class-room, happy like a bridegroom, as Wordsworth phrases it, in writing on the Happy Warrior.

THE success of a teacher is largely measured by the degree to which he is able to maintain discipline over the students entrusted to his care. His failure to get a hold over them is a clear indication of his unfitness for the job. If he is to make a name in his profession, he must possess certain intellectual and moral traits.

Students instinctively revere the teacher who is a scholar, whose mind is alive to ideas, and the range of whose interests is encyclopaedic. If the teacher could talk with tolerable familiarity, though not always with equal profundity, on any subject that may be presented to him, students deem it a pleasure to hear him. That the teacher is all-knowing is a popular superstition among the student world, and it must on no account be blown up. But where the teacher possesses a complete mastery of his own particular department unaccompanied by even a passing acquaintance with things beyond the confines of his own narrow province such spontaneous obedience is not forthcoming. Students are very exacting. They are slow in recognising the master's knowledge in certain spheres, but quick in perceiving gaps in his knowledge. And as it sometimes happens, the teacher is ill-equipped in what ought to be his forte. The lot of such a teacher is miserable indeed. He will now and then commit blunders and lay himself open to the scorn of even the most ignorant. When it is known that the teacher is imperfectly acquainted with his subject, the more intelligent of the boys will heckle him with questions.

Feb. 1927.]

DISCIPLINE.

Since lives of usefulness, happiness and virtue are launched while the heart is yet young, the supreme duty of the teacher consists in enabling his pupils to form proper ideals which may serve later as driving forces in their after-life. The object of the teacher ought to be rather to form tastes than simply to communicate knowledge. So long as the teacher evinces no interest in the subject he is handling, his lessons are bound to fail. He has most certainly forgotten the trite but true maxim, "Example is better than precept." The master's interest in a subject is contagious. Is it not too much to expect the boys to show an interest in the subject for which the teacher himself has none? The pedagogue who fancies that his work consists merely in imparting knowledge, and fails to keep himself abreast of the times, is not destined to distinguish himself in his profession. He becomes an easy prey to eating rust and mould. Never can he hope to inspire youthful minds and hearts with high and lofty ambitions. He is just the person who will foster indifference and callousness in the minds of young boys. The efficient teacher must necessarily polish his faculties and whet them to a keen edge with constant use.

Besides these intellectual qualities, the teacher must possess certain moral traits. While strictness is not an unwelcome trait in a teacher, undue laxity is undesirable. If a teacher is noted for his strictness, boys come to obey him. The majority of them are good-natured; they appreciate any severity that may be shown to the most mischievous. They themselves dislike him. If, on the contrary, they know that the master is over-indulgent, they are confident that they could have everything their own way. Now and then the class gets out of control and he tries to put

down indiscipline with a stern hand, but seldom meets with success, because students know full well that it is not in his nature to be exacting. On the whole, it may, with much truth, be asserted that the teacher who is strict in his dealings with boys is on the surer road to success than his lenient and less exacting colleague.

But this is not to say that the teacher should snatch at every opportunity to punish boys, that he should, in a word, be a bully. Unruly students cannot be driven by force for long. When punishments are set for all offences, great or small, they become the order of the day and lose their sting and can no longer remedy indiscipline for which alone they were originally instituted. Students get accustomed to this sort of petty teasing and become hardened sinners. A cast-iron discipline crushes the individuality of the child. The inherent capacities and potentialities of the normal child are nipped in the bud. In fact, it is responsible for the rise of repressive tendencies and the large proportion of morbid mental states. The aim of education must be to elicit, to educe and not to repress. The New Psychology has demonstrated beyond doubt that the youth must be brought up in an atmosphere of freedom. Mental and physical expansion is possible only in an atmosphere of light gaiety.

The teacher must be keen and alert. Little acts of mischief that go on in class must never pass unnoticed. Else their authors imagine that they have successfully deceived their master. The latter, however, is ill-advised if he takes serious notice of these trivial breaches of law. It is enough he merely indicates his displeasure by a look or gesture, or warning. The word of rebuke or the look of pleasure is far more effective than

corporal punishment, fine or any other penalty. Where repeated warnings have failed, he must come down with all his might. A very rare flash of railery does good.

An irascible temper lands the teacher in difficulties. Boys take a malignant pleasure in irritating him. Without passion, noise or violence, he must hold them in check. Occasions, nevertheless, arise when he has to be hard on the students. Immediately after the scene, he must return to his work with gravity and tranquillity, as if nothing at all happened.

Condemnation is by no means the only weapon available for the maintenance of discipline. Praise, when judiciously apportioned, is an invaluable ally in the hands of the teacher. The teacher must be quick to reward as well as to punish. A few words in praise of some really good work turned out by students invariably draw out the best in them. Praise is a great energy releaser. A little "appreciation" sometimes does quite as much good as all the conscientious "bringing up" in all the world. The exacting teacher who seldom evinces satisfaction at even the best performance must needs be less effective than one who never fails to give credit where it is due, and who is not afraid of fault-finding.

A greater use of judicious praise and appreciation may be attempted by the teacher, with advantage.

For a teacher to seek his superior's alliance in any crisis of insubordination is equivalent to confessing his own weakness. On the one side, the authorities quite naturally get the idea that that teacher, left to his own resources, is incapable of maintaining discipline. The greater the number of such applications for help, the greater are the chances of his own

expulsion. On the other side, the unruly boys gain the impression that the teacher is, just like themselves, at the mercy of the authorities, and that it is possible sometimes to approach them with a request to set aside punishments imposed on them by the teacher. Unless it is absolutely necessary, the teacher should not expect aid from the chief, for this would at once set him down as incompetent for his office.

Students always throw over timid teachers. Of all persons, the teacher cannot afford to be timid. With him timidity is a sin which should be cast off somehow. It is the outcome of excessive self-consciousness and diffidence. This is a very real difficulty, especially for the beginner. But avoiding worry and self-consciousness, if he goes ahead confidently, his difficulties are at an end.

No great gulf separates the teacher from students. It is healthy for both to mingle freely. Mutual love is the outcome of such a free mingling. The kind effluence of the teacher's love towards his pupils gets him from students willing obedience, born of genuine love, and not the obedience resulting from awe and fear. The teacher may talk freely to them on matters of general interest. But on certain topics, discrete reserve is indispensable. Here, as elsewhere, much depends on the discrimination of the teacher. He shall on no account allow freedom to degenerate into license. Real freedom implies discipline and only comes through that. By talking about the inadequacy of his pay, the indignities to which he is subjected by authorities, his relations with his colleagues and other similar topics, the teacher elicits the sympathy, sometimes even the contempt of boys rather than their respect.

FREEDOM IN EDUCATION.

By Mr. M. H. SYED, B.A., L.T.,
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(a) FREEDOM AS AN EDUCATIONAL END.

FREEDOM is of the spirit and from the spirit alone cometh that life which frees both soul and body. 'Man is born free', i.e., potentially free by reason of his spiritual nature.

In no other sense could a human baby be said to be free, man is by nature a spiritual being and must be left on its own lines. So long as we go in fear of our own nature, so long as we dare not even know ourselves, our spiritual self, so long shall we fail to deal rightly with the problem of education. Only in the full light of true spiritual knowledge can we hope for the best results in education and in life. Therefore we should welcome every effort at spiritual investigation and be ready to receive light from whatever source it comes.

Let us now consider some of the more practical effects upon education of a faith in spiritual interpretation of life and in freedom as a spiritual value.

We must know that the child is sacred. So he must be studied and helped to develop after his kind, not be crushed out and superseded by some artificial substitute. In each child we recognise a spiritual self—a life force—and we must guard and tend it without any desire to interfere unduly. A child is free and we must set him free from the limitations of natural and human environment. If he is really to become a free self-governing individual, he must learn to act on his own initiative and even by his own mistakes.

The school affords a very necessary stage in the path to true freedom inasmuch as it

is a half way house between the home and the wide world.

Where self-government has been introduced into schools, it has been found that the consequent development of a common will for good order, reacts most favourably on the individual.

(b) FREEDOM AS A MEANS IN EDUCATION.

Earthly life needs the light of spiritual knowledge. True enlightenment and transmutation from ever less into ever more perfect powers should be the aim we set before the young. They need to learn the many-sided uses of life so that they may attain the full stature of the ideal man. It is our business to give them the right keys to life that they may understand and value it aright.

Freedom as a means in education implies belief in the spiritual basis of human life and by such faith alone is real education possible.

Man is a complex human being whose members must co-operate if there is to be peace and harmonious working. This very fact necessitates an atmosphere of freedom.

Both body and mind of a child can only develop rightly in an atmosphere of freedom because they are in essence spiritual. Children working freely show the beginnings of moral, artistic and intellectual taste and judgment often sounder than those of adults.

The idea of the school as a self-governing community has gained ground rapidly. The internal order and discipline of the school and the class are passing into the hands of the pupils themselves with the most satisfactory results. It is of special interest to note that where boys and girls are fully responsible, rules are often stricter, and penalties for infringement far severer than when the teachers are in control, showing that

there is no natural revolt against law and order when the necessity is rightly understood.

What the young particularly seem to resent is arbitrary interference with liberty. It is the sense of injustice that rankles.

(c) STAGES IN DEVELOPMENT.

There is still much that is vague and often erroneous in the popular view of the stages of development through which a human being passes.

From a practical educational point of view when we speak of stages of development, we refer to the gradual physical, psychical or mental powers, and the slow steps by which the ego or self emerges and assumes control.

The stages of intellectual development have been given here more attention than other aspects of the process.

Little children should learn through sense-experience before the age of seven. If the child is to learn to use his senses freely, he must do so just when the sense organs themselves are developing.

Madame Montessori had the right idea of just providing didactic material and leading the children to learn from it directly. Children under seven should have plenty of sense-experience and things must be presented to them in a living manner. The little child needs suitable material with which to occupy himself and peaceful surroundings in which to pursue his investigations. Small children are rarely troublesome or naughty if they have plenty with which to occupy themselves. A good deal of individual freedom should be given.

Parents ask when should a child be taught to read and are disappointed when told that there is no fixed age. It is better to wait

until the child feels the necessity of learning. There is always danger in learning to read too early, because the first years should be devoted to a first-hand study of environment. The right moment must be chosen. The same may be applied to writing, which should be preceded in time to drawing and probably both should come before reading.

While early memorizing should be discouraged, there comes a time from about 7 to 12 when learning by heart is not only easy but suitable. It is not however natural for children to learn by heart when sitting at desk. Room to move about, best of all in a garden, facilitates memorising which reacts favourably also on bodily development. We must not hinder a child's development. He should be allowed to ripen at his own rate, and should not be deprived of the rights of childhood.

It is obvious that the task of the teacher who seeks to open up the path of freedom to the children is not a light one. It calls for knowledge, sympathy, understanding and a kind of creative artistic activity so that no phase of the individual child's development shall be unrecognised or misunderstood.

From about the 9th year to the age of puberty, there comes a sense of separate personality, a certain fear of life, and a feeling of being alone and needing guidance, and also demand for some one to serve as leader. With the approach of puberty a more sentimental devotion is often observable, a growing shyness, sometimes marked by unnatural boisterousness. Now more than ever youth requires some trusted friend to whom to turn for counsel.

Parents lose much by not realising that their relationship to their sons and daughters should gradually change from the age of twelve upwards. The young should find their best friends in their parents,

On the intellectual side, the stage of development, reached roughly between 12 and 15 is of extreme importance. The freshness and keenness of interest in knowledge of all kinds, probably never recurs. To keep pupils at this stage to the study of grammar and form alone is a great mistake. The growing emotional side of life requires an outlet suitably found in connection with literature. Nothing perhaps helps so much to guide the emotional life on its right lines as the reading of good literature. The indirect effects of a proper study of history and literature are potent for good.

Direct didactic moral teaching will be resented but debate in which the pupils should speak much more than the teacher is of immense value in clarifying ideas and bringing about mutual understanding.

It is specially in later years of adolescence when through the gradual development of the physical and mental life, the true spiritual self begins to function, that it is important for youth to have for realising the responsibilities for freedom.

If at every stage, the proper activities are set free, developed and brought under control, if we have given the child the keys of knowledge and have opened his eyes to the good, we have at least set him free on the free path of spiritual attainment.

A further stage of self-consciousness is reached when the formation of a strong friendship becomes possible. The term of friendship includes all worthy affection and sympathy between pupils of about the same age and also between those of differing years, e.g., friendship between teacher and pupil. The need for friendship is so great that it is unwise to make artificial barriers against the formation of such bonds. It must always

mean worry and anxiety for the parent or teacher to see apparently very unsuitable friendships being formed, but usually the self knows its own needs best at this stage, and if really unsuitable, the friends will drift apart again naturally.

There is another matter upon which also we can only touch, viz., how far the difference of sex affects development.

It is noticeable how girls seem suddenly to become intellectually maturer than boys and how their rate of work quickens. They can do more intellectual work than a boy, in a given time, but it naturally follows that they should not work for so many hours. If they do, they either become overstrained or in self-defence fall into a slack way of working, never putting forth all their strength, and this habit grows and has a detrimental effect in later life. It is more economical of mental and physical strength to work at full pressure for the necessary time and no more, thus leading more time for rest and recreation. To obtain the best intellectual results she must be allowed to pack in as much work as possible when fresh and fit and to slack off at times.

(d) THE FREEDOM OF THE TEACHER.

The problem of the teacher is one of the most difficult in connection with present day education. The supply of teachers is inadequate and the quality extremely uneven.

Teaching is still spoken of as the noblest of professions but how few enter it, if they can do anything else. 'We can always fall back upon teaching if other things fail' is a remark too often heard.

There is a general idea abroad that teachers lack scope and freedom and this tells more than anything against drawing the best types of men and women into the profession. The

financial outlook affords little scope for improvement by individual efforts. Scales of salaries and hard and fast rules control the monetary reward of educational labour and there are many such conflicting limitations in the teaching profession as popular opinion, professional etiquette, etc. We often lose sight of the fact that the teacher's best work is creative. We cannot imagine a creative artist doing his work well without a large measure of freedom.

We must see that the teacher brings to his task all that knowledge and skill which he will need, but he must be left free to see for himself and to use his knowledge and skill in the light of his vision. But we have as little faith in teachers as we have in children and are afraid to give them freedom. This lack of mutual trust and confidence is at the root of many of our educational difficulties.

The teaching profession has usually been presented to the notice of those leaving college, mainly as a means of earning one's living instead of the pursuit of a fine art or creative work of the highest order. The prison walls of routine and time-tables, of syllabuses and examinations, of rules and methods, close round those young enthusiasts who take up teaching and even parents chill the ardent life within. They cease to feel the impulse of free creative activity.

Our chief hope for the future lies in increasing the number of those teachers who can attain some measure of inner and outer freedom and our care should be to forward their work in every possible way.

(c) THE TRAINING OF TEACHERS.

A teacher's training course should consist not only in studies of theory, history and methods of education, combined with teaching

practice, but that even more stress should be laid on the art of teaching.

Art and practice have too often been confused or at least art has been regarded as practice combined with certain helps and teaching devices. What we need to get clearly before our minds is that teaching is not only an art, but a fine art. In education therefore, more depends upon true insight than on method; more upon the teacher than upon his tools and a sure technique must be based upon real knowledge of human nature including his own.

Lectures and opportunities for practical teaching do not constitute even the most important and valuable part of the training course. It is rather what a student does for himself working freely upon his whole nature, measuring himself with others bent on the same endeavour, co-operating with them in a friendly give and take, that becomes his lasting profession.

He may forget the lectures, even the practice in teaching may do little more than give him some confidence in facing a class, but if he has found himself, has learned to know his own qualities of heart and intellect and has set about in earnest, the task of developing his latent powers, then the time spent in training will bear permanent fruit.

If freedom is regarded as desirable, both as an end and a means in education, it is clear that it is not only important that the teacher shall be as free as possible externally, it is of still greater importance that he shall have inner freedom which implies full development, ripeness, and complete self-control.

Only those who are free themselves can lead others to freedom.

THE VAULT OF THE HEAVENS.

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THE wide expanse of space that envelopes the Earth on which we live is, as we very well know, strewn with objects of varying degrees of brilliance and size which cannot but attract the attention of even the most absent-minded observer and inspire him with a sense of wonder, if not of awe. This huge expanse is technically called the 'Heavens' and should be distinguished from the Heaven spoken of in our religion and associated with notions of virtue, happiness, etc. If you have ever watched the Heavens continuously or at intervals for a few hours during any night you would have noticed how the little sparkling bodies turn round us, coming again and again to the same position in the sky, though not relatively to us, every twenty-four hours.

In the ancient view, the Heavens were regarded as an immense revolving dome with the stars fixed on the inner surface. The Sun and the Moon were deemed mere lamps for the day and the night respectively, and were either deities themselves or under the control of special deities ordaining their regular course in the Heavens. Fantastic myths sprang to explain how the Earth and the vaulted heavens bespangled with stars were kept in their position without colliding with one another. In our Puranas, for example, the Earth is imagined to be supported by four elephants standing on the back of a gigantic tortoise which itself floated on a primeval ocean.

Later on vague glimmerings of the true state of things began to dawn upon men. Philosophers began to conceive that the Earth was at the centre of all things, its shape was spherical and that it was unsupported by any

thing and supported in its position by its own *Sakti*. Bhaskara says: "The spherical mass of the Earth composed of the five elements, earth, air, water, ether, fire, stands still in space unsupported by anything and supported by its own *Vis-Viva** enveloped in order by the circular orbits of the Moon, Mercury, Venus, the Sun, Mars, Jupiter, Saturn, and beyond all these the firmament of stars."

This Theory of the Universe enunciated by Bhaskara is known by the name of the Ptolemaic System because it is believed to be first set forth by Claudius Ptolemæus Pelusinus, better known as Ptolemy, of Alexandria (150 A.D.), one of the most famous of the ancient astronomers. The Ptolemaic Theory appealed strongly to the selfish nature of man and it was very flattering for him to believe that the Earth on which he lives was the most important body in nature and was the pivot as it were, on which all things revolved. So, the Ptolemaic System persisted unshaken for about one thousand four hundred years after the death of Ptolemy.

Only about four hundred years ago, that is, a hundred years before Newton, a Prussian astronomer Nicholas Copernicus (1473-1543), dethroned the Earth from her central position and substituted the Sun in her place. He propounded that the Sun is the centre about which circle in order the planets, Mercury,

* The earth is maintained in equilibrium by its own *vis-viva* in much the same way as a stone tied to the end of a string and kept whirling round and round fast enough is kept in position the string remaining tight; if the speed of whirling be increased, the string may snap and the body thrown off, while if decreased, the string becomes limp and the stone falls backwards and strikes our hand. If the earth revolves a little faster than now, it is likely to wander away from the Sun and rush away into space, probably collide with Mars and compound with it into a huger planet, while if it should revolve a little slower, the earth will tend to fall towards the Sun and probably strike Venus. In fact a similar phenomenon is actually happening in the case of one of Jupiter's satellites.

Venus, the Earth, Mars, Jupiter, Saturn and that at an immense distance in the depths of space lie irregularly scattered all the stars. This is the Modern or Copernican Theory of the Universe.

The Sun and his attendant planets constitute what is known as the Solar System. The two planets, Mercury and Venus, revolving within the Earth's orbit are called inferior planets, while the others which revolve outside the Earth's orbit are called superior planets. The five planets, Mercury, Venus, Mars, Jupiter, and Saturn were the only ones known to us for a very long time; and indeed all our astronomical knowledge until recently, i.e., about a hundred and fifty years ago, did not extend beyond the orbit of Saturn.* The deep slumber that astronomy was enjoying was just broken on the 15th March 1781, when a famous astronomer Sir William Herschel accidentally discovered a celestial body while looking through his telescope in the Constellation Mithuna (the twins), which he first mistook for a comet. Later observations of its movements showed it to be a new planet belonging to the Solar family. This new planet, the first planet discovered by the power of the telescope, has since become known to Science under the name of Uranus and gave fresh hopes to astronomers of discovering other planets in the immensities beyond. It is worthy of note that the discovery of the new planet Uranus pushes the limit of the solar system to twice its former extent.

Long before Herschel, an astronomer Bode had noticed the following relation between

* Here I must note that we should congratulate ourselves on the ignorance of the ancients in the matter of planets. With more planets our weeks will be unduly long and astrology more complicated than ever.

the relative distances of the observed planets from the Sun. Write down the series 0, 3, 6, 12, 24, 48, 96 and add 4 to each and it becomes 4, 7, 10, 16, 28, 52, 100. These numbers with the exception of 28 are sensibly proportional to the distances of the planets from the Sun.

This law was closely confirmed by the new planet Uranus while it showed a wide gap between the planets Mars and Jupiter. On the first day of the last century, the Italian astronomer Piazzi at Palermo solved this mystery of the gap by discovering a small body revolving in this void between Mars and Jupiter. During the next few years three more such small bodies were found and about fifty years later a number of such small bodies were observed, to which the name 'Asteroids' or 'Planetoids' was given and up to now so many as six hundred have been noticed in the space between Mars and Jupiter, that the discovery of a new moving planet has become a thankless task. In fact the numbers have become so great that the discoverers had to break the old rule that every minor planet should have a female name selected from classical mythology, because the classical dictionaries soon became exhausted. So they had to give these minor planets the names of their sweethearts and girl babies. Later, the naming became so burdensome that the discoverers neglected the *namakaranam* ceremony and this resulted in the threat of the German Commission that if a discoverer failed to name his discovery within a given time, they would do it for him.

About eight decades ago, the outer boundary of the Solar System was again extended half as much again by the discovery of another great planet revolving beyond

Uranus. But the discovery of this planet was not due to the telescope as in the case of the other planets discovered so far, but was purely the result of a mathematical calculation. Two famous mathematicians, one, a Cambridge mathematician Adams, and the other, a French astronomer Le Verrier, were simultaneously engaged independently in the mathematical investigations of the position of some celestial body on account of whose attraction the planet Uranus was being dislocated from its usual (i.e., calculated) position in the orbit round the Sun. The story goes that Adams had completed his investigations first, but unfortunately the Cambridge sky prevented him from verifying his results by direct observation with the telescope and winning the prize and honour which the British mathematicians claim as his rightful due. As a matter of fact the prize and the honour were both snatched by the Frenchman Le Verrier who predicted the place of Neptune much more accurately in the sky and directed the observer Galle at Berlin to observe that part of the sky and compare his observations with the Berlin star-chart. As a result of this, on September 23, 1846, an eighth magnitude star not given in the chart was noted through the telescope and as it had changed its place by the next night, it was inferred to be a planet. Poor Professor Challis, the Director of the Cambridge Observatory, had no star-map ready to hand and was obliged therefore to make a laborious calculation of the positions of the stars in the suspected region in the sky and it was six days too late when he succeeded in finding the planet. This is the romance connected with the planet Neptune. Later on it was found that some of the earlier astronomers such as Lalande in France had actually observed the planet Neptune but had mistaken

it for a star. Indeed the idea that it might be a planet had never entered their heads. Neptune is invisible to the naked eye, while Uranus is just at the limit of visibility.

About the beginning of this century, another important planetary discovery was made. A very small planet about 20 miles in diameter which has since received the name Eros was observed to revolve in the space between our Earth and Mars. This is the nearest of the superior planets to the Earth. This also was discovered not by a telescopic examination of the heavens but as the direct result of a difficult calculation and was revealed by the impress of light upon a photographic plate which had been exposed for some length of time to the starry sky. Thus we notice how photography is employed in modern astronomy to find out tiny celestial bodies. Next to the Moon, Eros is our nearest neighbour and is subject to marked variations in brightness which have not yet been satisfactorily accounted for. Insignificant as this little body is, it is of great importance in astronomical calculations. In fact it furnishes the best method known till now of calculating the distance of the Sun from the Earth. This completes the list of planets known to us till now. Whether others exist, time alone must show. Two or three planets are suspected to revolve even beyond Neptune. These extra-Neptunian planets, if any, will be discovered some day, not by means of any telescope or mathematical prediction but by direct comparison of two photographs like the planet Eros. A French doctor once asserted that he had seen a planet actually revolving between the Sun and Mercury but no astronomer has ever verified it yet. This is called the riddle of the 'intra-Mercurial planet' that is, a planet which circulates within the path followed by Mercury. The best opportunity

for observing it will be when there is a total eclipse of the Sun. A total eclipse of the Sun takes place when the Moon comes between the Sun and the Earth in such a manner that it entirely cuts off the sun-light for a few minutes from a portion of the Earth's surface. The sight of a total eclipse is one of the grandest and most awe-inspiring sights which one can ever witness. In fact it is reported that an American woman actually died of fright on observing the total eclipse of 1869. During a total eclipse there is a pale unearthly appearance pervading all things, the temperature falls noticeably and nature seems to hold its breath in expectation of something unusual. The western side of the sky will assume an appearance dark and lowering as if a great rain-storm were approaching. This is due to the mighty shadow of the moon sweeping rapidly along with a terrific rate of 30 miles per minute or 1800 miles per hour. This is just the moment for astronomers to find out with their telescopes the existence of any objects near the Sun, which in other circumstances would have been hid under the Sun's glare. But as the period of total eclipse is so short that the maximum time that it lasts is only five or six minutes, the astronomers have to make a very hurried search of the region close around the Sun. As the total eclipse at one place on the Earth's surface need not be total at other places but only partial, astronomers divide themselves into parties known as eclipse parties and arrange expeditions to those parts of the Earth's surface where the eclipse is seen as a total one. For example, recently, to observe the total eclipse of 10th of September 1923, astronomers flocked to the astronomical stations near the south of North America, and north of South America where the eclipse was seen as total.*

* Fortunately for us, with the help of mathematics we can locate beforehand the places where an eclipse can be seen as a total one.

To the serious observer of a total solar eclipse, every instant is extremely precious. The rarity of the phenomenon, and its short duration coupled with the crowding of many distinct observations into that limited time tend to hurry the minds of the observing astronomers so much that they sometimes miss many salient points, like some nervous candidates at a public examination. To avoid such omissions, constant rehearsals are made by an eclipse party, of the points they have to observe and investigate. Though every precaution be taken, weather may come in the way, a particle of cloud may upset all the plans of astronomers and all their labour may become futile, so that success is rather a lottery. Thus it is that the riddle of the intra-Mercurial planet still remains unsolved, though many total eclipses have come and gone since the day the French doctor announced his fancy.

Next in importance to the planets in the Solar System come the relatively small and secondary bodies known as satellites or attendants. These bodies move closely round other bodies bigger than themselves called primaries. A planet and its satellites are but a miniature edition of the solar system with this difference that a planet revolves about a burning and self-luminous sphere such as the Sun, while the body about which a satellite revolves is not self-luminous but shines like Venus and Jupiter by borrowed light, by the light of the Sun falling upon it. Regarding the distribution of the satellites round the several planets, there seems to be no regularity. For example, Mercury and Venus have no satellites, the Earth has one, Mars has two tiny ones, Jupiter seven (probably eight) Saturn ten, Uranus four and Neptune one. It is extremely probable that there are more Uranian and Neptunian satellites than those

noted here, but on account of their immense distance from us, even the biggest telescopes of to-day can afford very little information about them. One conclusion however we may draw from the present distribution of the satellites, viz., that the nearness to the Sun is in some way unfavourable either to the production or to the continued existence of the satellites. The Sun being a much greater body than a planet and its attraction therefore much greater, it is more likely that another body coming between the Sun and the planet should revolve about the Sun instead of about the planet, and even if there should be a body revolving about the planet, its equilibrium may be so unstable, being attracted by such a big body as the Sun on the one side and such a small body as the planet on the other side, that a slight disturbance of the equilibrium due to some cause such as the coming of another celestial body like a comet near it, may tend to cut off the satellite from its primary and make it revolve round the Sun as another primary planet. Thus we should not wonder if the Moon, now a satellite of the Earth, should one day be so disturbed from its position that it no longer revolves about the Earth but begins to revolve round the Sun like Venus or Mercury. What I am saying is not mere fancy and I really do not wish that the readers should be deprived of the beautiful Moon, for, one of Jupiter's satellites has actually gone out of Jupiter's control and is trying to move round the Sun instead of round Jupiter and astronomers say that the satellite has come pretty near to succeeding. At present, however, it is describing a highly irregular curve, which does not repeat itself in the least and defies all the usual methods of calculation.

Besides the planets and their satellites, there are two other classes of bodies which belong

to the solar family—comets and meteors. Comets are filmy transparent bodies and describe extremely elongated orbits round the Sun, unlike the planets which are solid and opaque and describe more or less circular orbits. Indeed their paths are so elongated that some of them move very far beyond the known limits of the solar system and pass never to return at all or at any rate to return after so many thousands of years that we may, as well, say never. Some of the readers at least must be familiar with the splendid appearances of Halley's comet of 1910 whose tail stretched from the horizon to the zenith like a gigantic search-light. This comet takes its name from the astronomer, Edmund Halley, an intimate friend and admirer of Newton, who studied the motions of all the comets then known and in particular this comet, its periodicity and its previous history. The astronomers have a special reason to be grateful to Halley since he paid out of his own pocket for the publication of Newton's monumental work the *Principia*, when the Royal Society became a bankrupt, having expended all its funds in printing a great work on 'Fishes.' Halley showed how all the comets also move round the sun and calculated that the period, namely, the time of journey and recurrence of his comet was about 75 years, predicted its re-appearance in 1758 though he did not live to see it. This prediction of the appearance of a comet was the first of its kind in world's history. In fact the comet re-appeared in 1759, a little later than Halley had expected. This was due to some delay in the march of the comet on account of its passing through the gravitation-field of Jupiter. The action of Jupiter on the comet was just similar to this. If we slightly check the

arm of a person throwing a stone, a considerable change will be produced in the height to which the stone travels and in the interval before it strikes the ground.

We are indebted to the Chinese records for the ancient history of several comets. The Chinese gave accurately dated accounts of the courses of the several comets through the constellations and it is from these records that we can trace the visits of Halley's comet confidently so far back as 240 B.C., May 15.

The appearance of comets was always superstitiously associated with some unpleasant event such as war, or pestilence or death of some person of consequence. Every visit of Halley's comet was thus associated with some disaster or other on the Earth. To be charitable to the comets, one may put the matter the other way and say that the comets are particularly unfortunate in that whenever they come to visit the Earth, there is always some unpleasant event for them to witness. There was a great alarm in Rome when Halley's comet visited the Earth in 66 A.D. and again a thousand years later, it was seen when William the Conqueror was preparing to descend on the coast of England. People therefore called it William the Conqueror's star. Last time when it visited us, i.e., in 1910, a very wide-spread thunder-storm extended over a large part of Europe, but if it had appeared four years later, it would have definitely confirmed our superstitions by being associated with the great European War.

One fact that we may gather from Halley's comet is that the head at least of a comet is composed of solid matter, while the tail which is composed of gas and matter in a finely divided condition, is driven out from the Sun by repulsive forces considerably stronger

than gravity. This is why the tail of a comet is always away from the Sun.

Close connection has been found to exist between comets and meteors or shooting stars. Meteors are merely lumps of iron or stone travelling round the Sun in paths which in several cases coincide with those of comets, whence it is reasonably concluded that they are cometary debris. Many such lumps have actually fallen to the Earth and been examined. Many are preserved also in the museums. They mostly consist of iron but with a large amount of gas, chiefly hydrogen, shut up in them.

The heads of comets are supposed to consist of swarms of such meteoric masses. Their total weight being too small to keep together by their own attraction, each separate lump is really revolving in its own orbit round the Sun; but the orbits of all being the same, the comet appears to be held together for a long period. Thus Halley's comet has held together for over two thousand years but in time however, the differences of the attraction of the Sun and planets on different portions of the swarm may cause it to disintegrate and to become so widely dispersed that it may no longer be recognised as a comet. Such disturbances occur chiefly when a comet passes in the Sun's neighbourhood. Every time a comet passes near the Sun, it loses its stock of gas and when it has lost all its gas, it degenerates into a meteor swarm without any tail. Thus the life of a comet is very uncertain and we should not wonder if Halley's comet which has so happily or unhappily spent every seventy-sixth year with us for so many centuries should burst up or, by indisposition, be unable to pay us its next visit.

Let us now leave the solar system and take a flight into the immensities of space beyond,

astronomers tell us that our Earth, nay, the whole solar system, lies plunged in the midst of a great tangle of stars. We have seen that planets revolve round the Sun in more or less circular orbits at varying distances from him. A brief idea of these distances may be given now to enable one to compare them on one hand with the distances on the earth's surface, and on the other hand with the distances of the stars from us. The following are the average or mean distances of the Sun from the several planets:—

Mercury ...	36	$\times 10^6$	miles.
Venus ...	67	$\times 10^6$	"
Earth ...	93	$\times 10^6$	"
Mars ...	141½	$\times 10^6$	"
Jupiter ...	483	$\times 10^6$	"
Saturn ...	886	$\times 10^6$	"
Uranus ...	1782	$\times 10^6$	"
Neptune ...	2792	$\times 10^6$	"

But the nearest star, Alpha Centauri, a bright star that you see in the southern sky, is at a distance of 25,000,000,000,000 or 25×10^{12} miles from us. The circumference of the earth is only 25000 miles. Thus we see that while the distances on the earth's surface may be reckoned in thousands of miles, the inter-planetary distances should be reckoned in millions and the inter-stellar distances in billions of miles. But mere figures do not help us much in grasping the immensities of these distances. Let us have recourse to a concrete illustration. Let us imagine that we possess an aeroplane which can run continuously in all space at the great speed of 100 miles an hour without any accident. Let us first send it round the earth. Certainly ten days casual leave would be quite enough to finish the circuit. Next, let us send it to the Moon which is 240,000 miles from us. Now we will have to take a furlough of six months to go to the Moon and

come back. Again, let us send it still further afield to the Sun. Merely to reach the Sun, it will take 106 years. So there is no hope of our ever reaching the Sun with this, our corporal stuff. Granting that we have arrived at the Sun, we can complete a tour round it in about 3 years while we could complete a tour round the Earth in 10 days. This will give you an idea of the ratio of the diameters of the Sun and the Earth. The Sun's diameter is about 100 times as large as the Earth's. In volume the Sun is equivalent to about one million Earths.

Suppose, again that our aeroplane starts from the Sun and is made to run straight out to the known boundaries of the solar system, say, to Neptune. It will take 3000 years to traverse that distance. Thus to go to the known verge of the solar system and back, it will consume 6000 years, that is, almost the whole of historic time.

Now what about the great tangle of stars beyond? To reach the nearest star, Alpha Centauri, it will take us not thousands but millions of years. So we should think of a quicker conveyance than our aeroplane. The relativists have proved that the quickest traveller in Nature is light, that is to say, nothing can travel faster than light. Let us calculate what time light takes to travel to and from the starry regions. At the rate of 186000 miles a second, it has been calculated that it takes 4½ years for the light from the nearest star to reach us, while it takes only 8 minutes for the light from the Sun. From the Sun to Neptune it requires only about 4 hours (i.e., about the same time that a motor-car takes from Mysore to Bangalore) for light to travel, while our aeroplane has to trudge for 3000 years. Astronomers have agreed to estimate the distances of the stars

his knowledge of English but the S. S. L. C. student does not.

Again while an average student who passes the S. S. L. C. examination is only 16 years old, the corresponding student who leaves the Sanskrit High School for collegiate study is 20 years old and so the latter has a greater capacity to understand things in a more critical way than the former.

From 1908 to 1916, 40 students studied in this Sanskrit High School and out of them 17 came from other villages. Out of the 23 boys of the village, only 10 passed the Third Kachya of Vizianagar College, which corresponds to the ordinary Matriculation examination. From 1916 till 1925, 242 students entered the school, and out of them 116 were Amrataluru boys. Out of this total, the boys on the roll number 69 and so the rest have left the school.

The number of Amrataluru boys who entered the School:

Year	No. of boys entering.
1916	22
1917	15
1918	6
1919	11
1920	11
1921	14
1922	8
1923	18
1924	6
1925	5
	116

Out of these 116, those who are still studying number 34 and so the remaining 82 left the school at different stages.

Those who took their degree (Vidwan).	2
Those who failed in that exam.	... 2
Those who have completed one of the two parts	 2
Those who have passed the entrance exam.	 4
Those who failed in the entrance exam.	2
Those who left the school when in advanced classes	 15
Those who left when in elementary classes	 55

It is a remarkable fact that only 10 out of the 116 students who entered this school were Brahmins, the rest being Non-Brahmins, most of whom were Kammas. It was the first High School of its kind to admit Non-Brahmins as students and it carried on its policy for a long time in sacred isolation against the bitter opposition of Brahmins because it was managed from the very beginning by Kammas, who financed it and ran it most carefully. Many a time the local Brahmins were successful in making it so hot for the Brahmin teachers that they had to run away from the village. The Committee brought a Tamilian Pandit first and then many others who used to leave the school suddenly. Now it has become thoroughly established and Kammas of this village can boast of more Sanskrit Pandits than any other village in the district.

It is also an astonishing fact that whereas the number of students going in for English education from Nidubrolu has been falling, the number of students of Amrataluru, joining this school has been as can be seen from the above table on the whole stable. On the other hand the number of boys who have

gone for an English education has been extraordinarily small, though the Thurumella High School is only two miles from this village and the English educated are generally more respected than the Sanskrit Pandits. Here are the figures of the boys who went for English education. Forty-one went to the Thurumella High School, out of whom twenty were Brahmins and only 21 were Non-Brahmins. Again 23 boys discontinued their studies rather abruptly and there are only 18 who are still studying.

Out of all these boys, only one passed the Matriculation examination, 22 boys discontinued their studies after coming up to third and fourth forms, and out of the 18 who are still studying, only 3 are in the fourth, fifth and sixth forms, the rest being in the lower forms. There cannot be a greater contrast between the results of English education and Sanskrit education. To look at the subject purely from the point of view of the examinations, the students of the Sanskrit School have passed many more higher examinations than the English-educated boys. The above figures also show that there are more Brahmin boys going in for English education than the Kammas and that more Kammas have gone in for Sanskrit education than Brahmins. This is largely due to the fact that Kammas have realised that the cheaper and more homely Sanskrit education is more advantageous to ryots who want only culture and not clerical jobs than the more costly and foreign English education which can produce only clerks who are unable to understand either the English culture or the Hindu culture.

Many nationalists have been saying that English education has done much harm to the rural population. But the apologists of

English education plead that but for the English schools and the education imparted in them, the great social progress made by the Andhras would have been impossible. They claim just as the missionaries do, that the democratic spirit of the West, as understood through their literature has revitalised the Hindu society and made progress possible. But the present writer has many doubts about the utility of trying to impart education through English High Schools alone. First of all, English-educated youths assume they are more cultured and educated than their elders and so look upon the work which their parents have done with contempt. They hate manual work and they prefer the position of a clerk which fetches them Rs. 25 a month after stooping to various degrading practices, to the better paying work of cultivating their own lands.

Only four boys out of the 40 Kammas of Brahmanakoduru have gone back to the land. The rest have leased out their lands and live upon the unearned incomes and waste such incomes upon useless luxuries. It is because of the influence of Mr. K. Ramayya, that the English-educated people of Thurumella supervise the work in their fields. They grudge doing even that much work. The five Kamma English-educated men of Nidubrolu think it beneath their dignity to cultivate their own lands. On the other hand the students of Amrataluru who have studied in the Sanskrit High School, cultivate their lands carefully and intelligently, and very few, if any, have leased out their lands. Even those students of the Sanskrit School who left it at an early stage were so much influenced by the general atmosphere of simplicity that they turned to land with interest.

Secondly, as soon as a boy goes to an English school, he wants to dress himself

from the point of view of the time which light will take to traverse from them to the earth. The distance that light takes a year to traverse, they call a light-year and the distances of stars are measured in terms of light-years. Thus the distance of the star Arcturus (Swati) from us is 100 light-years while that of Antares (Jyeshtha) from us is 200 light-years.

Even if all the stars in the sky are extinguished at the present moment, we should continue to see them for many years more, for the rays that we are getting now are but antiquated rays—rays that had started on their journey years ago when the stars were alive. Thus it is impossible to get any up-to-date information about the stars. Our latest information about some stars may be more than one century old. The more distant the stars, the more unreliable our information about them. We may even doubt their existence at present. What we may safely assert is that they must have been in existence some time ago, but when, we cannot say. For we do not know when they have actually ceased to exist. Such is the irony of human perceptions!

But the astronomers have the courage, the audacity to catch even the faintest light from the most distant stars (stars at a distance of even thousands of light-years) in their telescopic tubes and make them print themselves on a photographic plate and produce like a pensioner as it were, a certificate of their existence for man to see, measure and investigate. Astronomers have also proved for us that these stars are so many suns with their attendant system of planets hid away from the most powerful telescope by their immense distances. Some time ago, in a discourse delivered by Prof. A. S. Eddington at the Royal Institution, he says that on December

13, 1920, the angular diameter of a star, i.e. the angle subtended by it at our eye was measured for the first time in history with an apparatus devised by Prof. A. A. Michelson. Hitherto every star had appeared as a mere point of light and no test had been able to distinguish it from a geometrical point. The star Betelgeuse (Mrigasirsha) observed at the Mount Wilson Observatory revealed a disc $1/20''$ of an arc in diameter, i.e., about the size of a half penny 50 miles away. The distance of Betelgeuse being known only roughly, (150 light-years), we may convert this apparent size into actual size. Betelgeuse is not less than 200×10^8 miles in diameter. The orbit of the Earth could be placed entirely inside it. We have said that a million Earths make one Sun and now we may extend the table and say that a million Suns make one Betelgeuse. This is a comparison of volume not of material. Astronomers say that its material is very diffuse and that the star is a great gas bag of low density, thinner than air, whereas in the Sun the material is compressed to a density greater than that of water.

Among the many conclusions of astronomers as to the movements of the heavenly bodies, there is one known as 'star-streaming' due to Kapteyn of Holland, recently arrived at, which is very strange and mysterious in its suggestion. They say that these unnumbered hosts of stars move in two streams in opposite directions. But whence do they start, whither are they going? There is no answer. Another strange conclusion is that our solar system itself is moving in space at the terrible velocity of 19 miles a second or 70,000 miles an hour towards the star Vega. But the young sentimental astronomer like the one in Thomas Hardy's 'Two on a Tower' need not feel any discomfort at this alarming career of the solar

system for thousands of years must elapse before any serious consequences are likely to ensue. Even when the time comes, as a result of the attractions and repulsions of the several bodies in the vast roadway of Space (Gagana-vithi), our earth may after all safely go past Vega, just as a motor-car passes safely through heavy traffic in crowded streets.

In concluding this necessarily rapid sketch of the vault of the heavens, we may remark that large gaps have been left unfilled and no justice has been done to the vast subject of Astronomy in the light of the recent important researches. We have barely given the title page of the volume which the finger of God has written in letters of fire in the starry firmament.

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THE EFFECTS OF ENGLISH EDUCATION UPON INDIAN VILLAGE SOCIAL ORGANISATION

(WITH SPECIAL REFERENCE TO SEVEN VILLAGES IN GUNTUR DISTRICT)

By Mr. N. G. RANGA, B. LITT. (Oxon.),
Diploma in Economics and Political Science
Certificate of Training in Social Work.

EVER since 1900, there has been a Sanskrit School in Amrutaru, but it was not recognised by the Government until 1916. From 1908 till 1916, it was under the management of "Sree-Vibudha Vidya Samvardhani Sabha." From 1916 onwards it came under the management of the present representative Committee of Management. In 1916, the Madras University recognised it as a 'Sanskrit High School' and it has been giving grants to this school ever since.

English, Telugu and Sanskrit are taught in this school, though more importance is given to the last. The syllabus recognised by the Government has been accepted by the Committee and so History, Geography, Arithmetic and Civics are also taught in it. On leaving this school, a student can join the Tenali Sanskrit College to pursue collegiate studies. A student who attains the highest standard possible in this school is much more cultured than a student who has passed the S. S. L. C. examination through the ordinary High School, where more prominence is given to English. For a student of this school knows as much English as an S. S. L. C. student, though he may not be able to write as quickly and he knows as much Arithmetic, Geography and History. But he knows more of Telugu literature, art, culture and the genius of Sanskrit literature, culture and the genius of ancient India. He knows also how to utilise

more fully, luxuriously and finely than his father does and this costs money. The poor father has to waste his money like this. But it does not end there, such students want to clothe themselves as luxuriously even after they leave their school and so their incomes are insufficient to maintain them in such a high artificial standard of living. Then they run into debt and are obliged to sell their property. Most of the families of Brahmanakoduru in which there are English-educated young men have got into trouble for this reason. Very many families in Thurumella are in trouble because the Kammās who are English-educated have contracted expensive habits. On the other hand, it is a great relief to find a highly-cultured Sanskrit Pandit of Amrataluru in his simple habits, inexpensive standard of living which is all the same sufficiently and decently high. He never spends any money on luxuries and he does not contract any debts. He does not pose as a superior being but he embodies the real Hindu spirit of hospitality, sociability and love of learning.

Thirdly, the influence of the habits of these English-educated youths upon the rest of the young men is very baneful. It is how the ill-educated young men of Nidubrolu who have no culture either of the English or of the Hindus have taken to modern fashions and have leased out their lands, leading a lazy, immoral and degraded life. The same thing can be said as regards Moparru, which imitates Thurumella.

The Appikatla young men also have taken to the same bad habits but not to the same disastrous extent. They all cultivate their own lands and work very hard and are very careful about money. Lastly the influence of these young men upon the morality of a

village has been disastrous. These people who are dressed finely and who spend as much time on their toilet as a European young woman does, are able to attract many married women who misconduct themselves with such people. But these young men are usually suffering from venereal diseases which they contract from their nights with the prostitutes and so they pass these diseases to the married women, thus spreading misery. Again the women also want to be equally fashionable. So they compete with men in spending money upon soaps, scents, and clothes. The woman who spends most and who is most fashionable becomes the idol. Thus much inordinate expenditure results from the introduction of this haughty alien element.

No wonder the ryots think it better to educate their children in Sanskrit than in English. It is true that the influence of Mahatma Gandhi is also telling upon these young men. But it will be a long time before all the evil they have done to society will be undone. It is to be wondered how much good in the way of democratising society has been done by these youths, for they scarcely know enough English to understand the English spirit and to try to apply it to their institutions. As a matter of fact, it is largely true that what good in the way of reforming the social institutions might have been done, is the result of the wonderful work of Veeresalingam and Mahatma Gandhi and a few other patriots. Even to-day there are many more genuine social reformers who are ready to go to the masses, to share their difficulties and to relieve their distress among the non-English educated people who are only educated by the agitation of the Library movement, Non-Brahmin movement, Mahatma

Gandhi and the Telugu newspapers than among the English educated, most of whom have never even passed the Matriculation examination.

Another important point in this discussion is that there are too many High Schools for teaching English in Tenali and Bapatla Taluks. There are six High Schools and two Middle Schools in Tenali Taluk which has a population of 225,348 and two High Schools and four Middle Schools in the Bapatla Taluk which has a population of 261,512. Indeed it has become a dignified thing for any village or group of villages to have a High School and all the activities of the few social workers of any group of villages have been centred upon financing, maintaining and managing a High School. The Secretary of a High School is much more respected than the Warden of a Panchama Settlement or any other such beneficent institution. There are only 150 students in Thurumella High School, 200 in that of Inturu and about 250 in that of Daggirala and these three institutions demand at least Rs. 5,000 each per annum from their respective Managing Committees, though the Government pays half the salaries of the recognised staff.

A High School can be a self-paying concern if there are about 700 pupils in it. But none of these High Schools can get so many students as there is not as great a demand for English education as the enthusiasts of English education would like us to believe. On the other hand, the Managing Committee of the Amrataluru Sanskrit High School has to spend only Rs. 840 per annum to maintain it. That is, it has to spend Rs. 12 per annum upon each student, while any one of the abovementioned three High Schools has to

spend about Rs. 25 per student. The Panchama Settlement at Pedapalem of the Tenali Taluk estimated that it would cost Rs. 10 per day to feed and educate its 100 pupils or Rs. 36½ per annum per pupil.*

In spite of all these adverse factors, there are many people who are anxious to start more High Schools. Clearly there must be reasons for this tenacity. First of all, the Kammās of the district have awakened to the advantages of education only in the last twelve years. The chief ambition of most of the Kammās who became social workers was to educate their boys and young men in the same way as Brahmins and to win for the community, the respect and regard of Brahmins. Kammās wanted to be the equals of Brahmins and the easiest road for attaining this goal seemed to be English education. Moreover there were few chances for Kammās to learn Sanskrit and study the Vedas and Epics as Brahmins were unwilling to teach them. But once they disregarded the objections of the Brahmins of their respective villages, there was no more difficulty to get educated in English. The additional dignity which was attained by an English-educated youth helped him to become an equal to the Brahmins of his village.

Secondly, only English-educated youths had the nerve to oppose the preposterous claims of orthodox Brahmins as they were free from old prejudices, unacquainted with the Epics in which Brahminism extolled the Brahmins and indifferent to the popular beliefs and the science behind such beliefs. So they were ready to measure the greatness of Brahmins by the amount of English they knew and they could rival Brahmins on this ground.

* This school is now at Guntur.

Thirdly, these English-educated Kamma youths were very anxious to educate many more Kammās, to raise the social status of their caste and so they carried on an intensive campaign to educate Kammās.

Fourthly, Kammās believed, as most of the old time Nationalists used to believe, that a man could raise his own and his caste's status by getting as many people as possible into the Government services, which were till 1914 practically monopolised by Brahmins. The quarrel between Vaidikis and Niyogis helped some educated Kammās and Naidus to get jobs, as Vaidikis preferred a Kamma to a Niyogi and *vice versa*. Soon the few Kammās who thus became Government officers were respected both by Brahmins and Non-Brahmins and so many Kammās saw that the only chance for Kammās to become the equals of Brahmins lay in this channel.

Lastly, the secularised Brahmins who were educated in English schools and who did not know anything about their ancestral culture fell into disrepute, and Kammās resented the social necessity of treating such discredited people with respect. This induced these and other Brahmins to invoke the aid of their ancient rights and this movement again was countered by the ignorant but English-educated Kamma young men with contemptuous abuse.

All these factors influenced the social workers among Kammās and other castes which have much stake in land to start the many High Schools and Middle Schools of the district. But in their enthusiasm they put the cart before the horse for they started schools where there were not many pupils and their anxiety to get funds has prevented them from increasing the possible number of new students who must come to join the

school from year to year. Instead of trying to bring every student to join an Elementary school and thus increase the stream of pupils who will proceed to the High School, they have been concerning themselves about the buildings and such other less important things. So the real benefit conferred by the Thurumella, Daggirala, Inturu, Nidubrola and Kolluru High Schools is not commensurate to the money expended on them.

The extraordinary thirst for some sort of education among Kammās has been created mostly by the English-educated young men and the people who were influenced by them and the educational and some other progress made by the Kammās and other Non-Brahmins of the district is to a large extent due to the introduction of English education. But we have to recognise which the enthusiasts of English education have failed to do, that other factors, such as the Social Reform party of the district and the Library movement, have had an equally great influence upon the progress of the people.

Mahatma Gandhi's followers believe that High School education should be entirely in Telugu and much more knowledge of Telugu literature, Andhra art and culture, ancient Indian history and culture should be imparted to students than is done at present in the English High Schools of India. College students should get sufficient knowledge of English so that they can read and understand books in English but it would be dangerous to teach a little English to High School pupils and leave them ignorant of both English and Indian culture.

THE LEAGUE OF NATIONS AND SCHOOLS.*

ONE of the objects of the Fellowship of Teachers is to rouse the public conscience with regard to the place of education in national and international life. It is necessary to have an idea of the part which our schools have to play in the international life of the future, for it is obvious that unless we have a definite idea of the place of our schools in international life, we cannot rouse public opinion in the matter.

Every one knows that a change is gradually coming over international relations. Co-operation is taking the place of competition in the relations between States. Various factors have contributed to this development. Commerce has been at work creating international solidarity. Political philosophers like Bluntschli have been dreaming of a world state, regarding the present arrangements only as a step in human evolution towards a world state. They regard it as the inevitable goal of human progress. In the field of religion the Theosophical Society has been preaching the Brotherhood of Man for the past fifty years. The Boy Scout Movement started about fifteen years ago by Sir Robert Baden-Powell has also been a potent factor in this direction. Its aim is, as the Chief Scout himself has said, to "abolish war through the young."

In spite of all these influences mutual suspicion and jealousy prevailed among the nations and they were always in a state of preparedness for war. Nothing provokes war more easily than this preparedness for war.

* A Lecture delivered by Mr. P. P. Vaidyanathan, M.A., L.T., of the B.E.T. High School, under the auspices of the Fellowship of Teachers, Rangoon, with Prof. D. G. E. Hall, in the chair.

The result was the cataclysm of 1914. The war caused untold suffering to the world. Besides the loss of millions of lives and treasure, it was responsible for a widespread starvation and unemployment and a total dislocation of industry.

But the war carried the evolution one step further. As long as the war lasted there was a common purse and a common larder.

This common rationing, as Mr. H. N. Brailsford remarks, is a new feature even in war. 'Pitt's subsidies were only a shadowy anticipation of this system.' So that with the enthusiastic acclamation of President Wilson's 14th point it became possible to take a step from the old world of international rivalry to the new world of international co-operation and the Covenant of the League of Nations was added to the treaties of peace. The League of Nations ceased to be a distant ideal and became an indispensable reality.

A League of Nations can work only through certain organisations and as soon as the League came into existence the constitution was drawn up. It consists of an International Court of Justice for settlement of disputes and an assembly, which besides acting as the Legislature for the framing of international law, also began to settle disputes by focussing public opinion. An executive also was necessary and the Council came into existence. The necessity for a Civil Service was met by the establishment of a Secretariat, which, as a writer says, is "British in its efficiency, French in its thoroughness, American in its rapidity of action and Italian in its smoothness." The machinery became complete with the establishment of the International Labour organisation.

As soon as the League came into existence numerous problems pressed for solution, most

of which were of a complicated nature. The political reconstruction of Europe caused many difficulties. The repatriation of prisoners of war, the campaign against epidemics, the prevention of traffic in opium and in women and children are some of the many activities of the League. The League has also succeeded in bringing about a uniformity in the conditions of labour through its International Labour Organisation. No individual nation, however strong, could have achieved these successes. The League has been able to do it because it had the support of public opinion. As Dr. Maxwell Garnett says, "This public opinion is the most effective weapon in the League's armoury."

It is therefore clear that the only hope of a better world lies in the League and if it fails, the "horrors of five years of war would have been endured in vain." The success of the League depends on the support of the people of the world. The people of the world must feel that the League is indispensable. A "universal conscience" has to be created. For as Mr. Fisher points out, the League can flourish only "upon the soil of civilised and instructed opinion."

But this is no easy task. As Mr. H.N. Brailsford says, "The prejudices which hampered international co-operation in the past may never yield to formal reasoning. The evolution on which we may reckon is rather that the new institutions by setting men in new relation must in the end transform their thinking. The slow modification of the concepts which underlie nationalistic economics must follow as a League of Nations is gradually built up."

Post-war University education has been developing on these lines. Sir Brajendranath Seal, in the course of his Convocation Address

to the graduates of Bombay, in August last, said, "University education in its post-war reconstructions has struck this new note, that of international amity and concord. The British University Missions to America, France and Belgium were no doubt redolent of the war-time alliance and were not followed up, but where official hierarchy failed, the students' brotherhoods in the Universities of the world have pressed forward with the olive branch. The Strasbourg International Confederation of Students, a hardy plant, has offshoots in every country of Europe, National Unions of Students, seeking to link up the life and activities of the various Universities of the world. The University women have responded warmly to the men's call and have their own International Federation. Lastly, a system of Exchange Professorships and Travelling Studentships has carried this idea into the machinery of University organisation."

That marvellous creation of Rabindranath Tagore's brain, Viswabharati, at once Indian and universal by its name, has placed India in the vanguard in this movement of International Universities. The Geneva Committee of Intellectual Co-operation is also a cognate effort, and its world brotherhood vindicates the fair name of Science and Knowledge from the slur cast upon them by their association with the spirit of war." I may also add that India is making yet another contribution to the development of International Universities for Dr. Annie Besant's scheme of a Theosophical World University is maturing and will soon be an accomplished fact.

But our main work lies through children. To quote Mr. Brailsford again: "The League's future depends in the long run on its appeal to the imagination of the growing child." This appeal to the imagination of the child

has to be made through work in schools. It has been very well said that education is "the most formidable engine in the modern world for controlling conduct and swaying purpose." Lord Sydenham maintained that the simple kindly people of the South German States have been transformed in two generations and argued that if bad education could do all that evil in Germany, how much good might be done in England by education properly handled.

Without going into a lengthy discussion of the aim of education it will be generally admitted that education should enable the individual to attain the "good life." By the good life is meant one which would enable him to rise to the height of his being.

This is possible only by making the individual efficient in body and in mind.

Leaving the body out of consideration for a moment, let us see how the mind can be made efficient. This is done in two ways. In the first place, the children are trained in hard thinking and in concentrating attention. But this is not the most important part of the training. The accumulation of disconnected facts can serve no purpose. These facts have to be knit together by a working hypothesis regarding the purpose of human life in the world. In the absence of such a theory education loses its value. When this theory with its rich emotional tone appeals to the imagination of the pupil, the foundations of his religion and character are laid. 'It is the function of the schoolmaster,' as Dr. Maxwell Garnett points out, 'to synthesise his teaching by suggesting to his form a theory of this kind and urging them to act upon this theory, to live up to their religious faith and thus bring about the ideal future of mankind.'

This theory has to be closely connected with all school studies. This connection can be easily made with history and geography.

History is the story of man's development. It tells us how man from being a savage fighting desperately against nature came to be a world citizen with immense power over nature. In the later stages of the study emphasis has to be laid upon the various factors which have made the world a 'living unit.' Man is no longer an isolated individual. He is a member of a world society. He can no longer leave the developments in other parts of the world to experts. He has to decide for himself and everything depends upon his choosing rightly. If he errs, the results will be fatal to civilisation. World wars will become common and blood-stained confusion will prevail. On the other hand, if he chooses rightly, a new era will dawn upon the world and ignorance and bloodshed will be replaced by clear thinking and ordered progress.

How can our teaching of history enable him to choose rightly? The subject-matter of history being the evolution of humanity, it cultivates in the student a sense of the solidarity of his fellowmen. He will realise that he is sharing a common lot with other human beings who have their place in the world however much they may differ from him. He will learn that he is always a part of a larger whole and this will help him to realise that love of country is not inconsistent with love of humanity.

One fact which has to be borne in mind in the teaching of history is the treatment of wars.

At the sixth assembly of the League of Nations, Haiti invited the attention of the state members of the League to undertake a

revision of their history manuals so as gradually to reduce the excessive space devoted to military events, particularly wars of conquest. The teaching of wars often leads to the revival of old hatreds. But it is worse to teach wars as necessary for progress. Prussia has recently taken a step in the right direction by prohibiting the excessive treatment of wars in history. 'Happy is the nation which has no history,' if history means the weary story of battles and sieges.

Another useful change in the teaching of history in schools is the inclusion of current history. Frequent discussions regarding the League and its activities should be encouraged and it will go a long way in stimulating their interest in the League.

Another great need of our schools is a decent reading room. Newspapers and periodicals form current history. This aspect is woefully neglected and when this fact is pointed out, the reply invariably is that the boys do not readily take to them. But that is because there is no decent reading room.

Geography is the study of the world as the abode of man. It can be connected with the central theory regarding the purpose of human life in this world. When all that is unfamiliar to the child's mind comes to be regarded as the influence of environment and that human life is in essentials the same everywhere, a sympathetic understanding will be created which will lead to the development of good-will.

The most useful part of the teaching of geography is the discussion on topics that might suggest frequently.

The study of the works of the best authors of various countries is of great help in enabling us to understand their points of view. The

greatest thinkers have all been lovers of humanity and the study of their works will certainly help in creating the same love in the student.

Therefore in the fifth assembly of the League, Poland desired the consideration of the question of 'spreading universally the works of great literary and artistic value of all nations whose spirit corresponds to the principles and aims of the League of Nations.'

Besides these subjects of the curriculum, the daily routine of the school affords ample opportunities of working towards this ideal. The prayer at the beginning of the day's work is an effective means of creating reverence for all religions in the minds of the pupils. In neglecting this aspect of education, some of our schools lose one of the most effective aids in the realisation of the ideal. But it is not enough if one particular religion is represented. All religions have to be represented so that while strengthening him in his love for his religion, a reverence for other religions is also evoked in the pupil.

This can be supplemented by religious instruction. Religious instruction is a desideratum in our schools to-day. The fundamental ideas of all religions in all their practical bearings can be explained to the pupils in a simple manner and this will lead to a better understanding.

Parochialism of every kind has to be weeded out of the pupil and nothing helps in this more than the Boy Scout Movement. Scouting enables the boy to put into practice all the good precepts he has learned in the class-room. The Scout gets ample opportunity for service and co-operation.

All that I have been saying to you can be summed up in the one phrase of Sir Brajen,

dranath Seal "cultural nationalism." He says: "There is a precious element of truth in this concept of nationality which we must not lose in the strife and turmoil of the hour. Nationality is a stepping-ground to internationality, to Universal Humanity. but nationalism of an aggressive and exclusive type will block the path. It will continue to complicate international problems. The world must cultivate a cultural nationalism and that of a synthetic type, in order to move to a pacific internationalism. And India is fitted by her faith in Unity, by her synthetic vision, and by her age-long gospel of "Ahimsa" and "Maitri" to make material contributions to the synthetic cultural nationalism and to international concord and peace."

The task of the teacher, then, is a responsible one, for on him depends the success of

this great experiment. That he may do the best that is possible, he must have the opportunity of meeting and discussing with others the best means of creating a spirit of world fraternity in the schools. Thus will be brought to realisation Tennyson's vision of a future

"Where the war drums throb no longer,
And the battle flags are furled,
In the Parliament of Man,
The Federation of the World."

Evolution favours the materialisation of this vision and it is for the teachers to decide whether the younger generation ridding itself of fear and jealousy, the lust of power and the selfish pursuit of wealth, will enter happily the promised land.

COMMERCIAL ARITHMETIC

FOR

SECONDARY AND COMMERCIAL SCHOOLS

Prepared in accordance with the S. S. L. O. Syllabus

By T. V. SUBRAMANIA AIYAR,

Commercial Instructor, Govt. Muhammadan College, Madras;

Author of

Commercial Correspondence, Book-keeping for Beginners, Graduated Exercises in Typewriting, etc.

CONTENTS.

CHAP. I. Some short cuts and artifices; II. Signs, tables and vocabulary; III. Averages and Percentages; IV. Insurance, Commission, Brokerage, Tradesmen's Discount, Rates and Taxes, Bankruptcy; V. Bills and Invoices; VI. Profit and Loss; VII. Alligation; VIII. Partnership; IX. Interest—Simple and Compound; X. Present Worth and Discount; XI. Equation of Payments; XII. Shares and Stocks; XIII. The Metric System; XIV. Foreign Moneys and Exchange; XV. Miscellaneous Examples; XVI. Madras S. S. L. C. Question Papers; APPENDIX—Answers.

OPINION.

Mercantile Miscellany, April 1926:—The enterprising firm of Messrs. Srinivasa Varadachari and Co. Mount Road, Madras, have sent us a copy of Commercial Arithmetic for S. S. L. C. students which they have published. The book is a very useful addition to the existing literature on the subject and bids fair to be regarded as a Standard Text-book on the subject on this side. Needless to add that the book being written with a Commercial bias it should prove invaluable to all youths aspiring after commercial or business career. We congratulate the author, Mr. T. V. Subramania Iyer, and the Publishers, for the neatly got-up little volume before us.

D. Cr. 8vo. about 200 pp. Price Rs. 1-4-0.

SRINIVASA VARADACHARI & CO., 4, MOUNT ROAD, MADRAS.

THE ALL-INDIA TEACHERS' FEDERATION.

(Patna, 28th, 29th & 30th Dec. 1926.)

(FROM OUR SPECIAL CORRESPONDENT.)

I.

THE Council of the All-India Teachers' Federation met at 12 noon on the 28th Dec. 1926 at the Bihar National College, under the presidency of Prof. P. Seshadri, M. A., the Chairman of the Council of the Federation. The resolutions to be placed before the open session of the Conference on the 29th Dec. were discussed and adopted. The constitution was amended so as to allow, in special cases, of individual members, and District Associations also being admitted into membership. Prof. P. Seshadri was re-elected President for next year and a Committee, representative of all parts of the country, was also elected to carry on the work of the Association.

II.

The open session of the Conference was held at the Wheeler Senate House on the 29th Dec. Principal D. N. Sen of the Bihar National College was the Chairman of the Reception Committee. The following are extracts from his address :—

The teacher's business is to encourage, guide and help the student ; to make greater and greater effort to widen his vision of the world and at the same time to develop his moral and spiritual backbone. Our business is not to place him in a straight jacket, which is often mis-named discipline, to cripple his native powers by replacing his own struggle for knowledge by our efforts to force him to place himself in an artificial world which is our own creation and which, instead of helping a free growth, hinders it. We cannot

sufficiently realise the fact that we are in charge of precious souls for whom there is a necessary place in the plan of Providence. I do not believe in a soul-killing education which does no justice to the most precious elements in a child's nature but only satisfies the whims of an educational faddist.

We talk of culture and enlightenment, of extending the boundaries of knowledge, of acquiring power and penetration for the struggle of life. Vain are these strivings so long as education does not educate to supply the power that would sustain life. The charge against us is that our education is futile because it leaves our youth hopelessly unequipped for winning for themselves even the material requirements of sustenance. Finer ideas and finer sentiments may please the imagination and soften the heart but one cannot live perpetually on this sort of highly-spiced diet. I think we have not succeeded in solving this most vital problem. Our education, they say, is not a training for the actual requirements of life.

We are a nation with memories which are coming back to us again in an ever-increasing measure. In our task to build up a national system of education, India's past must supply the foundation. Age-long national characteristics, ideals and aspirations, the accumulated experience of thousands of years which has out-lived social and civic revolutions which have swept over India, experiences which form the heritage of the Indian race cannot be laid aside thoughtlessly. India still retains the continuity of her traditions of ancient culture. The history of Indian culture is one of uninterrupted continuation. We have been now on the crest of the wave, now descended into the trough ; there have been periods of exaltation and depression,

but we have moved on. We cannot, therefore, deny the place which Indian culture should have in building up the edifice of our national education. There is an insistent demand not merely for the rationalisation but also for the nationalisation of education. The Hindu will always look back to the holy past which has made him what he is ; the Moslem will always draw inspiration from the glorious pages of history, and Indian Christians, who have imbibed influences from the achievements, and the moral and spiritual riches of Christianity, will always find in them a secure anchorage for their vessel of life. Past history must not be ignored, the new must be assimilated to the old ; in one word we must have a national system of education which will do justice to our past and become international by adapting itself to the world forces which are moving and shaping humanity.

The teaching profession feel keenly that neither social nor economic justice is vouchsafed to them. The work of a teacher is not devoid of inspiration or utility. I have lived my life as a teacher for more than a quarter of a century and found in it ample scope for the realisation of my deepest and most sacred aspirations. I think, brother teachers, every one of you has felt likewise. My soul has grown and expanded in the daily and hourly contact with students who have eagerly sought knowledge and striven for its moral, intellectual and spiritual products. You must have felt, as I have felt, that the sphere of activity to which you have been called is the best and fittest for us and that the inspiration of our work is the noblest that we could think of. We have made our choice, we have done our little bit in the field of work appointed for us by Providence, we have no ungracious regretfulness for the

XXXIII—13

life we have entered into ; we have found our highest realisation in the humble service of humanity to which our destiny has laid us. We complain of social injustice which, in the modern re-adjustment of values, has not been to our advantage. But may I humbly point out that the remedy lies in our own hands. In this classic land the value of a teacher's work has never been estimated in gold or silver but in spiritual benefit which it has brought to the pupil. The Indian ideal of a teacher has always been that of simple, unostentatious service, a life of self-less devotion to duty, its highest ambitions being to give and not to take.

If we suffer from the unjust economic valuation of our work, we must think of the ancient teachers who found themselves sufficiently recompensed by the knowledge which they imparted and the veneration in which they were held. If we can successfully build up youthful life, by imparting to it both knowledge and power and the capacity for social and national service, that is not a small return for our work, even if the economical values, determined by the social usage, are not what they ought to be. There is, however, another side of the question. If teachers represent an important and powerful force in the organisation of national activities, economic justice certainly demands that the teacher should be put out of actual want and that proper opportunities and environment should be created for the performance of their share of national work. We cannot say that we have succeeded in creating the right conditions for the proper development of this branch of national service. It is gratifying that Indian legislatures are granting more liberal supplies for education and that teachers' salaries, educational buildings and

equipments are being placed on a more liberal scale.

Here the speaker referred at length to the endeavours made in Great Britain by British Parliament in the direction of improving the lot of teachers and of education in general and said that 'British Parliament is the mother of our Parliament, and the example set by the parent institution should be followed by her Indian babies.'

Referring to conditions in Bihar, Principal Sen said :—

In this province, the rules for recurring grants to High Schools were revised, a lump sum for the teachers' pay being substituted for detailed rates and an increase of about 12½ per cent. being allowed at the same time. It was also decided that with effect from 1926-27 a grant to a High School (subject to a maximum of half of the standard costs and a minimum of Rs. 75 a month) be the standard cost minus the fee-income, any other income being thus made available for expenditure at the discretion of the Committee. This measure, I regret to say, has not satisfied the teachers.

Concluding, Principal Sen said :—Brother teachers : I invite you, every one of you, to join this jubilee of life and light. As an apparently dead body revives and awakens thrill passes from limb to limb, from organ to organ, until consciousness dawns again and strength and vigour return to the body. In this awakening of India which we witness in the active forces giving a fresh youth to every limb and organ of the Indian nation, let us feel that the old spirit of India is thrilling through our veins and calling us to a new life and a new endeavour. Brother teachers : Look, the spirit of India beckons unto us. The call has

come to us, to every one of us. Let us join the throngs which are pressing forward and are crowding to have a share in the new life which is awakening our land from end to end and is an earnest of her great destiny in the place of providence.

Mr. Sen then formally proposed Mr. A. R. Wadia to the chair. In doing so, he referred to the many good qualities that particularly fitted him to be their President. He was a distinguished scholar and had at his heart the uplifting of the rising generation. Although he had received the culture of various countries of the world, he was a true Indian at heart and had whole-heartedly devoted himself to the particular sphere of life, namely, education, which he had chosen for himself and as such it was a great acquisition on their part to have him in their midst.

Professor Seshadri of the Benares Hindu University, the President of the Council of the Federation, in seconding the motion, hoped that under his able guidance the session would be a great success.

III.

Prof. A. R. Wadia then delivered his Presidential Address which has already appeared in our January issue.

IV.

The following resolutions were passed at the Conference :—

THE LATE PROF. JHA.

The first resolution mourning the sudden and untimely death of Professor Radhakrishna Jha of Patna College was moved by the President and was passed unanimously, all standing.

At this stage Sir Hon. Muhammad Fakruddin, Minister of Education to the Local Government, entered the hall. He was received

at the gate by Principal Sen and was garlanded by him, amidst loud cheers.

PROF. JADUNATH SARKAR.

Mr. S. K. Deb Roy (Bengal) then moved the next resolution expressing satisfaction at the appointment of Professor Jadunath Sirkar as the Vice-Chancellor of the Calcutta University and said that it was a matter of great satisfaction to them that a teacher was appointed as the Vice-Chancellor of the premier and oldest University of India.

Mr. Soukhin Singh (Patna), having seconded the resolution, it was passed unanimously.

GREETINGS TO WOMEN'S EDUCATIONAL CONFERENCE.

Mr. H. Bhanju (Calcutta) moved and Mr. M. R. Paranjpye (Poona) seconded the resolution, sending cordial greetings and good wishes of the Conference to the Women's Educational Conference to be held at Poona. The resolution was passed unanimously.

PREVIOUS RESOLUTIONS CONFIRMED.

Mr. P. Seshadri then read out some of the resolutions passed at the last session of the Conference at Cawnpore explaining here and there some of the clauses and they were all confirmed by the meeting without any discussion.

ADULT EDUCATION.

Mr. S. Ali Akbar (Hyderabad) in moving the next resolution, emphasised the necessity of working out an extensive programme of adult education in the country and said that for the uplift of the country as a whole, mere compulsory primary education of children was not enough. Until and unless every adult was made to read and write and thereby be capable of understanding things, there was no hope for the intellectual regeneration of the

country. This system was not very expensive either. Adult classes could be held in the existing school buildings either in the morning or at night. He said that the system was being experimented in the Punjab with considerable success and in this respect also, as in respect of primary education, the Punjab had gone far ahead of other provinces.

Mr. S. Banerjee (Maler-Kotla, Punjab) in seconding the resolution explained at length the working of the system in the Punjab.

The resolution was passed unanimously.

TEACHERS' COUNCIL.

Mr. D. P. Khettry (Cawnpore) then moved the following resolution :—

"This Conference approves of the principle of the Teachers' Registration Council, England, and appeals to the various Provincial and State Governments to take early steps for the establishment of similar Councils in this country."

He said that the dignity of the teachers would considerably increase if they could be legally registered. The establishment of such Councils, therefore, was very much necessary. Mr. D. N. Sen, having asked by way of elucidating information whether it would not be difficult to register the teachers in India while there were only a very few trained teachers, the speaker said that experience might be considered by them as sufficient training, and it was not necessarily intended to confine registration to people trained in colleges.

Mr. B. Prasad (Allahabad) seconded the resolution and it was passed unanimously.

ECONOMIC CONDITION OF TEACHERS.

Mr. Hemanta Kumar Mazumdar (Hooghly) in moving the next resolution, recommending to the Provincial Associations of Teachers to hold enquiries into the economic conditions

of teachers in their respective provinces, said that they must face the economic problems and try to solve them in every possible way at the earliest possible time.

Mr. S. Banerjee (Punjab) seconded the resolution and it was passed unanimously.

The next resolution emphasising the necessity of giving all encouragement to Scouting and Social Service organisations in educational institutions was moved and seconded by Rai Sahib Haridas Goswami (Bengal) and Mr. Ramrup Prasad (Bihar) respectively, and was passed.

The next resolution that provision for religious education should exist in all schools and colleges was moved by Mr. H.K. Mazumdar (Bengal) and was seconded by Mr. Soukhin Singh (Bihar). The resolution was opposed on the ground that it was very difficult to provide religious education in Indian schools where students of different creeds studied together. It was pointed out by a Bihar delegate that at least in that province there was provision for setting apart periods for moral instruction which was in the circumstances the most practical course they could adopt.

The resolution was, however, passed by a majority.

SIR FAKRUDDIN'S SPEECH.

Further discussions on the resolutions were postponed for a few minutes and at this stage the Hon'ble Minister of Education addressed the Conference. He regretted that he could not come in time on account of pre-occupation and thus had missed the opportunity of hearing the distinguished scholar and educationist who had come to preside over their deliberations. But he hoped that his speech would be published in newspapers and then

he might be in a position to read it. He assured them that he would carefully consider every piece of valuable advice that he might find in that speech. He assured them further that their resolutions would receive his most careful attention and he hoped to derive ample benefit from their united advice. He said he was glad that he had the opportunity of meeting the representatives of teachers from all parts of India and he was particularly glad that they were discussing problems not only affecting the teachers but the students also.

Speaking about his own province, he said that they were doing all for the advancement of education that their limited resources allowed them. Other provinces might have made considerable improvements but they were rich in resources. Moreover, in Bihar their education was largely financed by what they called ill-gotten revenue, *i.e.*, excise duty. If the Council did not allow them to realise that duty, then they would be compelled to stop even what little financial help they were giving to the Education Department. Barring the financial aspect of their resolutions, therefore, the Government of Bihar would sympathetically consider them. He thanked them for the courtesy they had shown him.

Mr. M. R. Paranjpye (Poona) moved a vote of thanks to the Hon'ble Minister of Education for all the sympathy he had shown for their cause. He said that in one respect at least the province of Bihar was superior to his province (Bombay) and that was the attitude of its Ministers towards public questions. In Bombay, the Minister of Education was not only conspicuous by his absence, but he even prohibited the teachers of Government Schools to join the Teachers' Association. He was glad that there was no

such ban on the teachers of Patna in Government service.

Mr. Wadia, in thanking the Hon'ble Minister on behalf of the Conference, remarked that the Minister of Bihar had in this respect a lesson to teach to the Education Ministers of other provinces.

The Hon'ble Minister having left the meeting, it was adjourned for a few minutes and the President and delegates were photographed in a group.

The Conference having met again, Mr. N. G. Nath (Mirzapore) moved and Mr. Mathura Prasad (Patna) seconded the resolution that the teachers of three years' standing should be allowed to appear privately at training examinations. The resolution was passed unanimously.

TEACHERS' REPRESENTATIVES IN LEGISLATURES.

Mr. D. P. Khettry then moved that the members of the teaching profession should have representatives on the local legislatures and said that the teacher must have his own quota to offer for the solution of the affairs of the country and his province. An amendment was moved that they must have representatives in the central legislature also. It was accepted by the mover and the resolution was passed in the amended form.

The next resolution urging on the Government to make temporary exchange of teachers from one province to another was moved and seconded by Mr. M. R. Paranjpye (Bombay) and Mr. V. B. Kelkar (Benares) respectively, and was passed unanimously.

EDUCATIONAL LITERATURE.

Mr. S. Banerjee (Punjab) moved a resolution requesting the Bureau of Education of the Government of India to extend consi-

derably its activities in the publication of educational literature, having special bearing on the educational conditions in India. It was seconded by Mr. M. R. Paranjpye and was passed unanimously.

PAY AND PROSPECT OF TEACHERS.

The next resolution urging the Government to abolish inequality of pay, prospects and conditions of service in Government and non-Government educational institutions was moved and seconded by Mr. Gopal Chandra Bhattacharya (Bengal) and Mr. Hamiuddin Khan (Jaipur) respectively, and passed unanimously.

CONSTITUTION OF MANAGING COMMITTEE.

Rai Saheb Haridas Goswami (Bengal) moved approving of the rules for the constitution of Managing Committees of Secondary Schools passed by the Calcutta University and recommending the same for adoption in other parts of India also.

He said that very frequently friction arose between the teachers and the unconstitutional managing committees, often resulting in even the dismissal of the teacher. The Calcutta University, on the representation of the Bengal Teachers' Association, had made what were known as school codes, according to which each private school was to have a managing committee, consisting of members elected by teachers, guardians of students and other gentlemen. He said that in these days he need hardly tell them that elected members were far better than self-elected members and he hoped that they would not only accept the resolution but try in their own provinces to have the old system replaced by the new. The resolution was accepted.

The next resolution moved by Mr. P. C. Chatterjee (Mirzapore) and seconded by Mr.

The first volume of the work contains (i) a masterly introduction dealing with the historical growth of the Indo-Aryan dialects from the Vedic times, (ii) five appendices to the same and (iii) the Phonology of the Bengali language traced from old Indo-Aryan. The second volume is exclusively devoted to the morphological growth of the Bengali language.

Prof. Chatterjee begins the introduction with a brief panoramic survey of the ramifications of the Indo-Aryan into Indo-Iranian, Dardic and Indic, and the further breaking-up of the Indic group in India immediately prior to and during Vedic times. Here amongst other things he fixes the position of the Singalese and the Gypsy languages in the Indic group. The graphic account of the Gypsy language is full of interest and well worth quotation:— "The Gypsy dialects of Western Asia (Armenia, Turkey and Syria) and of Europe fall into two classes, one European and the other Armenian. The Gypsy speeches are derived from Prakrit dialects spoken in the North-West of India and these dialects had some connection with the Dardic speeches. The ancestors of the Gypsies seem to have dispersed from India for the first time as early as the fifth century A.C., and the earlier bands went to Europe by way of Persia, Armenia and the Byzantine Empire, arriving in Eastern Europe in the twelfth century and thence spreading to Western and South-Western Europe. A later band stopped in Armenia where their language is more faithful to the middle Indo-Aryan forms, but seems to be more impregnated with Armenian. The connection between the modern Indo-Aryan languages and the Gypsy dialects is, from the point of view of origin, very close; but as these have developed entirely on their own lines, they are not usually considered in dis-

cussing the history of modern Indo-Aryan; they throw valuable light on some points of middle and new Indian phonology, however."

The entire course of the Linguistic History of the Indo-Aryan speech is then divided into three periods: (i) Old Indo-Aryan 1500 B.C. to 600 B.C. (Vedic as type), (ii) middle Indo-Aryan 600 B.C. to 1000 A.D., and (iii) new Indo-Aryan after 1000 A.D. The long period of the middle Indo-Aryan is also divided into shorter sub-periods characterised by common features.

A detailed survey of the Aryan invasion of India is given next. Prof. Chatterjee describes graphically but with perfect scientific precision (supporting every one of his statements with authorities) how the Vedic Aryans spoke a 'Satem' dialect as distinct from the 'Centum' dialects of the West, even prior to their coming to India, how a branch proceeded to the mountainous regions of the Hindu-Kush to become the ancestors of the Dardic-speaking peoples of that region, what pre-Aryan elements existed in India before the Aryans' arrival and how far Grierson's and Hoernle's theory of the 'inner' and 'outer' Aryans which seems to derive some support from Ram Prasad Chanda's racial and anthropological investigations, could be sustained.

Then the author goes on to explain how various old Indo-Aryan dialects arose, how the Vedic speech was only a kind of literary language—a bardic speech based primarily upon one of the dialects only—what influence the pre-Aryan settlers of India, especially the Dravidians, exerted on the Vedic dialect, how gradually through the course of generations, the Aryans spread over India giving rise to new dialects of speech, and how at a later stage in order to stem the wave

of speech-corruption the Brahmins of midland Aryan blood kept up the use of a pure language which was, towards the close of the Brahmana period, improved and perfected into Samskrita, and how Panini gave to it a fixity for all time.

A detailed description of the various Prakritic dialects and Apabrahmsas follows next. The development of the Magadhi dialects, which is the ancestor of the Bengali, Assamese and Oriya tongues, claims the author's special attention. This is followed by an interesting discussion of the linguistic condition of Bengal prior to Aryan colonisation.

Says Prof. Chatterjee: "Is there any evidence about the class of speech that prevailed in Bengal before the coming of the Aryan tongue? There is of course the presence of the Kol and Dravidian speakers in the western fringes of the Bengali area and of the Bodo and the Mon-khmer speakers in the northern and eastern frontiers. There are again some unmistakably Dravidian affinities in Bengali phonetics, morphology, syntax and vocabulary; but these agreements with Dravidian are not confined to Bengali alone, but are found in other new Indo-Aryan tongues also. Apart from that, local nomenclature in Bengal may be expected to throw some light on the question."

Prof. Chatterjee notes the Dravidian origin of many of the endings of Bengali place-names. He mentions the frequency of the following endings in Bengali place-names and attempts to correlate them to Dravidian words.*

* Prof. Chatterjee's suggestions of cognate Dravidian words are all likely; but I would like to relate the *jōla* group to Tamil கால் = canal, *pōla* to பள்ளி and *kunda* to குண்ட.

I	jōla	Cognate with (according to Prof. Chatterjee) Kannada, <i>jōllu</i> = saliva. <i>joru</i> = drip, trickle or Tel. <i>dsōllu</i> .
	jōta	
	jōli	
II	jōtika	Tamil-Malayalam, <i>vidu</i> = house.
	hitti	
	bhitti	
	viti	
III	histhi	Tamil, <i>Kattei</i> = lump or Tel. <i>gadde</i> .
	gadḍa	
IV	gadḍi	Tel. <i>polamu</i> or Kann. <i>polal</i> = field.
	pola	
V	vola	Tel. <i>kōṇḍa</i> = hillock.
	kunḍa	
VI	kunḍi	Tamil and Canarese <i>cāvādi</i> = a resting place.
	cavāti	
	cāvāḍa	

About the 7th century A.C. the Aryan language had been generally adopted by the people of Bengal, Aryanisation having been inaugurated probably in the 4th century under Maurya rule and vigorously carried on under the Guptas. The author now enters upon the discussion of the history of the growth of the Bengali language dividing its course into three periods:—(i) Old Bengali 10th to 13th centuries, (ii) Middle Bengali, 1200 to 1800, and (iii) New Bengali from 1800 onwards.

The growth of Bengali individuality is described by Prof. Chatterjee thus: "The tribes of Bengal were already welded (about the beginning of the old Bengali period) into an Aryan-speaking nation. This new people took to learning with great zeal. Monasteries and Colleges in Magadha and Bengal became famous as seats of Buddhistic learning, and an extensive Buddhistic religious and philosophical literature was produced. Indian

N. G. Nath ran thus :—"This Conference is of opinion that a definite written contract of service between teachers and the management of schools, to be approved by the Government, be insisted upon as a necessary condition of recognition of schools by the department."

Two other resolutions, one congratulating the U. P. Government on their initiating the Hindustani Academy and the other congratulating them on their appointing medical officers for schools were moved and adopted.

STUDY CIRCLES.

Mr. L. N. Mathur (U. P.) moved recommending study circles to be started for the benefit of teachers in all schools.

Mr. Jagat Jyoti Sahay (Bihar) seconded the resolution and it was passed.

Rai Sahib Haridas Goswami invited the next session of the Federation to be held in Calcutta. The invitation was accepted amidst loud acclamation.

A resolution was passed thanking Mr. Sultan Ahmad, the Vice-Chancellor of the Patna University, for kindly lending the Senate Hall for the use of the Conference.

Mr. D. N. Sen thanked the President, the workers and the delegates in a few well-chosen words.

Mr. D. P. Khettry thanked Mr. Sen, the Reception Committee and the volunteers on behalf of the Conference.

The President in adjourning the meeting regretted that he had no time to remain in Patna for a day or two in order to cultivate personal relations with the delegates. But he assured them that he was carrying pleasant impressions of the Conference with him. He knew that any thanks-giving on his part to Mr. Sen and his colleagues would render the Conference a mutual admiration society,

but he could not but express his appreciation of the work of their General Secretary. He thanked them once more for the honour they had done him.

The Conference was then adjourned for the day.

V.

In connection with the Conference of the Federation, the following lectures were delivered on the 30th December 1926 at 12 noon in the Wheeler Senate Hall, Patna, with Prof. P. Seshadri in the chair.

1. "The Dalton Plan," by Mr. L. N. Mathur, Headmaster, J. A. S. High School, Khurja.

2. "The Use of B. B. in Teaching Drawing," by Mr. B. G. Bannerji, Lecturer, Patna Training School.

3. "Illiteracy and Unemployment," by Mr. Baidyanath Thakur, Headmaster, B. N. Collegiate School, Patna.

4. "Education in Hyderabad State," by Mr. S. Ali Akbar, Inspector of Schools, Hyderabad State.

5. "Education in the Punjab," by Mr. Sas-dhar Banerji, Lecturer, Malerkotla Intermediate College.

6. "Co-operative Relief Societies for Teachers," by Mr. Hemant Kumar Majumdar, Headmaster, P. N. A. S. School, Patna.

7. "Education in India in 1926," by Professor P. Seshadri, M.A., the Benares Hindu University.

8. "Indianisation of Research," by Mr. S. R. Tewari, Baroda High School.

9. "Educational Neglect in India," by Mr. Bepin Chandra Mukerji, Headmaster, Mahamaya Institution, Singur (Hooghly).

THE LINGUISTICS OF MODERN NORTH INDIAN LANGUAGES.*

(A REVIEW)

By Mr. L. V. RAMASWAMI IYER, M.A., B.L.
Ernakulam.

THE field of modern Indian Linguistics has long been in the exclusive possession of Western scholars. Portions of the field have been brilliantly explored and illuminated by the monumental labours of scholars like Beames, Hoernle, Grierson, Schrader, Bloch and others. All honour and thanks to these Western *Panditas*. However admirable their work had been, it was bound to be handicapped by that want of sympathy and intimate understanding which a native born and bred to the genius of our languages alone could command. Barring the brilliant but piecemeal attempts of a few Indian amateurs and scholars, there had been in the past few systematic or scientific attempts by Indians at a comprehensive survey and analysis of the Linguistics of modern Indian languages. It is therefore with a just pride that we hail the first fruits of a distinguished explorer in this field. Our pride is considerably enhanced when we note with what wealth of scholarship, scientific precision and critical acumen the work has been accomplished. Prof. S. K. Chatterjee's book, although primarily aiming at the reconstruction of the bases of the origin and development of his own mother-tongue, the Bengali language, is a mine of information, in which the students of Linguistics can delve with great profit, about the general development of the Indo-Aryan tongue in India, into the

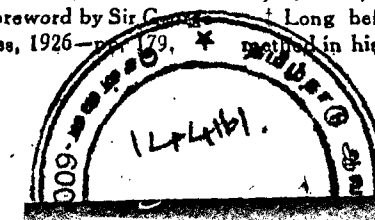
various prakrits and apabrahmsas which have given rise to the modern North Indian languages. Gifted with a natural aptitude for linguistic studies and blessed with opportunities to pursue his studies in Europe under the guidance of such remarkable scholars as Grierson, Barnett, Meillet, Bloch and others, Prof. Chatterjee has succeeded in placing before us a *monumentum opus* for which students of Indian Linguistics cannot be sufficiently grateful. It is a magic structure that Prof. Chatterjee has raised before us, and to one that wanders through its by-paths and looks round its corners, the linguistic history of North India from the Vedic times down till to-day stands in realistic shape vividly and beautifully illuminated. The materials that Prof. Chatterjee has gathered for shaping this structure are infinitely varied in character. Subjects like Archaeology and Ethnology have been freely laid under contribution. We in South India should be specially interested in his discussions of the affinities of the Indo-Aryan and Dravidian groups—relations which seem to have commenced even as early as the Vedic times.†

As Grierson has pointed out in the Foreword, there are two possible lines of investigation in the study of Indian Linguistics: either to follow the method of Beames and view all the connected speeches as a whole, ‡ or that of Bloch basing our views on the intensive study of any one language and comparing it with others. Prof. Chatterjee has chosen the latter course and, as Grierson says, the more profitable one.

† It is even supposed that there had probably been contact between Dravidian and Aryan even before the latter came to India. "L'hypothese" (says Prof. Bloch) n'est pas absurde (Bulletin de la Société Linguistique, Part I, Vol XXV).

* *The Origin and the Development of the Bengali Language*, by Suniti Kumar Chatterjee, M.A., D.Litt. (London). Khaira Prof. of Indian Linguistics in the University of Calcutta. With a Foreword by Sir G. Grierson—Calcutta University Press, 1926—p. 179.

‡ Long before Beames, Caldwell had applied this method in his famous study of the Dravidian languages.



culture was transmitted to Tibet and Burma by Bengali scholars. In Sanskrit scholarship, Bengal already made its mark and before the beginning of the eighth century when Bhāmaha and Dandin, the famous writers on Sanskrit Poetics, flourished, the "Gaudyārīti" or Bengali style of composition, obtained an honoured place in Sanskrit Rhetoric. There grew up flourishing seats of Brahmanical learning like *Siddhala* and *Bhuri-srestha* in West Bengal. By the middle of the 10th century, to which the earliest specimens of Bengali can be referred, the Bengali language may be said to have become distinctive, as the expression of the life and religious aspirations of the people of Bengal, with the nucleus of a literature uniting the various dialectal areas. A new speech entered into being, to give expression, later in life, to some of the highest flights of the human spirit in the regions of poetic imagination and perception."

After an elaborate description of Old Bengali and Middle Bengali works, the author analyses the origin and the characteristics of the dialects of Bengali. Prof. Chatterjee here breaks new ground, and the masterly treatment is in every way worthy of the distinguished Bengali scholar. Prof. Chatterjee makes the following observations about the most arresting feature of modern Bengali—the ascendancy of West Bengali and particularly of the Calcutta dialect as the common literary dialect of Bengal. Literary Bengali of prose, during the greater part of the 19th century, was a doubly artificial language; and with its forms belonging to middle Bengali, and its vocabulary highly Sanskritised, it could only be compared to a "Modern English" with a Chaucerian grammar and a super-Johnsonian vocabulary, if such a thing could be conceived.

...Good simple prose which had a relation to every-day life was occasionally written but the forms of the verb remained archaic. The colloquial, occasionally attempted to be represented in a work like Carey's "Dialogues" (1816) went along its own line, and the stilted Sanskritised "Sādhubbāsa" carefully avoided its contamination. In the meanwhile, Calcutta became the intellectual centre of the Bengali people and through literature and actual contact in life, the Calcutta form of Bengali spread and infected the dialects. The actual spoken language gradually came to its own in a mass of unconventional literature, and in ephemeral poetry. and it attained to dignity in the early writings of Rabindranath Tagore. It now reigns supreme in the drama and to a great extent in the conversational passages in novels. In poetry the colloquial shares honours with the literary, both forms being used in the same poem, nay, in the same line side by side, it has become a serious novel of the "high" language of prose as well, and observing the fact that the colloquial of Calcutta has become the speech of educated classes everywhere in Bengal, it may be predicted that in about another half of a century, the disuse to the largest scale imaginable, if not, the entire suppression of the literary language will be in the course of things."

The appendices to the Introduction treat about (i) the affinities of the new Indo-Aryan languages as amongst themselves, (ii) in relation to the Dravidian, (iii) old Bengali place-names from inscriptions, (iv) the vocabulary of Bengali, and (v) Bengali orthography. Exigencies of space prevent us from commenting on each of these topics, but as, from the standpoint of South India, the relationship of Dravidian and Indo-Aryan is full of

interest, we shall briefly summarise here Prof. Chatterjee's views.

The points of similarity between Indo-Aryan and Dravidian, showing probable influence of the latter, have been divided by Prof. Chatterjee under four headings: (a) Phonetic, (b) Morphological, (c) Syntactical, (d) Glossic.

In this connection it may be pointed out that the existence of Dravidian influence on Indo-Aryan cannot, in the present state of our knowledge, be definitely affirmed excepting probably in the matter of vocabulary. This has been referred to by Prof. Jules Bloch in a paper on Sanskrit and Dravidian contributed to the "Bulletin de la Societe Linguistique."*

Another point to be noted is that the influence of Dravidian, which could be definitely proved, little though it may have been, began to be exerted even from Vedic times, as is evidenced by the influence of Dravidian cults and vocabulary on Vedic religion and Vedic speech respectively.

The resemblances pointed out by Prof. Chatterjee may briefly be summarised thus:—

(a) PHONETIC.

(1) The avoidance of hiatus in Vedic and Sanskrit by the insertion of "y" "w" between "Udvytta" vowels, and rarely of a nasal (in a compound word) in spoken middle Indo-Aryan down to new Indo-Aryan times. This is a Dravidian tendency.

(2) Comparative absence of spirants. The change of the Indo-Iranian spirant '(zh)' 'z' to the stop '(jh)' 'j' might have been brought about in India in Dravidian surroundings.

* "En l'état actuel de nos connaissances, rien ne permet d'affirmer que l'aspect pris par l'aryen dans l'Inde soit dû à son adoption par des populations de langue Dravidiennes."—Jules Bloch.

(3) The occurrence of cerebrals in Indo-Aryan times may be due to Dravidian. Prof. Bloch would bring in natural causes and indigenous influence to explain their origin.†

(4) Insertions of short vowels by anaptyxis or swarabhakti as in the Dravidian pronunciation of *Brahmanan* as *Pirāmmānan*, *mittran* as *mittiran*, etc. Prof. Bloch is of opinion that this need not be attributed to Dravidian influence as the change can be traced to very ancient times long before the contact between Aryan and Dravidian in India.†

(b) MORPHOLOGICAL.

(1) The gradual disuse of propositions and the rise of post-positional affixes, as in Dravidian. This was prominent in MIA and NIA types.

(2) The use of verbal forms, participles and adjectives as post positions in declensions.

(3) Absence of affixes in the comparison of the adjective in both NIA and Dravidian.

(4) The development in NIA and Dravidian of conjunctives and participles with an adverbial function.

(5) An almost wholesale disuse of OIA moods and tenses under the influence of Dravidian and the increasing use of the participial forms to the exclusion of Indo-European finite verbal forms.‡

(6) Onomatopoeic formations on a lavish scale characteristic of NIA and Dravidian.

(7) Presence of echo-words in modern Indo-Aryan and Dravidian as in Bengali *ghora-tora* and Tamil *kudirei-kidiri*, etc.

† Vide Prof. Bloch's article on "Sanskrit et Dravidien" in the "Bulletin de la Societe Linguistique," Part I, Vol. XXV.

‡ Prof. Bloch strongly doubts this, in the article cited above.

(c) SYNTACTICAL.

The order of words, the omission of the copula, the similarity of idioms are some of the resemblances under this category.

(d) GLOSSIC.

Word-borrowings in NIA from Dravidian from early Vedic times.

In the chapters on phonology, amongst other topics, are to be found interesting discussions of the accent-system of NIA and of Bengali, the origin of the Bengali systems of versification, and detailed accounts of phonological features like Umlaut, Epenthesis, Nasalisation, Prosthesis, Aspiration, Deaspiration, Metathesis and the influence of foreign elements. These topics are intensely interesting to all students of Comparative Linguistics. The student of Dravidian Linguistics in particular will find much thought-provoking material here.

The second volume dealing with morphology, which we have to pass by without comment owing to want of space, is of equal importance to the student of modern Linguistics.

A perusal of the above short and necessarily imperfect summary of Prof. Chatterjee's work is enough to convince the reader that in Prof. Chatterjee we have a masterly researcher whose labours challenge comparison with the best that has yet been achieved in the whole field of Linguistics.

Well done, son of India! We wish you God-speed in your future work!

PRIMARY EDUCATION IN
BURMA: 1925-26.

Education in Burma, as in India, is mostly controlled by what are known as Local Education Authorities. These number nearly 100 and include 50 Municipal Committees, 10 Town Committees, 22 District School Boards and 6 Joint School Boards. There are besides 22 Deputy Commissioners in charge of education in excluded areas. In other words, "the Municipal and Town Committees control 562 schools or 10 p. c. of the total, the Joint School Boards 816 or 15 p. c.; the Deputy Commissioners 625 or 11 p. c.; the remainder no less than 3,469 or 63 p. c. are under the control of the 22 District Boards." During the year the number of Boys' Schools rose by 184 to 3,584 and that of Girls' Schools by 42 to 677. The total cost of primary education which was nearly 12½ lakhs in 1925 went up by a little over two lakhs to nearly 15 lakhs, Government contributing as much as 88 p. c., fees yielding 6 p. c. and other sources an equal proportion. Thus out of a total revenue of about 1040 lakhs, primary education had only a paltry sum of 12½ lakhs or a little in excess of 1½ p. c. This is most inadequate, considering how much national progress depends upon mass education. Nor can we regard, as the Director of Public Instruction in Burma does, the movement for compulsory education in 1921 and 1922, which culminated in the passing of Compulsory Education Acts in some provinces, as an "epidemic." Far from being undesirable, as epidemics are, the movement in question was a step in the right direction and deserved all possible encouragement. Blessed with a Director who looks upon it as a thing to be shunned like the plague, it is no wonder the contagion was not allowed to spread to

Burma. The result is that Burma is even now without its Compulsory Education Act. If we understand him aright, the Director seems to think that an Act of the kind is unnecessary for the spread of literacy. He cites in his support the example of Baroda, where he says, after thirty years of free and compulsory education, the proportion of literates is less than half that of Burma. We do not propose to go here into the causes that have contributed to the failure of the Act in Baroda. But we can cite a number of instances among the advanced countries of Europe where compulsion has succeeded in removing illiteracy. Japan, in Asia, is a noteworthy example of success in the same direction. With the existence of schools conducted by Pongyis in almost every village in Burma, the problem of spreading primary education in that province ought to be easy of solution. It may be that the instruction imparted in these schools leaves much to be desired. But it is not impossible to remedy those defects and adapt the system so as to suit the changed needs of modern times. By utilising this agency which is, according to the report, "enjoying the respect and confidence of the people" we are sure the task of universalising primary education in Burma will be made considerably easy. In the present circumstances, our aim should be, as wide a diffusion of primary education as possible, and in

attaining it no means already at our disposal should be overlooked or neglected.

Burma can boast of a number of national schools under the control of the Council of National Education. As every one knows, these schools, started in the hey-day of Non-Co-operation, were not very much different from Government schools. Possessing no market value, they gradually suffered in competition with Government institutions and are now in a miserable condition.

Female education, though in a better condition than in this country, does not seem to be making as rapid progress as it should. The Report says that 19 p. c. of the girls of school-going age are actually under instruction, the corresponding figure for boys being 54 p. c. The real question with regard to female education in Burma as in India is how to make the girls continue sufficiently long in school. What happens at present is that their education comes to a premature end, thanks mainly to the social conditions; and only a very small proportion succeeds in reaching the higher stages. In Burma "only 4½ p. c. of the total attendance is found in the middle stage, less than 1 p. c. in the High, and less than one per 1000 at the University." This is a deplorable state of affairs which must be remedied soon.—*The Servant of India*: 24-2-27.

BOOKS BY P. V. JAGADISAYYAR, of the Archaeological Dept., Madras.

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SCHOOL MEDICAL INSPECTION.

This branch of health work is still in its infancy in India. The normal development of infant welfare work in Europe, especially in regard to the child between 1 and 5 years, i.e., the pre-school child, is now assuming a more definite organisation and part of this scheme is that this activity should be linked up with the school work largely through making use of the school treatment centres. It will be a very long time before any such system materialises in India; but the first step is for large Municipalities to get down to systematic school inspection. The question is a financial one, as plenty of good young Indian graduates must be looking for work of this kind. The Health Officer of Simla has set a very good example in a small way. Once established municipally it is bound to extend into the rural areas in time. *Burma.*—Out of 267 schools, 119 had medical officers as against 83 in the previous year. Medical inspection has not yet been adopted by all schools. Children examined numbered 15,874—7,395 in 1923. Only 492 were found unprotected against small-pox; 20 per cent. of those examined were found protected by re-vaccination. The care of teeth is greatly neglected. A marked increase in the number of children with defective eyes, enlarged

tonsils and adenoids was noticed. *Central Provinces.*—50,400 boys and 5,637 girls were examined by dispensary medical officers against 46,196 boys and 5,260 girls in 1923. Of these 427 were found unvaccinated, 888 with enlarged spleen and 739 with contagious diseases. In rural areas 1,066 schools were inspected and 53,594 children examined. Of these 1,659 were found unvaccinated, 2,196 with enlarged spleen and 1,564 with contagious and other diseases. *Bengal Presidency.*—The total number of schools and boys examined was 93 and 5,741, respectively, as against 73 and 4,316 in 1923. Of the boys examined, 19 per cent. were well-nourished, 62 per cent. in fair condition, and 19 per cent. ill-nourished. Nine per cent. were found to have skin disease, 8 per cent. defective teeth, 9.3 defective vision and .8 ear trouble. 1.5 per cent. were detected unvaccinated. 94 or 1.6 per cent. showed enlarged spleens. Altogether 65 per cent. showed some bodily defect and in the case of 2,465 boys, parents or guardians were notified that immediate treatment was required. *Bihar and Orissa.*—There are five school medical officers. They inspected 246 schools, and examined 11,392 students. Several points of general importance have been brought forward, particularly the question of insufficiency of diet of students, the prevalence of defective vision and the need of spectacles by many students. The scheme is getting better known and more appreciated.—*Wealth and Welfare*, Lucknow: 25-2-27.



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Reviews and Notices:

THE INDIA OFFICE, BY SIR MALCOLM C. C. SETON,
DEPUTY UNDER-SECRETARY OF STATE IN THE
INDIA OFFICE—IN THE WHITEHALL SERIES.
(LONDON: G. P. PUTNAM'S, SONS, LTD. 1926).
Pp. 299. Price: 7s. 6d. net.

According to the Publishers the aim of the Whitehall Series is to provide accurate and authoritative information about the great Departments of the Imperial Government which may be useful to legislators, public servants and students alike. This volume devoted to the description of the great India Office is by Sir Malcolm Seton, who has put in a long service there and has been Deputy Under-Secretary since 1914. He traces in the first part of the book the growth of the East India Company and the Board of Control—incidentally noting that when the Company was superseded in 1858 it was found very difficult to grade together the two sets of officials of the two organisations who were to man the New India Office, because "the East India Company's officials were so superior to those of the Board," the former having had the benefit of the services of eminent men like the two Mills and Peacock as Examiners of its Indian correspondence. In this section and in the chapters (XIV and XVI) dealing with the India Office itself, its staff, library and records, it is a supplement to the learned work of Sir William Foster, recently published—"The East India House: Its History and Associations" (1924). Facetious remarks have been made of the India Office from time to time, as when Charles Lamb, the Essayist, who was a clerk there in the early decades of the 19th century said: "The Committee have formally abolished all holy-days whatsoever, for which may the Devil who keeps no holy-days, have them in his eternal burning workshop";—and again when an M. P. who had been denouncing abuses to an official in the Office, said: "The India Office is like Hell. I passed along miles of gloomy corridors and at the end I met the Devil himself!"

According to Lord George Hamilton in his *Parliamentary Reminiscences* (1868—85), the India Office is like a miniature government in itself; and "there is not a branch of administrative or executive work connected with the big government which is not represented inside the office."

Sir Malcolm Seton describes the Secretary of State in Council, the procedure of the India Office, "intolerably cumbrous and dilatory," till the Act of 1919 simplified and accelerated it to some extent. No one of all the distinguished roll of Secretaries of State has actually become Prime Minister except the Earl of Salisbury; and no ex-Viceroy has ever come to the India Office, though an Ex-Secretary of State, Lord Ripon, became the Viceroy in 1880. The Government of India, the Parliamentary control exercised by the Imperial Government, the co-operation and occasional conflicts between the Secretaries of State and the Viceroys, both of pregnant results to India, are well sketched. Indeed regarding the last point we are told, on the authority of published memoirs, how the actual disagreement between Lord Northbrook and the Disraeli Ministry rose not on account of party prepossessions, but out of a difference of conception as to the position of the Government of India, while the same Viceroy insisted on the abolition of the Income-tax against the wishes of his political comrade, the Duke of Argyll (Secretary of State, 1868—74). Masterful Secretaries of State like Lords Salisbury and Morley, were acutely troubled as to the harmonious way of combining the independence of initiative which the Indian Government ought to possess with the responsibility for the final decision which should always inhere in the Secretary of State.

The chapters on Finance, Exchange and Currency, Railways, Public Works, etc., have been written by Mr. S. F. Stewart, Assistant Under-Secretary of State and are informing in their main outlines. The accounts of the various Indian Services, of the methods of their recruitment, tenure, etc., and of the fundamental changes

introduced by the Act of 1919 in the relations between the Secretary of State and the Services is clear and brief. The treatment of the Political and Secret Department of the India Office which is the successor of the old Secret Committee of the India House dealing both with foreign relations and with the Indian States, shows us that the India Office does not handle the work occasioned by India's membership in the League of Nations and her co-operation in International Economic and Labour Conferences or the problems arising from Indian emigration to the other parts of the Empire or abroad. The Army and the Medical Services, the distinct Indian Orders of Knighthood, the problems of Indian emigration are all also treated in this book—as well as the Office of the High Commissioner for India, which is entirely distinct from the India Office and which has taken over the Agency work which was hitherto discharged by the latter. On the whole the book is a very good and instructive supplement to the standard histories of British India and to the treatises on the Indian Constitution, which all pay little attention to the various phases of the Home Administration of India.

A PRIMER OF ROMAN HISTORY, BY ALEXANDER DUTHIE. (GEORGE G. HARRAP & CO., LTD., LONDON). Pp. 168. Price: 2s.

This small book encompasses within the small space of 160 pages an outline, but nevertheless clear and basic, account of Roman History from the earliest times down to the epoch of the Barbarian Invasions. It treats of the main currents and landmarks of the development of the Roman Constitution from the Monarchical to the Republican and on again into the Imperial stage, as well as the growth of Italian Dominion and Mediterranean Empire—in a way which brings out the meaning and importance of the events very forcibly and fairly fully also, judging from the standard of requirements of the Secondary School and Intermediate students. One merit of the book that

marks it off as being above the class of ordinary manuals is that it does not talk down "to some imaginary reader of very tender years and slender intelligence," but gives the student a real acquaintance with Roman progress, proceeding with pictures of the ethics and art and culture of the Romans as these grew up and changed from age to age. A special chapter at the end is devoted to the description of Roman social life. Five maps, of which one deals with the Empire and another with Asia and Greece and a list of principal dates add to the value of the book which is an introduction to the study of larger works on the subject like the histories of How and Leigh, Myres, Th. Mommsen, etc.

ECONOMIC HISTORY OF ENGLAND, BY M. BRIGGS. 2ND EDITION. (THE UNIVERSITY TUTORIAL PRESS, LTD., LONDON, 1926). Pp. 548. Price: 8s. 6d.

This edition is an improvement on the first which was published in 1914, containing as it does, a new chapter (XX) dealing with the Great War and its economic consequences, besides a small number of minor changes, and additions made or incorporated in various other places in the body of the book, particularly in the latter portions. The chapter on Ireland is brought down to the present day, when the new Dominion, the Irish Free State, is trying to achieve its task of economic reconstruction with some success. The new additional chapter lays stress on the development of State control through the epoch of the war, which continued on for a year or two after the Armistice, on the mutual indebtedness of the various nations, on the McKenna Duties intended to protect English manufacturers from unfair competition and on the work of social reconstruction proceeding apace. Labour disputes and Trade unionism come in for their own share. In the last chapters a survey of the chief features in the economic evolution of the country is made—leading to the conclusion that in the social organisation, the

caste system still exists in a modified form and exists both vertically and horizontally.

This book does not give undue prominence to mediæval economic history as is done by some writers and treats of the progress effected in modern times in the various branches of economic life in a coherent and connected form. It can be recommended as a very useful text-book for the College student who has got to study British economic history.

THE JOURNAL OF ORIENTAL RESEARCH, MADRAS. VOL. I, PART I—JANUARY, 1927. PUBLISHED BY M. R. RY K. BALASUBRAMANIA IYER, MANAGING EDITOR. ANNUAL SUBSCRIPTION: INLAND Rs. 6; FOREIGN 10s.

We welcome this new Journal which is devoted to Oriental Research and aims at throwing light on important problems connected with Indian literature and chronology. Indian scholarship has been sufficiently long in leading strings in modern times and it is certainly time for it to come of age. Indians must deprecate the present habit of looking with yearning eyes on the approval of foreign savants. We know that truth is welcome from all quarters. But we cannot allow ourselves to be dominated by the crude theories of Western scholarship working on insufficient knowledge and incomplete data. We must overhaul all branches of knowledge without fear or favour and must be fired by the single passion of search for truth, wherever our search may lead us. Such is the laudable ideal which should be kept before the organisers of this Journal.

In the first article on *Problems of Identity in the Cultural History of India*, Professor S. Kuppuswami Sastriar is at considerable pains to throw light on one of the puzzles of Indian scholarship. In respect of the three verses cited by Sri Sankarācharya at the end of the Samanvaya Adhikarana, Vachaspati says in his *Bhāmātī* that the verses were the works of a knower of Brahman (Brahmavid) Professor Kuppuswami Sastriar says that Atmasvarupa and Madhavamantri and Amalananda ascribe the verses to Acharya Sundara

Pāndya. But this attempt to identify Acharya Sundara Pandya with Koon Pandya who belonged to the age of Tiru Jnana Sambandhar cannot be pronounced to be a success. Equally untenable is his view that Acharya Sundara Pandya may be Tiru Jnana Sambandar himself. These guesses are not supported by any proof. A recent monograph on Sri Sankaracharya shows that his age cannot be later than the 1st century B.C. The age of Tiru Jnana Sambandhar, 6th century A.D., is one of the well-settled points of Indian chronology. History does not know Koon Pandyan or Tiru Jnana Sambandhar to have been a Sanskrit scholar or an Advaitic teacher at all.

Another important article is that on *Indra—The Rig-vedic Atman* by Miss O. K. Anantalakshmi. In an era of anti-Sāyana tendencies it is a pleasant surprise to learn from her that "the tendency of our progress in Vedic interpretation seems to be towards rather than away from traditional explanations." We have had enough of the explanations about Indra as the rain-god and welcome the effort to understand and appreciate the Adhyātmika school of Vedic interpretation.

Equally interesting is Dr. Sankaran's explanation of *Kuntaka's Attitude Towards the Theories of Dhvani and Rasa*. There is an attempt to assess the value of Kuntaka's contribution to æstheticism in Mr. K. S. Ramaswami Sastri's forthcoming work on *Indian Aesthetics*. Dr. Sankaran rightly stresses the fact that "Dhvani and Rasa were not denied but were given a distinct and honoured place in his scheme of *Vakrata*."

Another article of note is Mr. T.R. Chintamani's essay on *The Date of Srikantha and His Brahma Mimamsa*. He tries to prove that Srikantha was long posterior to Sri Ramanuja and was a disciple of Meykanda who belonged to the 13th century. But this goes against current tradition and the proofs given by him are found on examination to be flimsy and fragile. Srikantha does not discuss Sri Sankara's views in detail as Sri Ramanuja does.

Other articles of interest are Dr. Kunban Raja's *Svaha, Svadha and Svasti*; Professor Kuppuswami Sastriar's *Bhadanta*; Mr. K. G. Subramaniam's article on *The Authorship of Unāde Sūtras*; Mr. A. S. Krishna Rao's article on *The Evolution of Vyāpti*; Mr. A. A. Venkatramiah's *Vyāghras and Their Identification*; and Mr. D. S. Sarma's *Mystic Way of the Bhagavad Gita*.

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The Educational Review.

Addison refers somewhere in the *Spectator* to the fact that when fashions are dropped by the city, they are taken up by the country. Now that the ideals of the old Public School system of education are getting somewhat discounted in England, they seem to be catching the fancy of a section of people in India. Discussing the various systems of education, Prof. Bertrand Russell writes in his recent book on *Education, Especially in Early Childhood*: "Dr. Arnold's system, which has remained in force in English Public Schools to the present day, had another fact, namely, that it was aristocratic. The aim was to train men for positions of authority and power, whether at home or in distant parts of the Empire. An aristocracy, if it is to survive, needs certain virtues. These were to be imparted at school. The product was to be energetic, stoical, physically fit, possessed of certain unalterable beliefs, with high standards of rectitude and convinced that it had an important mission in the world. To a surprising extent, these results were achieved. Intellect was sacrificed to them, because intellect might produce doubt. Sympathy was sacrificed because it might interfere with governing 'inferior' races or classes. Kindliness was sacrificed for the sake of toughness; imagination for the sake of firmness. In an unchanging world, the result might have been a permanent aristocracy, possessing the merits and defects of the

Spartans. But aristocracy is out of date and subject populations will no longer obey even the most wise and virtuous rulers. The rulers are driven into brutality and brutality further encourages revolt. The complexity of the modern world increasingly requires intelligence, and Dr. Arnold sacrificed intelligence to "virtue." The battle of Waterloo may have been won on the playing fields of Eton, but the British Empire is being lost there. The modern world needs a different type, with more imaginative sympathy, more intellectual suppleness, less belief in bulldog courage and more belief in technical knowledge. The administrator of the future must be the servant of free citizens, not the benevolent ruler of admiring subjects. The aristocratic tradition embedded in British higher education is its bane. Perhaps this tradition can be eliminated gradually; perhaps the older educational institutions will be found incapable of adapting themselves." But the Hon. Mr. Dass of the Government of India and some of his friends have discovered that the most pressing need of the country to-day is a Public School on English lines and have issued an appeal for eight lakhs of rupees, with the approval and blessings of the Viceroy himself! We are sure there are more urgent educational needs in the country to-day than the running of an aristocratic public school in which pupils are expected to pay a monthly fee of Rs. 125. The poor educational work of the various Raj Kumar Colleges and the failure of a similar attempt in Bengal some years

back must have served as a warning to the organisers of this new scheme. As an attraction of the scheme, we are told that the Headmaster will be an Englishman and at least two of the Assistants will be Englishmen—we should have thought these were precisely the reasons why the institution would not receive popular sympathy and support. It is of course a relic of what Mahatma Gandhi has called 'slave mentality' which makes Mr. Dass and his friends think that there is some magic virtue in the Headmaster being an Englishman—it will only have the consequence of making the pupils look upon themselves as people of an inferior race. And yet the organisers tell us that they will preserve the Indian moral and spiritual atmosphere in the place. We can only foresee failure for the institution and the production of a class of snobbish young men out of all sympathy with the masses of the people. However much the scheme may appeal to a select circle of people who may pride themselves on their aristocratic position, it is an experiment which will not contribute much to the educational development of the country.

The want of security of tenure and other suitable conditions of service has been the chief failing in the relationship of school-masters and the management of educational institutions in India. It will interest teachers in Secondary Schools in Southern India to know that the Educational Depart-

ment of the United Provinces is tackling this question seriously and proposes the enforcement of written contracts with well-defined and generous conditions of service as a necessary condition of the recognition of schools. We reproduce the draft agreement elsewhere (see Appendix)—it is being circulated for opinion and we have no doubt it will be made even more liberal in its conditions before it is finally adopted. It will be noticed that the agreement secures many privileges which are often apt to be violated by managers of institutions in the absence of such contracts. The following improvements can properly be effected in the draft. As the ordinary teacher is not an executive officer, there is no reason why he should not be allowed to leave the station on a holiday without taking permission of the Headmaster. The holidays which intervene or adjoin the casual leave should be excluded from the total number of fourteen days' casual leave proposed to be allowed to teachers. Immorality is too vague a charge for which a teacher may be liable for dismissal, and is likely to be abused. It may therefore be changed into 'moral turpitude.' We should advise the South India Teachers' Union to agitate for similar action on the part of the Government of Madras.

The Jubilee of the Government College, Rajahmundry, which is now being celebrated, might very well serve as an occasion for referring to

The Andhra University.

one or two serious problems already agitating the Andhra University. The mistake of having chosen Bezwada as the head-quarters of the University is already making itself felt and situated at a place where there is not even a Second-grade College, the University is not able to aim at anything more than the mere routine of examination work and periodical meetings of the ordinary academic bodies. It is undoubtedly desirable that all Honours and Post-graduate work should be concentrated at one centre, but obviously, it cannot be at Bezwada, where no facilities exist for the purpose at present and where it would be necessary to incur enormous expenditure to create them. As the Director pointed out recently at a meeting of the Academic Council in Bezwada, it is easier to start Honours courses at a place where there is already a well-equipped college as at Rajahmundry than do so at a new centre, and we hope that people will rise above their petty district patriotisms and allow the Rajahmundry College to develop into a high-class post-graduate institution. Thanks to the remission of provincial contributions by the Government of India, the Government of Madras should now be able to make liberal grants for the Andhra and Madras Universities. We are glad that the Minister of Education announced in the Legislative Council the other day, that in the Supplementary Budget, adequate provision will be made for the purposes of the work of the Andhra University and we shall await further details. We trust the needs of the

Madras University will not be forgotten in the anxiety of the Government to do justice to the needs of the younger institution. We need hardly say that the University of Madras is receiving very little assistance from the Local Government.

We are glad to find that the Inter-University Board has just held another annual session at Benares and discussed many matters of academic interest. Calcutta, which did not originally join the Board, has just joined, and Lucknow, another University, which also kept out at the beginning, has also resolved upon membership. It is hoped that with all this added strength, the Board will be able to produce even more useful work in the coming year and play a prominent part in advancing the cause of higher education in India. One of the reasons why some of the Universities looked askance at the formation of the Board at the beginning was the fear that it would increase Government control on the Universities. It is therefore interesting to note that at the recent session, the Board enunciated the principle that the Government should make block-grants to Universities for several years at a time and should not interfere in the details of their administration. We congratulate Sir R. Venkataratnam Naidu, the Vice-Chancellor of the Madras University, on his election as Chairman of the Board for the coming year and Prof. P. Seshadri of the Benares Hindu University on his appointment as Secre-

tary for the period. The Board recorded its appreciation, at its meeting, of the valuable services rendered by the retiring Secretary, Mr. N. S. Subba Row, M.A., Bar.-at-Law, of the University of Mysore.

We invite the attention of teachers in our Secondary Schools to a valuable publication just issued by the Bureau of Education with the Government of India, *Bilingualism*, by Mr. Michael West, being Occasional Report, No. 13. There are few countries in the world where there is such an extensive use of bilingualism as India and the teaching of English as a foreign language to thousands of pupils in the country through several years of their education presents very serious problems. Mr. West tackles some of them successfully and though the book is written with special reference to conditions in Bengal, it will be found highly useful in other parts of India as well. Mr. West has many new suggestions to make with regard to the teaching of English, many of which are at least worth being experimented upon. Sir Michael Sadler has gone to the extent of praising the book in the following words in his Introduction: "This is a book of creative power. It will touch the imagination, and colour the judgment of all who read it. It is scientific, compassionate, practical. It brings a message to India and to Britain. And not to India and to Britain only, but to men and women in all countries East and West." This praise may seem a trifle extravagant, but there is an aspect of

Mr. West's book which is worthy of special praise. The whole book is based on experiments conducted by Mr. West himself and if every teacher in India had the same zeal in the study and practice of pedagogic principles, we should see a mighty revolution in the educational conditions of India.

It is about a year since Lord Irwin took charge of affairs in India, though he has not yet given any practical demonstration of his interest in education. India is still awaiting the fulfilment of the hopes raised on his appointment as Viceroy of India. In his recent address at the Convocation of the Delhi University, His Excellency however made some observations on Indian Universities worthy of some special attention. He complained that University degrees were apt to be judged mainly for their commercial value. "They try to make up a nicely-audited balance-sheet expressing culture and learning as an asset to be valued in pounds, shillings and pence and treating knowledge which has no market value as bad debt.....Here in India many look on a University as little more than a turn-stile leading into the arena of Government service and, if they find no service open to them, are apt to feel that they have been cheated as if they had paid for admission to a place of entertainment and then found there was no room for them. We must obviously clear the minds of any such false sense of values." Another idea on which His

Lord Irwin on
Indian
Universities.

Excellency laid emphasis was that Indian Universities did not aim at developing any individuality, the products of one University being just like those of another. He said:

Now it is perhaps dangerous for one who has been so short a time in India to venture to pass any judgment on Indian University teaching, but it has occurred to me that in one respect Indian Universities lack something of the individuality that is enjoyed by Universities elsewhere in England and Scotland. Each University has its own very definite individuality and each makes its own very special contribution to the sum total of knowledge and culture. The Northern English Universities, for example, reflect with great fidelity the needs of their industrial and textile environment in their thriving technological studies. The Bristol University is a great centre for agricultural research. Edinburgh leads the way in certain forms of medical research, while even those who are in no way connected with them will acknowledge that Oxford and Cambridge play a great part in the general intellectual life

not only of Great Britain but of the whole of the English-speaking world. That is the sort of thing which I believe might be of great advantage to India. I see no reason why Bombay should not be a great centre of textile research both as regards fabric and machinery for the whole East. Similarly Patna University need not be deterred by the institution of the new School of Mining at Dhanbad from developing a strong school of mining, engineering and geology. Calcutta, the head-quarters of the Bengali people with their ancient culture, might win place and renown as a centre for the study of the humanities. In short there might well be division of labour among the Indian Universities in which each could make its own unique contribution to the intellectual life of the whole apart from the stimulus to the growth of knowledge which such a development would give, it would have another notable result through the migration of students from province to province so far as considerations of distance permit and thus by the way of knowledge encourage a truer and stronger spirit of nationalism than to-day exists.

in the said school on the following terms:—

1. The Teacher's employment shall begin from the.....day of.....19..... He shall be employed in the first instance for six months' probation and shall be paid a monthly salary of Rs.....

2. If confirmed in his appointment at the end of his period of probation, the Teacher shall be employed on a monthly salary of Rs.....

3. The Committee shall pay the Teacher the said monthly salary not later than the eighth day of the month following that for which the salary is earned, and the Teacher shall on receiving the salary sign the acquittance roll (duly stamped, if necessary) in token of such receipt.

APPENDIX.

TEACHERS AND MANAGERS.

DRAFT AGREEMENT.*

AN AGREEMENT made this..... day of.....192..... between..... of..... (hereinafter called the Teacher) of the one part, and the Managing Committee of the..... School (hereinafter called the Committee) of the other part. The Committee hereby agrees to employ the Teacher and the Teacher hereby agrees to serve as.....

*Draft of Agreement between teachers and managers proposed to be enforced as a condition of recognition of Secondary Schools in the United Provinces. See Editorial Note on the subject.

4. The Teacher shall perform all such duties connected with the work of a school as shall be required of him by the Headmaster, and shall, in carrying out those duties at all times, obey the direction of the Headmaster in charge of the school. No other work shall be required of the Teacher, and he shall not be prohibited from engaging outside of school-hours in any occupation which does not interfere with the due and efficient discharge of his school duties.

5. Except during vacation, the Teacher shall not leave the station in which the school is situated either on holidays or working days without having first obtained the written permission of the Headmaster.

6. The Teacher may be allowed leave as follows:—

(a) *By the Headmaster.*—Not more than fourteen days' casual leave in any school year, to include holidays which may occur immediately before and after or during the period of absence.

(b) *By the Manager* (on application submitted through the Headmaster):

(i) Not more than one month's leave on full pay on medical certificate for every completed three years of service in the school, but not more than three months at any one time.

(ii) Not more than one month's leave on half pay for every completed year of service, but not more than three months at any one time.

(c) *By the Committee* (on application submitted through the Headmaster):—Such other leave on such terms and for such period as

the Committee may in each individual case decide.

Leave cannot be claimed as a right. Leave shall be granted with due regard to the exigencies of the school, and when leave is refused, the grounds of refusal shall be recorded on the application.

7. The Committee may at any time by a resolution passed by a majority of all the members of the Committee dismiss the Teacher without notice for any one or more of the following reasons:—

(a) Immorality,

(b) Insubordination, and

(c) Deliberate neglect of duty.

Before passing such a resolution of dismissal under this clause, the Committee shall give the Teacher a written statement of the charges against him and allow him at least ten days in which to submit a written reply thereto. If dismissed under this clause, the Teacher shall be given a copy of the resolution by which he is dismissed with a written statement of the grounds of his dismissal; he shall also be paid his salary up to, and including the day on, which the said resolution is passed.

8. While the Teacher is on probation as provided in clause 1, the Committee may at any time terminate this agreement by giving the Teacher one calendar month's notice in writing or upon paying to the Teacher a sum equal to his salary for one month in addition to any pay which he has then earned. The Teacher may similarly terminate this agreement by submitting one calendar month's notice in writing to the Committee through the Headmaster or paying to the Committee a sum equal to his salary for one month.

9. If by the end of his period of probation, no notice of the termination of this agreement, as provided for under clause 8, has been received or given by the Teacher, he will *ipso facto* be confirmed in his appointment.

10. When the Teacher has been confirmed, neither the Teacher nor the Committee, subject to the provisions of clause 7, shall terminate this agreement except by giving to the other two calendar months' notice in writing to take effect from the eighth day of the succeeding month, or by paying to the other a sum equivalent to twice the monthly salary which the Teacher is then earning.

11. If the Teacher violates the provisions of either clause 8 or clause 10, he will forfeit all pay then due to him and the Committee may dismiss him.

12. The Committee will not in exercising its rights under clause 8 or clause 10 terminate this agreement except by a resolution passed by a majority of all the members of the Committee, and also will not, except with the previous sanction (to be obtained in writing) of the Divisional Inspector of Schools, exercise its rights under clause 10 between the 1st day of January and the 31st day of March of any year.

13. Except as otherwise provided herein, and subject to any rules governing the powers of the Committee, any act which the Committee may do under the provisions of this agreement may be done by a vote of the majority of the Committee present and voting at a meeting regularly convened.

14. The parties to this agreement accept its conditions subject to such rules for the conduct of aided schools as may be issued from time to time by the Education Department, United Provinces.

In witness whereof the parties hereto have hereunto set their hands the day and year first above written.

Signed on behalf of the Committee by.....
..... under the authority of a
resolution of the Committee passed on.....
.....in the presence of—

Witness (1).....

Address.....

Witness (2).....

Address.....

Signed by the said Teacher.....
.....in the presence of—

Witness (1).....

Address.....

Witness (2).....

Address.....

N.B.—(i) In the case of an Intermediate College the word "School" where it occurs in the agreement should be altered to "College" and the word "Headmaster" to "Principal."

(ii) In cases where the school has no Managing Committee the necessary modifications should be made in the wording of the agreement.

(iii) In the case of schools having winter vacations "September" and "November" should be substituted for "January" and "March" respectively in clause 12.

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EDITED BY

E. STOKES, B.A., I.E.S.

INSPECTOR OF SCHOOLS, ROHILKHAND DIVISION, BAREILLY, UNITED PROVINCES.

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One of the most important of modern developments in this science is that made through the observation of individual differences. Although education is a social process and children are social in nature, yet we cannot deal with them too much in groups without doing great injustice to matters in which they are unlike. Studies made in Europe and America have their value for Indian teachers, but observations made in India, as Miss Gordon's have been, are of great value in enabling us to ascertain the similarities and differences with children of other countries, and the differences among groups and individuals here. Miss Gordon has not only given the result of her own observations but—what is even more important—she has shown teachers and others how they may observe for themselves.

The book surveys the more important problems connected with the study of child-nature. It deals with the stage of child development, with the processes of sense-perception, with play, hand-work, and fatigue, with exceptional children, both sub-normal and supra-normal, with measurements of intelligence, and with the application of the Kindergarten system to the Indian system. It is one of the books which the Academic Council on the recommendation of the Board of Studies in Teaching has declared as suitable for candidates for the L. T. degree. We hope that it may have a wide circulation as its influence is sure to be for good.

Education (Allahabad), March 1925.

The distinguished author of the book under review is one of the few enthusiasts in India who have taken to a systematic study of child-nature. The book embodies the results of close study by the author, not merely of the existing literature on the subject, but of the actual mental and physical growths of children, as witnessed by her in several schools in Britain and India where she has had the opportunity to work. Within a brief space of 200 pages, the author has contrived, in her plain, matter of fact, and at the same time, engaging style, to elucidate the various topics connected with child life such as the sense perception, play, the service of Hand in Mental Development, fatigue, exceptional children, measurement of Intelligence and the Kindergarten system; touching the various theories on these topics and supplementing them by her own views based on personal study and investigation. We would especially commend to our readers the beautiful and inspiring chapter on the Kindergarten system in which without going into technical detail, the author has surveyed the basic principles of the system and pleaded in accordance with these principles for the Indianisation of Indian education. We are sure that this little book will prove an excellent handbook for teachers as well as parents and others interested in the subject and kindle in them a deeper interest therein. It has been already recommended by the Academic Council of the Madras University as a suitable text-book for the students appearing for the L. T. Examination and we hope that other Universities will soon follow suit. We congratulate both the author and the publishers on this valuable publication and recommend every teacher to secure a copy thereof.

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A personality is the outcome of forces which are both hereditary and environmental so that child study must take account of both sets of factors. Much more is to be gained by teachers through the study of children for themselves than the mere perusal of books on the subject, however authoritative they may be. The trouble with so many students of other things as well as of child-nature is the evident desire to be spoon-fed. They desire to get their information at second-hand rather than take the trouble to study for themselves. In many instances teachers have not the technique necessary to observe intelligently. Very valuable, then, is Miss Gordon's chapter on 'How to Study a Child,' particularly for those who are beginners in child study, and it is a matter of vital concern as much for the parent as for the teacher.

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