

THE EDUCATIONAL REVIEW

Vol LIII. No. 10. Oct. 1947
No. 11. Nov. 1947



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VOL. LIII. NO. 10

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REGD. NO. M. 272

OCTOBER || 1947



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Annual Subscription inclusive
of Postage, Rs. 5.
Half-yearly Subscription, Rs. 3

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TRIPLICANE, MADRAS
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{ Foreign Subscription inclusive
of Postage Rs. 6-8-0.

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Date of Publication: The Review is published on the 29th of every month. Subscribers who do not receive the Review in time are requested to notify the management immediately. It may not be always possible to supply the missing copies, if complaints are made months after the event, nor under such circumstances could any enquiry be conducted in the matter.

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The Educational Review

A MONTHLY RECORD FOR INDIA

VOL. LIII

OCTOBER 1947

No. 10

INDUSTRIAL LABORATORIES*

BY DR. RM. ALAGAPPA CHETTIAR, M.A., D. LITT. LL.D., *Bar-at-law Madras.*

THE vigil has ended. Freedom has dawned. Political emancipation has come. We are grateful to Providence for the liberation from foreign domination. Is our task at an end? This is a question that everyone of us has to address himself to. If freedom from foreign domination is not followed by emancipation from ignorance and superstition, what will be the value and content of this new freedom? Mighty little indeed! The possibilities of human happiness resulting from the emancipation from ignorance are unfathomable. This is not mere Utopia. The dream can become a reality if the State and Society apply their minds to research in sciences and hasten the industrial progress of our great country. "Industrialise or perish!" might look a harsh slogan; but if one realises the real significance of the slogan, it will no longer appear to be harsh or a mere slogan. Industrial activity must place within the reach of every one of us a command over goods and material wealth, and leisure enough to enjoy it. Unless there is an ever-increasing tempo of planned industrialisation, backed up by scientific discoveries from laboratories, the happiness of the common man will continue to be a mere myth. Gone are the days when the few exploited the many, and may they never return, is the prayer and the devout resolution of every thinking man and woman in this country.

If prosperity is to trickle down to every member of society and, as I have already said, if sufficient leisure is to be made available for every member to participate in that prosperity, it is the duty of the State to have a planned policy of industrialisation accompanied by scientific research.

An American friend once put to me a most amazing suggestion somewhat in these terms: "Give us your country for a period of 25 years and we will transform it into a Fairyland." This might look a somewhat audacious and even impertinent suggestion; but if one ponders over it for a time, one would realise that what the American had in mind was a conviction that India's potentialities for plenty were immense and that the conversion of our dear Motherland into a State which assured prosperity for all, was within the realm of possibilities. If an American could say that, should it not be our pleasure and privilege to take the cue and work out a plan ourselves and attempt to achieve that goal with determination and steadfastness? Unfortunately, symptoms are not wanting in our country of men of power and position in thousands attempting to grab and accumulate wealth individually, and completely neglecting the State as such. So long as national wealth and national happiness, represented by the prosperity of the common citizen, are not kept in the forefront and actually achieved,

* Broadcast from Madras on 20-9-47 in the series, "Science—Handmaid of Industries" and published by kind permission of the All India Radio, Madras.

so long shall our day of deliverance be unattainable.

It has been said that disinterested intellectual curiosity is the life-blood of any great civilisation. Opportunities for such intellectual curiosity in the shape of scientific research must be provided by every State worth the name. The Universities and industrialists have their duty to play their part in this great national Renaissance, and every true discovery will mark a great milestone in the progress of civilisation. It is sad to observe that though research supports industry and keeps her up-to-date, industry does not in turn support research. It has become almost a curse that some of us should keep on asking the question what the use is of this discovery and that invention. Little do we realise that in the history of the world down the ages, discoveries when made were almost and always thought to be of very little consequence. We are familiar with the remark made by a Prime Minister of England after listening to a lecture of Faraday on the discovery of electricity by him. "It is all interesting, Mr. Faraday, but what is its use to us?" The great Michael Faraday made almost a prophetic reply saying: "Sir, you might think it is useless to-day; but one day you will realise its value by even making it an object of taxation for your exchequer." We in the Madras Presidency know to our cost how our Prime Ministers have really taken up the advice given by Faraday. In the field of research few blanks are drawn.

Science has increased man's control over nature and thereby has increased his happiness and well-being. It has increased the productivity of labour, and has made more necessities of life, and even luxuries to an extent, available for the bulk of the community. The advance of science has made for the union of intellectual activity and manual work. Scientific development has succeeded in making man even more independent of his environment. Machines take the work out of human hands and perform it a thousand times more quickly and efficiently. In short, science has extended the empire of man over the

material world and has increased his wealth and power. The boundaries of this empire will for ever widen. The doom of Empires has no terrors for this great domain.

In the ages gone by, the Prince and the man of power had as their machines what Aristotle called "living tools." They were the slaves. Abundant slave labour made it unnecessary then to enlist non-human force in industry. But apart from the disgusting and repellent aspect of such a procedure we are now faced with the pleasant problem of resorting to non-human machinery to increase the happiness of humanity at large, for the modern State thinks not in terms of Princes alone but of every peasant and worker. Scientific progress in the field of industry opens up vistas and panoramas which are too good to be believed but none the less true.

Let us take in passing the various fields in which science can be a good handmaid to industry. The agricultural industry takes pride of place in our country. What a sorry spectacle it is to observe that our country, known for her vastness of area, and her multitude of climatic conditions, fertilised by perennial rivers, endowed with many bounties of nature and peopled by one of the greatest races of the earth is passing through the pangs of a six-ounce ration with the constant danger of a break-down, even at that! If one acre of paddy field in Italy can yield 7200 lbs., if Japan can yield 6000 lbs. and if Russia can yield even more in the harvest, why is it that one acre will yield only, let us say, 2,000 lbs. here? There must be something radically wrong in our ploughing the fields, in preparing the soil, in irrigating the land and, in fact, in the entire agricultural operations from A to Z. Our agriculturist works perhaps hardest even without leisure. But that alone will not and does not satisfy his needs and let us ask: why should he slave like that? The fertiliser industry has got to be developed and our agriculturist has got to be taught the method and the manner of using that fertiliser. The science of soil erosion and conservation of chemicals in the soil must be brought within reach of

the agriculturist. The methods of plantation and harvest must be modernised, seed must be improved and the storing of grains in godowns must be made up-to-date. A watch against the insects and pests destroying the fair crop has to be kept and this knowledge must be made easily available to the ordinary agriculturist. With the application of scientific knowledge in the various branches above mentioned, the dependence of India on beggarly exports from foreign countries will happily come to a stop, and the philosophy of the Indian agriculturist will not be called into play to reconcile himself with the six-ounce ration. In the New Era of scientific agriculture, he will get what he needs and the Grow-More-Food campaign will certainly be a living reality instead of the farce it now is. A cartoonist has told us that G. M. F. really means Grow More Files and not Food.

Take next the industry of clothing, in the shape of cotton textiles. It is indeed an irony and a sad one at that, that the philosophy that should come to our rescue in times of calamity and danger is found rushed to our aid to persuade us to accept society as we find it with the evils which can easily be avoided. It is a tragedy that in a country which grows many millions of bales of cotton, leaders ascend the platform and exhort us to be satisfied with 5 yards per head per year. Why is it we are not able to grow a better and longer fibre of cotton than we really do? Is it beyond the realm of science to produce by importation of new varieties, improvement of seeds or better methods of irrigation, to produce a cotton fibre that can produce not the coarse cloth which everybody detests but a fine variety for which there is a rampant black market? When people of other countries are thinking in terms of a cloth whose crease will not disappear even after folding, is it to be the lot of the Indian to still wear clothes which will not come even below the knee. Gandhiji has often told us that he will not change his dress because he represents Daridranarayana. Should we not wear cloth not as a mere instrument of hiding our nakedness but as an apparel of art and beauty? All this

can be done only when science is pursued with an unwavering mind and singular devotion. The rayon fabric holds the key to another chest of treasures. With all the natural wealth of our forests and the pulp of the required variety available, is it not our duty to harness this new fibre to satisfy the desire and need of man and woman?

Let us now pass on to the field of metallurgy. Our country which laid claim in the dim recesses of past history to its mastery over metal, is now behind various nations in the production of steel. Considering the magnitude and extent of our country, the need for capital equipment and machinery for manufacture of consumer goods, it looks tragic beyond words to find our whole country producing less than two million tons of steel, compared to the ten millions of Germany and 25 millions of England and 65 millions of America. Our best is the Tata Iron & Steel Company. Even after the expansion programme of this great Company becomes a success and a *fait accompli*, we will still be very much below the danger level. It comes to this. Our unbuilt best cannot even be a good second to the undeveloped best of a war-damaged country like Germany. The amount of scientific research that is waiting to be done in the field of metal and coal is immense. When will that day dawn? When will India wake up after her long sleep down the corridor of Time and take her rightful place along the great nations of the world? This can happen only when scientific knowledge is relentlessly pursued by the student and the industrial chemist in the laboratory and such knowledge assiduously applied in the methods of production by the State and the Big Industrialist.

I can go on citing *ad infinitum* the fields of industry where scientific research is necessary. But I shall content myself by mentioning only one more industry, that is, that of electricity. That a country which has such great perennial rivers like the Ganga and the Brahmaputra and mountains and waterfalls of immemorial fame and grandeur, should still have thousands of

houses in cities even unlit by electric light, not to speak of having other electrically driven amenities, is a very sad situation indeed. It must be within the realm of practical possibility to see that every village in our country is provided with power from hydro-electric stations and electricity is made available in cheap and plentiful supply. This new servant will answer the many needs of man, and he will make the life of the citizen ever more bright and cheerful.

The atomic energy research marks the birth of a New Era of plenty, and let us prayerfully hope, of peace also. The fact that atomic energy, released in the disintegration of one ounce of water can steer Queen Elizabeth—a vessel of one lakh of tons—from Tilbury to New York, looks stranger than fiction. Rain made to order is a phenomenon that we have recently heard. These are not from the pages of the *Arabian Nights* but solid authentic news from laboratories. The activities of the T.V.A. in America tell us that Science and scientific research have robbed Nature of many of its horrors and harnessed it as a dutiful and loyal servant of man. Why should it be that the Indian child and citizen are denied this great and matchless service of Nature? To put it precisely, let me quote the man of precision. "What is sought in science", says Bacon, "should be a rich storehouse for the glory of the Creator and the relief of man's estate."

The light of Science should shed light on our path all along the line, on health of mind

as well as of body, on education as well as on agriculture, on ethical development and economic exploitation of Nature, on eugenics and Utopias, on industry and industrial organisation. The many ills that flesh is heir to are met no longer with folded hands but by confident therapeutics. Two blades of grass are grown originally where one grew not by prayer to Lord Varuna but by intense scientific treatment of the soil and by irrigation from reservoir. Poverty is to be destroyed not by propaganda but by releasing stores of wealth awaiting the scientific "Open Sesame." Man shall ascend the height of plenty and prosperity if men of good-will take Science as their torch. Mark the word "good-will". Science is no substitute for virtue. The heart is as necessary for a good life as the head. That is why our Apostle of Non-Violence is afraid that Science threatens to cause the destruction of our civilisation. Let the world take warning in time. The surgeon's knife shall not be used to cut the throat of our dear neighbour.

The dawn is potent with prosperity for the peasant and the worker. The Prince counts not before the Principle which guides our Nehru and his colleagues in administering the new Indian Republic. May the National Laboratories already started by Nehru come forth in endless and ever-increasing grandeur! Let health, wealth, and prosperity be no mere motto but constitute a living practicable ideal. Peace shall be added and the Kingdom of God shall really come to earth—JAI HIND!

DEVELOPMENT OF ENGLISH SUMMER SCHOOLS

By DR. C. E. M. JOAD.

I SHALL never forget the impact upon my consciousness of the first Summer School that I attended. I had just taken my final examination—"Greats" we called them—at Oxford University in June, 1914, and followed this up with the entrance examination to the Civil Service. While we were

taking this examination, World War I broke out and a whole civilisation—though we did not know it at the time—came to an end. When the examination was over, several weeks elapsed before the results were known. Being at a loose end, I decided to go to my first Summer School.

It was being run by the Fabian Society at Barrow House, near Keswick in England's Lake District. I should explain that the period was that of the first gay, spring-time of Fabian Socialism which had captured the imagination of many politically conscious young men at the Universities. In those far off days we were full of hope and confidence and believed ourselves to be in the vanguard of a procession that was marching to a Utopia of State-ownership and control, bringing peace, employment, plenty, freedom and leisure for all.

AFTER-DINNER DISCUSSIONS

The standard-bearers of the procession were Bernard Shaw, the economist Webb and—a little out of step—H. G. Wells; and the Utopia to which they were leading us lay just round the corner. Now, Shaw and Wells were prominent Fabians and there was just a chance that one might meet them at the Summer School.

I arrived about 10 o'clock at night and walked straight into a gathering of tea-drinkers. A number of young women in shorts and plimsolls, with bare legs, chiefly took my eye. Also they were smoking cigarettes and that was more than a novelty; it was a sensation!

The next morning there was a lecture on Bergson's philosophy by A.D. Lindsay, then a tutor at Balliol College, Oxford University, now Lord Lindsay of Birker, Master of Balliol. In the afternoon the main body of Summer School members, some 40 or 50 in number, went up one of the mountains of the Lake District, Great Gable. I stayed behind and played tennis with one of the girls in plimsolls and shorts. After tea there was folk dancing to the sound of a pipe on the lawn, then dinner followed by discussion on "The Future of the Family."

Every day there were morning lectures. Among the speakers would be Members of Parliament, town or county councillors and trade union secretaries. Sometimes there would be an eminent writer, though never, alas, Shaw or Wells or the Webbs, so that my hero worship was disappointed. After

the lecture there would be questions and then discussion, in which half-a-dozen people or more would take part.

GAMES AND EXPEDITIONS

The afternoon would be devoted to games and expeditions. For example, I went up my first mountain, swam in Lake Borrowdale—where incidentally I like to think that I saved from drowning the girl in shorts with whom I had already fallen in love and whom I subsequently married—and played in a cricket match. After tea there would be voluntary activities—everybody by the way was expected to go to the morning lectures—in which different sections of the Summer School would take part, such as folk dancing, physical exercises—"jerks," we used to call them—on the lawn, or play readings.

In the evening after dinner there would be another lecture or discussion, generally couched in a less serious vein than that in the morning. Or arrangements would be made for the morning discussion to be continued, or there would be a debate. After this discussion was over there would be more tea drinking amid a great clatter of voices, followed by dancing to a gramophone until bed at 11.30 or midnight.

One day in the week was devoted to a whole day's expedition. A party went afield in motor coaches or by train, climbed mountains, went across moors or bathed in the sea. On Friday evening there would be an entertainment, usually in the form of a revue written, rehearsed, produced and acted by members of the School. Those who were unfortunate enough to be chosen or were self-dedicated to this task could be seen getting together in corners, making up lyrics, planning skits, devising incidents—most of the well-known personalities in the School were regularly satirised—considering ways and means of properties and lighting. As the week progressed they became wholly immersed in the activities of their secret life which were at last vouchsafed to the School with all the glory of a sudden revelation on Friday nights.

SELF-CONTAINED COMMUNITY

I am dwelling upon these private activities, in order that it may be realised to what an extent, as time proceeded, the School became a small, self-contained community, a world of its own, cut off to a large extent from the great world outside. The week of which I am speaking was one of the most critical in the history of the world—the Russian steam-roller had broken down, the first battle of the Marne was being fought. Yet, we, at Barrow House, took little account of these things; I doubt whether we were aware of them.

This detachment is a characteristic of all the Summer Schools I have known. Whatever their subject or their purpose, as the weeks proceed, they grow into tight little communities, talking exclusively about their own business, running their own love affairs, acting their own plays, even producing on occasion their own weekly news sheet; and with, of course, the inevitable *cliques* and *coteries*, partisanship and loyalties and the no less inevitable antipathies and oppositions which develop in the atmosphere of a self-contained community.

I say "whatever their subject or purposes", for as the Summer School movement developed—and it did so very rapidly after World War I—these became very various. There were Summer Schools for study and research.

PROGRESSIVE LEAGUE INSTITUTIONS

Another type of Summer School was that organised by a body called the Progressive League. I mention this kind of Summer School because they were typical of many schools organised by the small voluntary societies in which England is so rich. These societies are formed to advocate certain ideas; they may be ideas connected with international affairs—for example, Federal Union; or with sexual matters, as for example, easier divorce or sex education; or for the preservation of the countryside or the reform of the educational system.

The members hold weekly or monthly meetings and attend lectures, followed often

by social gatherings at which there is tea drinking and dancing. But in a great city like London these occasions offer few opportunities for "getting to know" one another. Hence the need for the Summer School, where continuous contact for a week or more between persons coming from many different parts of Britain and drawn from different walks of life is felt by all to be a valuable experience.

The Progressive League stood for internationalism, social reform and, indeed, most of the principles referred to above; and its initial purpose was to co-ordinate the activities of the many single societies that stood for any one or for any group of these principles. Its pretensions, in fact, were enormous. Hence, its members met at its Summer School with a high consciousness of mission, listened to lectures and discussions on almost every topic of public concern under the sun and evinced a remarkable vitality and gaiety of spirit.

EDUCATIONAL CLASSES

Many "advanced" persons are great believers in the virtues of sun-bathing. A Summer School, which is usually held in a large house or school in the country, offers facilities for communal sun-bathing of which members take eager advantage. A somewhat different type of Summer School is run by educational organisations. England contains a large number of voluntary bodies for adult education, most of which co-operate with local authorities or with universities and some of which receive Government grants. Of these the best-known is the Workers' Educational Association, numbering some 80,000 students in its various classes. Another is the National Council of Labour Colleges. These bodies run educational classes throughout the year of many different types. Subjects range from philosophy to book-keeping and from trade union history to the appreciation of music.

Their classes are usually held on one evening a week and last for a couple of hours, the first of which is devoted to a lecture by the tutor, the second to discus-

sion by the students. Fees are low and students belonging to every social class, with a large proportion of clerks and school teachers, attend.

The proceedings at educational Summer Schools are rather more formal than at those hitherto described and students may have to pass a qualifying test before they are admitted. On arrival they are divided into groups of four or five students to whom a tutor is allocated. Each member of the group prepares a paper which he reads aloud to the others and follows a specific course of study under the tutor's direction. The social arrangements are not dissimilar from those obtaining at the other Schools.

COMMON FEATURES

Common to all these Schools are the following: First, they are composed of people of like-minded ideas and ideals meeting for the discussion and furtherance

of those ideas and ideals; or, in the case of educational Schools, of people with a like-minded determination to repair the defects in their early education. Secondly, they are held in the country, usually at a country house or institution or sometimes in an Oxford or Cambridge College during vacation. Thirdly, partly for this reason, they achieve a sense of community and, in the case of Schools lasting for a week or more, tend to become increasingly cut off from the world outside. Fourthly, the sense of community is enhanced by the vigorous social life which develops at the Schools.

The English Summer School remains an institution which combines in a highly satisfactory manner the advantages of collective study and of a congenial holiday; filling the emptiness of the holiday proper with a solid core of intellectual effort and relieving the atmosphere of the School with the gaiety of the party.

EXAMINATIONS—A NEW VIEW

By DR. D. JIVANAYAKAM, *Principal, Training College and Dean of Education, Travancore University.*

EXAMINATIONS are of four kinds. First there is the Entrance examination. This is the earliest form of examination known to English educational history. When pious and philanthropic people founded schools and colleges and endowed them, scholars were selected for admission partly on the basis of an examination. Nevertheless, these institutions proved the homes of privilege, position and wealth. When the French revolutionaries realised the equalising influence of education, they took steps to spread higher education among the people. To educate all would involve a prohibitive cost. So they confined themselves to selecting only those who were most fitted for higher education. This they did by an entrance examination on a nationwide scale. French ideas percolated into England through the writings of Adam

Smith and Jeremy Bentham, and the French example was followed in England as well. The accommodation in English Secondary schools is strictly limited. Not all who pass the Primary stage could enter the Secondary schools. Therefore half a million pupils all over England at the age of 11 + take an examination in English and arithmetic, called the Entrance examination or the Special Place examination. Those who pass high get scholarships and maintenance allowances if they are comparatively poor; the next group gets free places; the next has to pay fees and the last will get admission only after passing a further test. Only five per cent get into the secondary schools, about 15 per cent go to a central or technical school and 80 per cent remain in the Senior Elementary school. Scholarships in the modern universities of England and

the ancient universities of Oxford and Cambridge are also awarded on the basis of examinations. Till recently 100 men and 100 women were awarded scholarships to universities on the basis of their rank in the High School Certificate Examination. There is also a special examination for those who aspire to be scholars and exhibitioners in Oxford and Cambridge. These examinations test the capacity for further education. These are external public examinations.

Secondly there are the class examinations. They are internal school examinations. They are an essential part of school work. The teacher must satisfy himself that what he has taught has been acquired by the pupil. The teacher will be able to discover what is not clear to the pupils and what has been misunderstood. He will take steps to remedy the defects. He could find out which pupil is progressing satisfactorily, who is idling and who requires help. The pupils will understand which portion of the subject is important and which not. He will have some idea of the relation of the individual class lesson to the whole work of the class. It will be of guidance value to his future work and convince him where he is defective and show him how to improve his work. The results of such examinations are an indication of the efficiency of a teacher and so facilitate supervision. When the results are compared with those of other schools, they evaluate the tone of a school and so help inspection and standardisation. In school administration they determine promotions.

Thirdly there are leaving examinations. These may be school leaving or university degree examinations. The object of these examinations is to certify that persons are fit to take their place in the world. Leaving examinations mark the exit from the educational world to the great world beyond. Hence they should fit one to one's place in the world. But the world is changing very rapidly. The growth of industry, commerce, the coming of the machine age, the facility of transport, the applications of science to life, have completely transformed life in the modern world. But the school leav-

ing examination still clings to the mediaeval conception of turning out a clericus or clerk, one who could read and write. These occupations were considered to spell a social superiority and in medieval documents, we come across the complaint that many were deserting their occupations for a literary education which would unfit them for the day's work. Hence the school leaving examinations should fit people for specific trades whose number has multiplied rapidly. A wide variety of tests which would meet the requirements of the different occupations have grown up. The institute of mechanical engineers, of electrical engineers, of chemistry, of naval architects, of builders, of gas engineers, of textiles, the City and Guilds institute and the Chambers of Commerce issue certificates most of which are endorsed by the Board of Education in England. These certificates are awarded on the basis of examinations, whose results are moderated by assessors who take into account the staff and syllabi, the equipment and the attendance of the schools from which the pupils came.

The university degree examination is believed to be a test of general competence. It is held that one who has had a university education will adjust himself to the changing needs of the time. This is a fallacy which has been disproved by scientific experimentation. It is found that no capacity gained in one department of human life transfers itself as such to other activities. Hence the belief that a classical education would fit a man to any situation in life rests on unverified assumptions. Specific preparation is required for success in the various situations of life. The old order rested upon class supremacy. One who had a university education and so was possessed of certain esoteric knowledge was considered to be a superior whose will has to be obeyed by others. The spread of education and the better distribution of wealth has promoted the equality of man with man. The relation of governor and governed has changed with the upsurge of democracy. In the older form of government skill in writing state papers and drawing up minutes were of great importance. At the present

time the arts of persuasion have taken the place of bureaucratic orders and personal contact has superseded impersonal rule. An industrial dispute is not put down by departmental orders but settled by negotiation. Success in commerce and industry depends upon knowledge not merely of production but of distribution and consumption trends. The need for specific training in these lines has become apparent and the examination by itself does not foreshadow success.

Lastly there are competitive examinations, top rankers in which are awarded some of the biggest prizes in life. Competitive examinations were an improvement upon nominations which they superseded. They are the result of French democracy and Condorcet describes in detail how they should be conducted. Jeremy Bentham has similar directions to secure the best men to serve the government on the most economical terms. But it was the failure of the officials nominated to the War office on the basis of birth and position in the Crimean war that led to the competitive principle in the appointments to the Home and Indian Civil Services. As such examinations can test only book knowledge, it was suggested that the shortcomings of the written examination may be made good by a viva voce test which would give weight to personal qualities. But it is now held that a viva voce is not more reliable than the written examination. A prize of £100 was offered to university graduates of a certain age who should be judged best in an oral examination by two boards of examiners. There were 30 competitors. Their academic records were before the examiners who interviewed each for not less than 15 and not more than 30 minutes. The candidates were arranged in rank order by each board after discussion. The order of each board was different and there was no case of complete agreement. There was a difference in certain cases of 90 marks in a total of 300. The candidate placed first by Board I was placed 13th by Board II and the first of Board II was the eleventh of Board I. The prize went to the one who was placed second by Board I and fourth by Board II.

The advance in psychological science and the perfection of statistical techniques have introduced great changes in examinations. The experiments of Weber, Fechner and Wundt on the acuity of sensations by the methods of physics, led Galton to study individual variations. Abelson carried out these experiments into physical capacities such as speed and strength of movement. Two of MacDougall's students made a combination of these and found that individual variations disclosed by them correlated well with the judgments of people of a person's intelligence. Karl Pearson and Spearman discovered a formula by which such correlations could be easily computed. Binet used these discoveries and added certain tests for the higher and abstract qualities of the mind such as judgment, reasoning, memory, imagination etc., to devise his now famous intelligence scale by which he separated the feeble-minded children from the normal. Terman, carrying the researches of Binet further, invented the mental age and its relation to the chronological age and arrived at the intelligence quotient which is a numerical measure of a person's intelligence. Since Binet's tests were applied orally and individually, they took a long time. So paper and pencil group tests were devised by which a large number could be tested at one and the same time. These tests were applied to 2,000,000 recruits of the American army in the first world-war and the capable were sifted from the incapable and those who deserved commissions were selected. After the war, tests were applied to industry, first to select among those who applied for a job, next to fit the job to an individual. These tests were gradually used to discover aptitudes and for vocational guidance. Clerical posts, Civil Service posts and posts in the army, navy and air force were filled by applying appropriate tests. The gifted and the super-normal were differentiated from the average and the delinquents and the problem children were screened. The personal and character qualities which were not tested by the old type examination were provided for by the elaboration of personality ratings and measurements for character traits. Thus

tests are being used to measure mental and personal capacities of different sorts.

In the face of such developments the reliability of the old type of examination has been widely questioned. The problem has been studied by numerous investigators in Europe and America. We shall confine ourselves to the investigations carried out by Prof. Valentine of Birmingham University. He studied the reliability of the special place examination or the Entrance examination to Secondary schools. The result of this examination decides individual careers and the expenditure of a great deal of public money. Valentine studied the reliability of this examination by comparing the performance of pupils at entrance and at the school certificate examination four or five years later. He found that many who were at the top in the entrance examination touched bottom at the final examination and vice-versa. This meant that the large majority of pupils who were rejected for lack of one per cent of the marks may have made good. Many reasons were brought forward for this unreliability. Luck or chance, special coaching, the difference in the efficiency of teaching between school and school, the awakening of latent powers, the need for specific abilities in the larger number of subjects included in the certificate examination and the budding forth of character traits, were held to be responsible for the differences in pupils' performance. By careful manipulation of the data, Valentine rotates out these unlooked for influences and shows that the main cause is the unreliability of the examination. On the other hand the results of the certificate examination correlate well with class marks and intelligence ratings. Some of the causes alleged do not function in the case of scholarship awards in the universities, and so he studied the prognostic value of such awards. He discovered that in the case of the scholars selected from the top rankers in the Higher School Certificate examination one-third of the non-scholars beat one-third of the scholars in scoring first or second class Honours, that one-third of the scholars got only a pass degree or failed and that 5 per cent actually failed showing

thereby that the awards had been misplaced. The awards to Oxford or Cambridge on the special scholarship examination, proved equally unreliable compared to those awarded by the University itself on the basis of a year's work or so, which correlated well with the final results. The conclusion is plain therefore that these examinations have signally failed to foreshadow pupil performance in the school and university examinations.

The verdict of the old type of examination on human abilities has been widely questioned and has given rise to new type questions. The old examinations gave five or six questions which the candidate had to answer in two or three hours. In the new type, instead of a small number of long questions, there is a large number of short questions. There may be as many as two hundred questions to be answered in the space of half an hour. There are 35 kinds of tests but generally only five are used. They are the multiple choice, true-false, one word recall or completion exercise, best answer and matching. The course of studies is broken up into these questions. The results are standardised by giving them to large numbers of pupils beforehand and age norms and grade norms are ascertained which give meaning to the scores. In the old type, if questions are on parts of subjects which the candidate had not prepared well or during the teaching of which he was absent, the results were disastrous to him. The new type samples widely, choosing items from all parts and so minimises the effects of chance and penalises but little in the parts that is not well known to the examinee. In the old type examination the questions were casually selected, often from portions which are favourites with the examiner or which he has taught just then. The new type tests are carefully standardised, omitting non-discriminating elements and suitably graded. The old type examination suffered from the bias of those who valued the answers. Once the teacher forms his opinion of a pupil, it colours the marking of all his subsequent work. The valuation thus loses detachment and objectivity. Once a Professor in London Univer-

sity had two students, one Smith an Englishman and another Jones a Welshman. In marking their essays he always gave the Englishman "good" and the Welshman "fair". The students decided to play a prank on their professor. They interchanged their papers. Jones sent his paper under the name of Smith and the latter sent his paper in the name of Jones! As usual the Professor awarded "Good" to the paper of Jones under the name of Smith and "Fair" to the paper of Smith masquerading under the name of Jones. Once on a Board of Examiners there was a conscientious examiner who wrote out answers to all the questions as a guide to his valuation. This paper got mixed up with the students' answer books and was sent up to the other examiners to be valued. Mistaking it for a candidate's paper, it was awarded marks ranging all the way from 40 to 80 in a total of 100. Thus the Professor failed in his own examination.

Examiners differ in their standards of severity or leniency and often the chances of a candidate in an examination depend upon who will be his examiner. Again examiners differ in the importance which they attach to various factors of a good answer, such as clearness of exposition, accuracy of factual statements, pertinence of argument, extent of knowledge and logical development. Naturally examiners differ in their capacity to make a sound judgment about an answer. The same answer paper valued by different examiners,

has been awarded widely varying marks, ranging from 28 to 92 and 43 to 90 out of 100. Indeed even the same examiner asked to revalue a paper which he had valued sometime before, has given very different marks. The new type tests are free from these subjective errors and so are called objective tests. The valuation is purely mechanical and is done by clerks, not teachers. The answers require either a check mark, a number, a circle, yes or no, true or false, marked on the paper itself. The usual procedure is to find the intelligence quotient of each pupil and then give him objective tests in the various subjects. It can be found out easily whether he is working to capacity and has a score in each subject normal to his age and class. Teaching is therefore given a direction and does not proceed in the dark.

Examinations are of such capital importance in the world of to-day that the Carnegie Foundation for the advancement of learning sponsored an enquiry into its problems by a Committee of Psychologists and Educationists of international renown such as Sadler, Nunn, Burt, Hartog, Graham Wallas, Godfrey Thompson and Valentine of Great Britain; Paul Monroe, Judd and Thorndike of America; Piaget, Bovet and Claparede of Switzerland, Carl Becker of Germany and Desclos of France. Their findings are published in several volumes and are available for the reform of examinations anywhere in the world.

* LIBRARY SCIENCE AND FUNDAMENTAL VALUES—(PURUSHARTHAS)

By SRI S. R. RANGANATHAN, M.A., L.T., F.L.A., *President, Indian Library Association.*

I WELCOME you to this degree course in Library Science. I admire your daring in offering yourself to Library Science. I call it daring because this is a very recently established discipline. My next desire is to tell you that you have not altogether taken

a false step. Library Science has been recent, I said. By that I mean that the values that one can get by caring for it are taking shape only recently. Let me deal with each one of its possible values and show when that value began to appear.

1. PERSONAL PROFIT.

Surely, the pursuit of any subject must be for *Swalabha* (personal profit). In our civilization, the common unit by which all personal profits are measured is money. Let me, therefore, show you the history of the personal profit of the pursuit of Library Science expressed in terms of money. In the beginning, a librarian's work had hardly any money-value. In the history of the library of the Christ Church College, Oxford, for example, you will find that the librarian had hardly any salary worth mentioning. It was often a student who was in charge of the library. This was the case with the librarians of many academic institutions. A student took charge of a library either because he was so poor that even the pittance of an allowance which he could get was of considerable value to him, or it may be because he was overflowing with energy and he wanted some extra work to let off steam, so to speak. The father of the modern library profession, Melvil Dewey, himself was a student-librarian probably for both of the above reasons. Even recently, I read with some amusement an application for a library post in which was emphasised as one of the qualifications the fact of having been student-librarian. In other libraries, the librarian's work was not taken to deserve even the trivial sum to be given to such student-librarians; and so somebody had to do it in an honorary capacity—which means for no *Swalabha* or personal profit at all. If it is a College library, a busy professor is made honorary librarian. If it is a municipal library, the overworked municipal commissioner has the library as his additional charge. It is well-known that in our country such things are common even to-day. Superintendents of museums become *ex-officio* principal librarians of public libraries. In spite of the persistence of this order of things in our country, the practice of having properly paid librarians began in Western countries two or three generations ago. In our country, too, the need to pay librarians, *qua* librarians, is being slowly realised, though the standard of payment is still miserably poor. But I do hope in the new age, which we have begun recently, all

this anachronism will end and that when you enter the profession you will find that Library Science too, can secure *Swalabha* in the shape of money like any other profession.

2. SOCIAL WELL-BEING.

Apart from personal profit, Library Science can also contribute to *Samuha-sukha* (social well-being). Historically the need for remunerating librarians, as it was in the case of the members of other professions, was brought home to the members of society only after it was realised that libraries, backed by a well developed library science, can add to the well-being of society itself. The realisation came early in the 19th century. There is a very interesting anecdote about it. To know that anecdote you must go with me mentally to the Glasgow of the early 19th century. In those far off days, Glasgow had no University. It had only a college. This college took on its staff a young graduate in science, Birckbeck by name. In those days even science was learnt by rote-memory. You young people who have had your laboratory work, will wonder how it could have been possible. I know that Delhi and other places even make you take an examination in practical science. But in the days of Birckbeck there was no practical work for students. There was not even experimental demonstration by the teacher. Young Birckbeck revolted against it. He wanted to have at least a few demonstration experiments. To do that he had to design by himself every kind of apparatus from the simplest onwards. But the artisans could not make them properly. After investigation, he found that it was due to their not having any knowledge whatever of the elements of the science on which their own craft was based. They could only repeat wasp-like what they had inherited. So he wanted to teach them the rudiments of science. I need not reproduce all the details of the anecdote. It was enough to say that the society of Glasgow artisans soon perceived the superior advantage of such a knowledge and large numbers of them began to crowd Birckbeck's classes. News of the consequent social betterment of the world of

artisans of Glasgow reached London. There, another young man, Lord Brougham, had been thinking along similar lines. The two joined hands and established the famous Society for the Diffusion of Useful Knowledge. A large number of popular books came out. They were organised as libraries and the service of those libraries was eagerly availed of by workmen. This new movement was copied in most of the towns. The *Samuha-sukha*, the social betterment, which flowed from this movement soon became so arresting that a Library Act was passed and a paid library profession was established. In our own country, we are on the eve of such a development. The changes that have come over our society during the last few days will, without doubt, call for every agency that can add to *Samuha-sukha* or social betterment. It may be that our leaders are now too pre-occupied with the things of the moment and are unable to turn their attention to factors which alone can ensure progressive, permanent *Samuha-sukha* or social betterment. They are so overwhelmed, I am prepared to grant, with acute problems which demand an immediate, though temporary, palliative. But this will not endure, they will soon realise it. I wish they do realise it before a damaging crash sets in. Take the food problem, for example. Importing food grains cannot be a permanent solution. New and scientific pursuit of agriculture alone can give a permanent solution. Preparation of our farmers for intensive farming will not be possible unless they are fed continuously with the latest information on the subject. They cannot be so fed unless we have libraries of the right kind. Libraries will not be of the right kind unless they are run by persons who have specialised in library science. Or take our clothing. The shortage of yarn and cloth cannot be permanently removed and society cannot be better clothed merely by bringing them on board the ship, from the West or the East. Our society must produce better spinners and weavers. To produce them continuous and intensive training in the latest methods will be necessary. The methods will have to be improved continuously. This again will

require libraries of the right sort manned by library experts of the right sort. If you look at the history of any nation which has secured *Samuha-sukha* or social betterment, you will find that one of the links in the chain of the agencies employed for the purpose is the library. The United States, for example, publishes a kind of irregular year-book which lists more than two thousand industrial concerns. Most of these concerns describe the industrial research being promoted by them and they also mention the business libraries maintained by them to promote that research. I say that Independent India cannot long delay realising the urgency for establishing libraries of the right sort, manned by daring souls like you who have had arduous, full-fledged, training for at least two years in library science. It cannot make any progress without a public library system. When she realises—and it will soon do so—that its *Samuha-sukha* or social betterment could not be achieved without libraries and the service of Library Science, then will her leaders and people realise the far-sighted step which the Delhi University has taken and the wisdom of Sir Maurice Gwyer, its Vice-Chancellor with vision, in advising this University to institute a degree course in Library Science. If the Government is taking a correct view of the methods of improving our society, it should have demanded a degree course in Library Science from the Delhi University. All honour to Sir Maurice Gwyer and Delhi University for having instituted the degree course in anticipation and without a gesture of any help or encouragement from Government. Surely the Government should have seen that Library Science is at least as essential, if not more, for the all-round stepping-up of our national life as Russian or French which can have no significance for the masses.

3. CREATIVE JOY.

I next pass on to the third purpose which the pursuit of Library Science can serve and that is serving as a means for the fulfilment of the *Swa-dharma* or the reaching of the intellectual destiny of a person by creat-

ive work of some sort. Money, and what can be bought with it can only bring happiness—happiness which is short-lived and fleeting, which dies with the materials which bring the happiness. It is only creative work that can bring more lasting joy. This fulfilment of one's intellectual personality by creative work is the *Swadharma* or the individual distinctive duty to oneself. I claim that Library Science will give you as much opportunity as any other subject for your *Swadharma*. I am sure you will realise it before you complete your two years' course. I do not say that creative ability will manifest itself in the case of every student. It does not happen in any subject. The probability of it is always small for any subject. If you were a very large class I could have been quite sure of some of you realising also this third purpose of the pursuit of Library Science. But as you are a very small number now, the probability is also very small, but the possibility is still there.

4. FULFILMENT OF A NATION'S MISSION.

There is a fourth purpose similar to the third. It is *Samuha-swadharma* or the fulfilment of a social group or nation by making its distinctive contribution to world's knowledge and welfare. This has of course to be the cumulative result of the *Swadharma* of its individual citizens for several generations. But there is a particular field in which each nation can be at its best, make its distinctive contribution and thereby fulfil itself. To give an example, let us take the breaking of the atom. It had been known for some years that the atom was breakable and that the energy which could be released by it would be enormous. By breaking one atom, for example, it might be possible to keep Delhi electrified for several years. An act like that would be of immense social value. One need not dehumanise humans by sending them down the pit to rip open the earth and bring out dirty coal or nauseating petroleum. It is true that, due to the ethical and spiritual immaturity of the nation which succeeded in breaking the atom, the energy so released for the first time was used for human slaughter on a mass scale. But that will soon

be set right. Though the possibility of breaking the atom had been mathematically established more than a generation ago, the engineering feats required to release it in practice had been formidable. It was left to the United States to achieve this feat and thereby make the world for ever a debtor to it. In this the American nation has fulfilled its *Samuha-swadharma* in a field germane to it. The English nation has achieved its *Samuha-swadharma* in the political constitution which it is evolving and which shows the way to all other nations. India, too, has fulfilled its *Samuha-swadharma* in some fields in the past. For example, in the field of mathematics she had contributed the numerals which have come into universal use, and the notion of zero and negative numbers. Panini's system of grammar is still the best model going. India's distinctive contribution to metaphysics and her record in mystical experience are so well-known. In our own days, Mahatma Gandhi has enabled her to attain a similar fulfilment in the forging of a new political technique. Nearly contemporary with the attainment of *Samuha-swadharma* in this field was a similar attainment by England and Germany through the personalities of Darwin and Einstein respectively. Evolution and Relativity have now got ingrained in the mental make-up of most thinking men of to-day. In a similar way, in the latter half of the 19th century, through Melvil Dewey, the Father of Modern Librarianship, and his devoted band of associates, the United States had moved towards the attainment of its *Samuha-Swadharma* in another field, the field of Library Science. The time has come for humanity to take another leap forward in this very field. Who can say that the School of Library Science of which you are pioneer members to-day will not eventually turn out to be the agent through which India can take that leap forward and thereby enrich the fulfilment of India's *Samuha-Swadharma*? To this end, I fondly hope, that this University will allow this Department to enroll and train students in research and prepare them for Doctorates in Library Science. Library Science comes into the picture of *Samuha-Swadharma* in

another way. Whether a nation is destined to attain its *Samuha-Swadharma* by lifting Library Science to a higher potential or not, whatever be the field of knowledge towards which its *Samuha-Swadharma* gets gravitated, its fulfilment will have to depend on a long chain of events, personalities and institutions, one inevitable link of which should be its library system. Therefore, Library Science will in any case contribute indirectly at least to the attainment of the *Samuha-Swadharma* of every nation.

5. DELIGHT OF RELEASE

I come now to the fifth and the last purpose for which Library Science can be pursued. That purpose is unlike gaining the fleeting happiness or *Sukha*, or the somewhat more lasting and yet perishable joy or *Pramoda*. It is, on the other hand, the attainment of Delight or *Ananda* which never perishes and which is eternal. Eternal delight is the right of every soul. Its occultation at the moment is caused by non-eternal elements. Attaining delight, therefore, means rising beyond or piercing through such obstructions. Usually a technique for effecting this, is absorption or *Laya* (at-one-ment) with some subject of contemplation. Library Science, I am quite sure, is second to none else in the world in being a fit subject for the *Laya* that can release the soul from bondage into delight and that can land us in *Atmavimochana* or *Moksha*.

6. INDIAN TRADITION

Those of you, who are familiar with Indian tradition, would have seen that the train of my thought to-day had gone along a well-known path, the path of *Purusharthas* (the fundamental values of life)—*Dharma*, *Artha*, *Kama*, *Moksha*. The first purpose, I have described, belongs to the category of *Artha* (wealth). I have shown you that India has already begun to invest Library Science with this value. I am sure, none of you will miss getting this value if only you sincerely dedicate yourself to the subject. The *Samuha-Sukha* or the social betterment belongs to the category of *Kama* or happiness in the vital plane. I have shown you how urgent is the service of Library

Science to our motherland in this respect. My appeal to you is that you should not stop with the first value, but you should all work for the second value also. The third and the fourth purposes belong to the category of *Dharma* or creative work and the concomitant Joy. Nobody can foretell which of you will be able to realise this value. I only wish that some of you may do so. The fifth purpose of the pursuit of Library Science relates to the category of *Moksha* (Release) and its concomitant Delight. You may wonder whether *Moksha* can be attained through the pursuit of Library Science. I don't. I am a profound optimist. I am convinced, and I do believe that undivided devotion to Library Science can lead to *Moksha*, that is, land one in Everlasting Delight.

7. LIBRARY SCIENCE SUBTENDS ALL PURPOSES EQUALLY AND SIMULTANEOUSLY

I see young faces beginning to look suspicious. I hear somebody whispering, "Have I come to the Degree Course in Library Science to become a recluse, a fakir or a sanyasi?" I can very well understand the danger of this first talk of mine scaring you away, because *Moksha* is mentioned. Don't make that mistake. These five purposes are not mutually exclusive. They all co-exist, whether you care to recognise them or not. Turning your eyes on one of them does not mean turning them away from any other. You can have all of them in the forefront of your ambition with equal intensity at one and the same time and all through life. If you are not afraid of a geometrical representation and a geometrical term, I shall give you geometrical diagram which will bring home to you the truth of this statement. In your childhood you should have learnt the geometry of the circle. You should have heard of an arc of it and the angle at the centre which subtends it. Now an angle at a point can subtend simultaneously arcs on different concentric circles with equal completeness, if they all have a common centre. Library Science is the angle. It can subtend and it does subtend all the five purposes. The fact that it subtends

the fifth purpose does not interfere with its subtending the first purpose and *vice-versa*. This diagram is a schematic representation of the fact that you can, by the sincere, continued and intelligent pursuit of Library Science, achieve simultaneously worldly goods, credit for social reconstruction, creative joy, credit for having contributed to something creative done by our nation as a whole and the realisation of Natural Delight.

Do you think that I have sung the praise of Library Science in too high a pitch? Perhaps you do. At any rate, I don't blame you for this at this stage. I don't want you to be credulous. You can begin at least with the faith in the first and the second value and suspend your judgment about the other three values till a later date, till you complete your degree course. I said, I do not blame you, because I have known from experience how even older people, even people with more learning are ignorant of these values. When I myself turned my loyalty to Library Science, a quarter of a century ago, two old gentlemen—learned gentlemen pitied my lot. One was the Principal of the College in which I was teaching and the other was the Principal of the College where I had studied. Both were sincere well-wishers of mine. It was their sincerity which made them condole with me for having been relegated to worship at the altar of Library Science. That was because in those far off days no body in India had known the potency of Library Science in the field of all the four *Purusharthas* (fundamental values of life). Let me make a confession, I too was equally ignorant, I was credulous as some of you are to-day. This fact should, I think, add great weight to my testimony.

9. A SUBJECT OF UNKNOWN CONTENT

There is, however, one warning I should give. You may find your friends and relatives shrugging their shoulders and glancing at you with a cynical eye when they come to know that you have taken to Library Science. This was a very common experience to my students when I began teaching Library Science twenty years ago.

Their cynicism reached up to me also. They used to attribute selfish motives to my attempting to establish a Library School. They used to say that I wanted to hide my discomfiture by enticing young men to lose their tails too! Many parents used to dissuade their children from joining my School of Library Science. If a lad did not pay heed to such advice and insisted on joining the school, and if his father was a cruel man, he would virtually disown him and cut off supplies; if he were a fond father, he would at least say, "I don't want to look at your face till you get weaned from that company." This is no wonder, because even University dons, professors in charge of long established subjects, resist the inclusion of Library Science in the curriculum of the university. Many sneer at the very idea and some would even prefer a ton of books locked up in cupboards to a teacher of Library Science being added to their group. Indeed, they would weigh a teacher of Library Science against a heap of Library books in assessing the value of Library Science. All this can only be due to ignorance of the content of Library Science and particularly of its cultural value as a discipline. But I find that in Delhi at any rate things have improved very much. I am moved to say that because I have seen brothers, fathers and husbands of young boys and girls coming to Das Gupta in person and asking for a seat in the degree class in Library Science. I don't know how much of this solicitude for Library Science is traceable either to this University having boldly admitted Library Science into its own high-brow society or to the advertisement inserted in the newspapers.

Whatever may be the cause for the change of attitude in elders, it is but proper that I should give you true and factual reasons why Library Science is worth pursuing. I should give you at the outset a general picture, an aerial view so to speak of the field of Library Science. I have given you to-day such a view perhaps from too great a height, from the stratosphere so to speak. I propose to give you in the second lecture a nearer aerial view where details will be visible. I would

ask you to peruse to-night this syllabus which is being distributed just now. This syllabus will give you an atomised view of the field. A syllabus is virtually a legal document and for purposes of the regulations it has cut the field of Library Science into several sections. But in the next

lecture, I shall show you the syllabus as an integral whole and indicate how the various details which stand apparently detached in cold type, do evolve holistically from one central idea which is the soul of Library Science.

TINKERING AGAIN.

BY SRI R. SRINIVASA IYENGAR, *Headmaster, Sarva Jana High School, Peelamedu.*

AT the July meeting of the Board of Secondary Education, the Hon. Minister for Education stated that it had been decided to impart basic education between the ages of 7 and 12, and appealed to the Board to give him a complete picture of the reforms in secondary education. Gandhiji's view is that "if we wish to ameliorate rural conditions, we must combine secondary with primary education." Primary education, according to Mahatmaji, is the present Matriculation *minus* English. Mr. Varkey's elucidation is that, "barring the knowledge of English, a boy who emerges from a complete Wardha school will have a standard of knowledge and formation which is decidedly higher than that of a modern Matriculate." The Constituent Assembly has urged the introduction of eight years' elementary education within ten years from now. It is therefore clear that the introduction of basic education in our province will have to undergo drastic changes. Such being the case, I wonder how it is possible to draft schemes of reorganisation of secondary education without knowing the base on which the superstructure has to be built up, and how the primary and the secondary education should be linked up. This aspect does not seem to have struck the two Boards which recently discussed the matter. It is gratifying that the Board of Advisory Education set up sub-committees and reminded itself of the questionnaire which provoked about a 1000 people to answer them. Owing to the shifting nature of ideas regarding basic education, the changes now contem-

plated in secondary education cannot be final.

The principle of diversification of courses in secondary schools has met with wide approval; but it still remains in the experimental stage even in England. As an English educational journal remarks in a recent issue, "no real attempt is being made to choose the variety of secondary education for which the individual child is fitted." It is not a question of schools being selected for certain courses, but of alternative courses according to interest and ability, the needs of the child and the society. The contemplated scheme does not satisfy this criterion.

Again, I do not agree that training for a clerk's career at the age of 13 is vocational education, though it may be termed in glorious language, "secretarial". The syllabuses and curricula for this secretarial course cannot be defined until the question of the provincial court language is settled. Soon after the division of the province on the linguistic basis, the regional language will be court language; and the secretarial course cannot be formulated now on the basis of the English medium. The Minister will do well to keep in abeyance the question of introducing the secretarial course now.

A moot point is as to when the bifurcation should begin. Years ago, the trend of opinion was to introduce it at the end of the V Form stage; then it was modified to begin at the end of the IV Form stage. Now, to introduce it at the end of the III Form stage

means that any course, academic or technical, could benefit the child without the foundation of general knowledge, ability in language or mathematics—a highly unsound view of education. Public opinion should assert itself against limiting the period of general secondary education.

In my opinion, bifurcation will not be real and effective, if some process at the stage is not devised to divert the pupils, as an alternative to examination. The citizen-building activities at the latter half of the secondary education stage are not feasible without the abolition of examinations, which only those who wish to proceed to the University should be obliged to sit for.

Mr. R. A. Butler sometimes ago said, "There would be a crisis in education in the near future unless the Ministry grasped essentials and had proper priorities". A well-thought out order of priorities is the essence of sound administration. The Premier's picture of elementary education is devastating. He says that the number of elementary schools and scholars is going down. The country has been looking for-

ward to universal elementary education being given to all our children. Moreover, ideas relating to basic education seem to be hazy. Basic education may be commended because it is educationally sound and is consistent with the principles of 'learning by doing or through interest or by contact with problems of real life.' But the idea that basic education, as stated by the Premier, helps the pupil to pay for his education is an exploded educational doctrine, and has not been accepted even by the Zakir Hussain Committee. The enforcement of basic elementary education cannot be tackled by the education minister alone, but by the decisions of the cabinet, among whom correct ideas should have been arrived at. Again, urgent steps should be taken to prevent the colossal wastage in elementary education referred to by the Premier even in the absence of expansion. The reform of secondary education may wait for a year or two; and the first place in the order of priorities may be given by the Education Ministry to the pressing problems of basic elementary education.

INAGURATE A NEW INDIAN ERA.

By SRI M. V. TIRUMALAI AIYANGAR, B.A., B.C.E., C.E., Consulting Engineer, Bangalore

NOW that the Independence of India has become a settled fact on and from 15-8-47, it is highly desirable that the day should be made an unforgettable one. This may best be done by inaugurating a new Indian era from that momentous date, similar to the Salivahana or Vikramaditya eras, (*sakhabdas*). The era may be called *Swatantriya Sakhabda* or by any other attractive name.

The months in the years of the New Era may be called *Prathama*, *Dwitiya* etc. up to *Dwadasa* (1 to 12). The 365 days of the solar year may be distributed among the twelve months at 30 days for each of seven months (210) and 31 days for each of the remaining 5 months (155) in convenient order.

As luck would have it, the solar month, Simham (Sanskrit) known as *Avani* in Tamil, *Bhadra* in Bengali etc. commenced on the 17th August, only two days after the Independence Day. The *varsha ritu* also commences on the same date. Thus the New Era or *Sakhabdam* if adopted will not be in disharmony with current Indian months and seasons. This New Era will be common to all the inhabitants of the Union of India, and of Pakistan as well, if they also choose to adopt it, and is independent of any caste or creed. There appears to be no object in continuing the Christian Era in India, perhaps even in Asia. Such a continuation will only be a humiliating reminder of our cultural and political slavery in the past.

ASPECTS OF THE MEDIAEVAL CHURCH

By SRI T. K. VENKATARAMAN, M.A., LT. Pachaiappas' College, Madras.

NO student of human history can afford to ignore the enormous services done by the Church to human welfare and culture in the Middle Ages. How it softened the brutality of the feudal age, how it kept the torch of learning bright amidst the troublous shadows of the period, how it provided safe refuge to the poor, the orphan and the distressed—all this is well-known.

While awe forced men to obey even the most wicked monarchs, faith kept men steadfast in obedience to the church. We must never forget that the Middle Ages were not only a period when men loved war but also one of intense religious piety. Though mixed with superstition, it reigned supreme amongst the masses. St. Augustine is said to have restored sight to a blind man to convince the Welsh about the superiority of Roman Christianity. Dunstan, while he was a monk at Glastonbury, was believed to have got hold of the Devil's nose in a pair of blazing tongs, while his victim howled with pain. The elevating influence of religious faith is best seen in the life of Becket. Before Henry II of England made him the archbishop of Canterbury, he kept such pomp and splendour that, according to Lingard (History of England Vol. 2), the French king exclaimed, "What must be the king like who has such a Chancellor?" But when he became archbishop, he changed his life to rigorous asceticism. He wore a hair-shirt, washed the feet of the sick and the poor, and fasted according to strict ritual. The story of his quarrel with Henry II ending in his murder is well-known. He was canonised by the Pope, and his shrine became a popular centre of pilgrimage. It is said that, in a particular year, £ 640 were collected at his altar, while only one penny was found at the altar of Christ. This popularity continued till Henry VIII, during the Reformation, destroyed the sanctuary and dispersed his bones.

Medieval faith (including superstition) was at its height during the Crusades. At the time of the First Crusade, Peter the Hermit went first towards the Holy Land with a disorderly crowd of followers mad with religious frenzy. On the way, Jews were massacred. Hungarians, Bohemians and Bulgarians were robbed and insulted by the rabble, as it passed through, and they retaliated by killing many of them. At last, they joined another band led by Walter the Penniless at Constantinople. The undisciplined crowd occupied its time in plundering and burning houses and stripping lead from roofs till the Byzantine Emperor got rid of them by hastily shipping them off. They crossed the Bosphorus and landed in Asia Minor, by now a miserable and unorganised crowd. The Turks had no difficulty in falling on them and destroying most of them. A few managed to save themselves only by turning Muslims.

NEW YEAR GREETINGS CARD.

Picture—Gandhiji climbing up a mountain with a Cross. Size:—5½" × 3½"

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A. R. P. Press, Kunnankulam.

Some other crusading bands, in their journey to the Holy Land, took a goat or a goose as their guide under the impression that these guides were possessed by the Holy Spirit.

A more organised force reached Palestine. At Antioch, their drooping spirits were revived by what seemed to be a divine sign. A lance which was supposed to have pierced the side of Jesus was dug up. St. Andrew was believed to have informed a priest about the exact site where it would be found. Even in those days, one dared to say that the priest invented the whole thing. The highly displeased priest offered to go through the ordeal of fire to prove its truth. He was taken at his word and had to undergo the ordeal. He died in a few days of the burns he sustained.

The most tragic of these effects of faith was the Children's Crusade. The chief preacher of this was a boy of 12 who believed that he was ordered by Jesus to organise it. But, while most believed that the Crusaders were inspired by God, a few whispered that the Devil was at the bottom. The poor children reached the sea and were astonished that it did not at once open a passage for them. Now, some cunning merchants appeared on the scene, and generously offered to carry them across to their destination in their ships free of charge. The unfortunate children were sold by the scoundrels in the Muslim slave-markets.

We cannot deny that amidst the numerous galaxy of high-minded and pious churchmen there were a few black sheep at times. Sacerdotal celibacy was decreed by Pope Siricius as early as 385 A.D. yet even by the time of Gregory VIII, seven centuries later, three consecutive archbishops of Rouen had wives or concubines. Freeman (*Life of William Rufus*) narrates that Ranulf Flambard, the minister of William II, once gave a banquet to the monks of his see of Durham. In this, he forced them to eat forbidden food served by forbidden women. Flambard kept a mistress and had a family. Of course, at that period, many clergymen had concubi-

nes. (Froude, *Short Studies* Vol. 4 p. 42.) But none reached the peak of wickedness attained by William II's minister.

Cardinal Wolsey of England was so full of pomp that even his master-cook was dressed in damask and wore a gold chain round his neck. Burnet calls Wolsey lewd and vicious. He had an illegitimate daughter whom he made an abbess. It is said that St. Francis of Assisi atoned for his earlier profligacy by energetic religious exercises which included unmerciful scourging. In deed, flagellation played a prominent part in the conquest of lower passions. Peter the Hermit rescued a maid from a soldier who tried to seduce her and, during this, his inclination towards her became so sinful that he locked himself up and endured a severe flagellation. The early Church Fathers record similar experiences. Extremity of self-discipline was witnessed amongst the Trappist monks. They wore hair-clothes and girdles of iron wire and thorns. In winter, they slept in the snow, and, in summer, amongst nettles and thorns. They used scourges made of hard and knotted strings, which cut the skin. After energetic scourging, vinegar and salt were dripped on the wounds.

It is sometimes debated whether such repression could be fruitful. St. Anthony who lived the chastest life confesses that Satan tempted him with obscene pictures. The notorious Bishop Guichord was the paramour of Jeanne de Champagne, Queen of Navarre and wife of King Philip the Handsome of France. The order of Knights Templars was suppressed in the 14th century by Pope Clement, one of the charges being that they indulged in bestial and unnatural vice. Pope Paul V had to issue a bull in 1612 against priests who, in the confessional, solicited women to immoral actions. It is said that when Anne of Austria, the neglected wife of Louis XIII, became the regent for her child, Louis XIV (born after 23 years of a childless marriage), her minister, Cardinal Mazarin, bought a house close to her palace, and a door was made in the garden wall for his surreptitious visits to her. Yet, judging the question

fairly, we should readily admit that, on the whole, the clergy lived up to the exacting ideal demanded of them by the Church, and the baser instincts were as a rule sublimated so as to serve the cause of God and man with unflinching zeal.

Of course, all institutions have their ups and downs. The Papacy had also its dark record. The 10th century was one such period. Such was the strife of clerical factions that Pope Stephen VI had the remains of a preceding Pope exhumed, dressed the body in pontifical garb, placed it on the Papal throne and had it tried. The verdict was, of course, unfavourable, and the corpse was mutilated and thrown into the Tiber. Another Pope, John XII, who began his pontificate as a boy of 19, shocked Rome with his mad pranks and debauchery. The worst period of Papal degeneration was, however, the later Middle Ages. One of the Popes of this time, John XXI, was said to be more interested in mathematics than religion and to have hated monks and friars. When he was killed by the fall of a roof, rumour had it that Satan himself had been seen pulling down the supports of the roof. Peter the Hermit who became Pope Celestine V was easily deceived by all. He gave away every post which anyone asked—some times the same appointment over and over again. There is a story that one of the cardinals terrified him at night through a hole in the wall, inducing him to believe that he was sent by God to urge him to leave the world. Finally, Celestine abdicated and retired to a cave. The cunning cardinal became Pope Boniface VIII. A man of imperious temper and sharp tongue, he was incredibly vain. In 1300, when the Papal Jubilee was held at Rome, he seated himself on the imperial throne wearing a crown, a sceptre and a sword and shouted 'I am Caesar, I am Emperor'.

Urban VI's election was marred by the invasion into the palace of a mob which howled for an Italian Pope, and the cardinals had to flee for their lives. Urban, who was very arrogant, called one cardinal fool and told another that he had talked enough. He cared only to advance the interests of his

family. During his pontificate began the Great Schism, and a rival Pope, Clement VII, held court at Avignon. When it was suggested that both the Popes should be deposed in the interests of church unity, Clement became so violently angry that he died of an apopleptic fit. Boniface IX, successor of Urban VI, was so avaricious that he sold everything—even permission to violate all rules. When celebrating the Mass, he used to discuss finances. Benedict XIII, successor of Clement VII, promised before his election that he was for all sacrifice in the interest of church unity and would "abdicate as easily as I take off my hat". After election, he announced that he would never give up the Papacy till death. A Pope at Rome—Gregory XII—spoke eloquently about the need for unity and declared that he would go on foot to meet his Avignon rival—Benedict XIII. But, actually, neither of them would meet, and neither obeyed the Church Council of Pisa which attempted a settlement. That Council deposed both and elected a new Pope—Alexander V. But, as the others refused to yield, there were now three Popes. At last, the Church Council at Constance ended this confusion.

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It persuaded Gregory XII to abdicate. John XXIII, successor Alexander V, a man stained with gross misdeeds, promised to abdicate, but tried to evade his promise by flight. He was caught, imprisoned and deposed. Clement VIII who had succeeded at Avignon defied the Council and kept up a shadowy court in Spain to which he retired; but died in a few years. All Europe accepted Martin V, the Pope chosen by the Council of Constance.

But, the bad period was not, still, over. Church dignitaries in the 15th century spent their time in hunting and gambling and openly had mistresses. Pope Sextus IV ordered two of his soldiers who were about to fight a duel to do it before him so that he could amuse himself with the spectacle. His successor, Innocent VIII, was the first Pope to recognise his children in public. His successor, Alexander VI, was notorious for the murders he arranged. Dancing and gambling went on in the Vatican itself. Cardinalships and other posts were sold indiscriminately. His mistress was openly called in Rome as "the bride of Christ". There are unspeakable stories of orgies when the Papal guests witnessed performances of stallions and mares, or of courtesans and gallants. The Pope conversed while Mass was being celebrated. When he was absent from the Vatican, he left in charge his daughter, Lucrezia. During the latter part of his pontificate, his son, Caesar, became the master of all Papal territories by craft or force. There is a dark suspicion of incest between Caesar and Lucrezia; but it is unproven. Another Pope, Leo X,

declared after his election, "Let us enjoy the Papacy, now we had got it." But, already, the worst period was over. With Paul IV began the series of high-minded Popes of great integrity whose religious zeal uprooted all abuses. The fundamental nature of the Church had not been damaged and she again took up the moral and religious leadership she had successfully wielded in the past.

Indeed, this temporary lapse should not be regarded as peculiar to the Mediaeval Church alone. Wherever there is a moral breakdown and degeneration in general, such abuses are bound to happen. A recent instance is from twentieth-century Russia. During the rule of Nicholas II, the last Tsar, the monk Rasputin had a sinister hold on him and his German-born queen, Alexandra Feodorovna. This monk is said to have had a pair of strange eyes which cast a hypnotic spell on his victims. Unclean and always drunken, he was against all prevalent ideas of morality. His central teaching was: "Without repentance, you cannot get salvation. But, how can you repent unless you have sinned? Hence, sin." In an atmosphere charged with the fumes of benzoin, he would make men and women dance. Then, lights would be off and unmentionable things follow. The "rascal monk" betrayed women as he pleased, and many highborn Russian ladies considered themselves sanctified by his holy touch. His malign influence in church and state ended only when in 1916 he was shot dead by a group headed by the Grand Duke Dmitri Pavlovitch.

EDUCATIONAL REFORM IN U.P.—A REPLY.

The Personal Assistant to the Hon'ble Minister for Education and Labour, U.P., writes from Lucknow under date, October 18th:

Please refer to the article "Educational Reform in the U.P." by Gautama, on pages 232-233 of your *Educational Review* for

September 1947, which has come to the notice of the Hon'ble Minister. The article is surprising, as no Bill of the kind mentioned and criticised by Mr. Gautama has been sponsored by the Hon'ble Minister for Education, nor is he aware of anyone else who is sponsoring a similar Bill.

SCHOOL BOOKS AND EDUCATIONAL PUBLISHERS

By SAI S. SUBRAMANIA AIYAR, B.A., L.T. *Retired Headmaster and Author, Madras.*

THE Provincial Government has been appointing from time to time men from among District Educational Officers, Professors in colleges, and a few select headmasters of high Schools to scrutinise the books submitted for consideration and to approve such as in their well-considered opinion are fit for use in high, middle, and elementary schools. How many of the D. E. O's and the professors entrusted with the work of approval have had experience of teaching in secondary or elementary schools, is a moot point.

In the first-place, the question arises: Are the D. E. O's and professors who are blissfully or woefully ignorant of actual classroom work competent to consider and pass a book intended for secondary or elementary school pupils? The wearer alone knows where the shoe pinches; the teacher alone is competent to pick and choose books fit for his pupils. A good number of experienced teachers or headmasters must therefore be appointed to form a committee for the selection and approval of books for pupils in secondary and elementary schools.

The appointing authorities must take note of the fact that they should select half a dozen teachers, among whom may be headmasters, who have taught a particular subject for no fewer than five years and who have been recommended for membership by District Educational Officers.

The Registrar of the Text Book Committee must see to it that each member of the Committee is provided with a copy of each book on a subject that is submitted for consideration. There should thus be formed subject-war committees each of which should consist of no fewer than five members.

In making the appointments or nominations, technically speaking, the Director of Public Instruction should not allow him-

self to be guided by the assumption which often proves an erroneous notion—that the headmaster or an assistant master of a city high school is preferable to one in a mofussil institution. We have heard enough of Mayavaram Narayanaswami Aiyar, Kumbakonam Krishna Ayyar and Swaminatha Ayyar, Tiruvalur Subramania Aiyar, and Chittoor Parthasarathy Mudaliar who held their own as against any of their compeers in the city.

Again, up in the north there were lions of headmasters whom the Andhras were proud of and delighted to honour. Why then not have a majority of such distinguished headmasters on the T.B. Committee?

To take up the Publishers' tale, we have among them impecunious men on the one hand, and well-to-do but close-fisted ones on the other. They are adept at studying the hard lot of their needy authors and pay them by way of remuneration petty sums of money barely sufficient to meet their weekly household expense. They purchase from needy teacher-authors manuscripts for a few tens of rupees and these poor authors feel elated at their sudden and surprising elevation to the rank of authors. The handing over of Ms. by itself is not the whole job of the poor author; he has also to oblige the publisher by going round among his professional colleagues and canvassing them for adoption of their books in their respective schools. That is the way of the Publisher.

The teacher-author, who with his low salary finds himself at a loss to make both ends meet, has two ways open to him to supply the deficiency. The one being private tuition to pupils at the latter's residence, the other is authorship, of course. These two fields are congenial to him, and they do pay in proportion to his professional reputation and attainments. In the field of authorship, scores of efficient teachers are petted and patronised by the shrewd publisher, and are placed above

want. And this is not often the case with the generality of the teaching profession.

Authorship is an irksome job. An author of School books should place himself within the confines of the prescribed syllabus for the class for which he writes; he should not exceed, or fall short of them. He should not talk or write over the head of the pupils for whom he writes. He should therefore equip himself well and express himself clearly.

The General Text Book Committee must go into sub-committees, as many as there are subjects. Each member of the sub-committee should submit a report of his opinion on each book examined and send it on to the secretary in a sealed cover. He should not subject himself to the influence of the wily publisher. A sworn declaration

to this effect is recommended to be obtained from each member immediately after his appointment.

The Secretary to the Text-Book Committee should prepare a general statement containing the opinions for and against each book and the one supported by the majority of votes should be passed.

In this connection it will not be out of place to suggest that each publisher should be made to submit to the secretary along with his publications a statement showing subject-wise the number of publications to be considered, the names and attainments of the respective authors, and the amounts paid to them by way of remuneration. And this requires to be insisted on in the case of each publisher so as to give no scope for any shady transactions.

NEWS AND NOTES

Under the auspices of the Teachers' Association, Tirthapati High School, Ambasamudram, the Education Week was celebrated in the premises of the school on 8th, 9th and 10th October, 1947.

On Wednesday, the 8th October, 1947 there was a Bharati National Song Competition open to all boys and girls. About 60 boys and girls took part in the competition.

On Thursday, the 9th October, 1947, there was a public meeting. Sri A. S. Srinivasa Iyengar, retired teacher of the school, presided. Sri A. Kanthimathinathapillai and Sri E. H. Parameswaran, Headmaster of the school, welcomed the gathering. Messrs. R. V. Krishnaswami Iyer, Vakil, Ambasamudram, C. S. Ramalingam Iyer, Assistant, T. H. S., Ambasamudram and M. S. Venkatachari, Assistant, Tilak Vidyalaya, Kallidaikurichi, spoke on "Education—Our Cultural Heritage," "Education in Free India" and "Nation - Building — The Teachers' Role" respectively. The President, in his concluding address, stressed the

need for clear thinking before launching a new educational plan.

The meeting on the last day was presided by Sri N. Vasudevan, the District Educational Officer, Tinnevely West. Sri S. R. Subramania Iyer, Assistant of the school, welcomed the gathering. Messrs. M. R. Kandasami Pillai, Tamil Vidwan, Tirthapati High School and M. S. Subramania Iyer, Assistant, Tilak Vidyalaya, spoke on 'The importance of the mothertongue' and 'The Teachers' Charter'. The President then distributed the prizes to the winners in the Bharati National Song competition. Then Messrs. G. Subramania Iyer, Assistant, Tirthapati High School, and K. A. Venkatesan, Senior Deputy Inspector of schools, Ambasamudram spoke on 'The State and Education' and 'Education'. The President in his concluding speech made references to the defects of the present curriculum and pleaded for a better curriculum and a better method of Teaching and Learning in Free India.

EDITORIAL NOTES

DR. MORTIMER Wheeler, Director General of Archaeology, Dominion of India, laments the

I. Promotion of Archaeological Studies

present position of archaeological studies in India, as the official Archaeological Survey of India and the archaeological departments in the States hold a practical monopoly of archaeological exploration and excavation. He rightly holds that archaeology, like other sciences, can flourish only on a basis of healthy emulation and informed criticism; as otherwise the official departments may degenerate into conceit and self-complacency, like the Universities of Oxford and Cambridge in the 18th century, feeling themselves, in the words of Gibbon, "above the fear of a rival and below the confession of an error."

Dr. Wheeler thus suggests that the Indian Universities should actually begin to encourage archaeological research and training.

"Let not these words be taken up without a seemly preparation. It is not asked, for example, that Allahabad University shall send out an army of students to-morrow to attack Kausambi, or that Patna University shall forthwith hew up the hallowed ground of Rajgir or Vaisali. Trained leaders are the first essential: men paid by their universities for a solid twelve-months' training, and then paid by their universities for passing on their training in subsequent years. Experience has shown that, properly led, the young Indian student is as apt a pupil of field-archaeology as is the student of any other nation. To teach him is a pleasure and an inspiration. He learns quickly and keenly. But he must naturally have his leader, and it is the responsibility of the university to provide the leader. The Archaeological Survey will gladly co-operate in that leader's training, provided that the period of tuition is not unduly restricted. In field-archaeology tuition is useless without experience, and the

acquisition of experience takes time. A year's hard-work with the Survey is the minimum required by a leader who is to command the confidence of his pupils.

"If but a few of the Indian universities will establish chairs or lectureships in archaeology, fill them with young men having a knowledge of history; a pride in their countryside, and a proper feeling for the open air, the task is achieved. I have no doubt that, when the men are ready, the necessary money (not large sums) for their fieldwork will be forthcoming. But the men must come first. Without them, any attempt to collect funds would be premature and indeed foredoomed. Money flows from knowledge and confidence, and only a trained man can impart the one and inspire the other.

"Until such time as the universities see fit to expend the small effort and trivial sums necessary to establish their independent field researches—as for many decades several of the universities of America have done—that over-burdened monopolist, the Archaeological Survey of India, must needs struggle ahead alone. And, being alone, it must map its route with the greater care. It must work to a definite plan, if its tiny efforts are to achieve major results within any measurable space of time. In the 'Technical Notes' of this issue I have dealt with the outstanding need of Indian field-archaeology at the present moment, namely, the provision of careful time-tables, or sequence tables of ancient cultures in various parts of India, as a basis for subsequent research on a more expanded scale. Scientifically observed and recorded 'deep digging' or 'vertical digging' is the primary essential. I have emphasised the limitations of this type of digging, and have pointed out that it will not provide that sociological conspectus of ancient civilizations which is a main ultimate goal of archaeology. But without it we cannot begin to adjust our historical or prehistorical perspective,

to interrelate and co ordinate the results of more ambitious work. And that is the reason why the Archaeological Survey, in its scheme of fieldwork for the next two or three years, has concentrated upon short-term, deep excavations on a series of carefully selected sites both in North and in South India.

"In our present scrappy knowledge of pre-medieval Indian archaeology, two main blanks have long been recognized. The first is the great gap of a millennium or more between the Indus Valley Civilization (perhaps ended c. 1500 B.C.) and the inclusion of North-West India within the Persian Empire (after 518 B.C.). The second is the main succession of cultures in South India prior to the Pallava period of the seventh century A.D. In the hope that North and South may march forward hand in hand, and above all that the universities of North and South may acquire and maintain an equally active interest in field-research, the Archaeological Survey has decided to tackle the two great problems turn and turn about. In the North, the first need was to determine more closely than hitherto the approximate date of the extinction of the Indus Valley cities. Accordingly, the key-site of Harappa, in the Punjab, has been re investigated, with important and relevant results which are described in this Number (pp. 58 ff.) These results must be followed in due course by an attempt to find a site on which successive occupations subsequent to the Indus Valley civilization may extend our knowledge into the Blank Millennium, and may so tell us something of the material culture of the formative period during which an Aryan language was first being established in the Land of the Five (or Seven) Rivers. On surface indications there is no more likely site than the great mound of Bala Hisar, at Charsada, eighteen miles from Peshawar, set fairly in one of the main gateways of India along a likely route of Aryan invasion. Bala Hisar is accordingly the next objective of the Archaeological Survey in northern India."

A writer in the CALCUTTA REVIEW, holds that it is wrong on scientific grounds to maintain that the Indian civilization is of longer duration than that of Europe. He warns us that AGE should not be the pre-

dominant consideration but influences which have been at work from time to time, and that we should not rewrite Indian history to satisfy our national vanity, and "to show to the vanquishing Europeans that we have been more civilised than they are, or preach to the people a political doctrine of racial revolt." The sources of historical inquiry should be much wider than epigraphy, archaeological remains and numismatics, that are being mostly used now, but should include the methods of palaeontology and archaeology, and draw on biological, anthropological economic and physiographical data.

Thus he observes :

"There have been two kinds of history in India. One kind described India's backwardness owing to the emasculation of the people by the enervating climate, and the other was revivalist and vaguely hinted that foreign conquest hampered India's development. Both the types have been obsessed by foreign conquest. The first went to the extreme of suggesting a permanent slavery. Pundit Jawaharlal Nehru's DISCOVERY OF INDIA is a history of India written with political motives. One is to prove India's unity, and another to explain India's backwardness. The latter is ascribed to foreign conquest. But foreign conquest cannot be an accident. It must have a cause or several causes. Since India's enervating climate is hardly a satisfactory answer, the causes must be social and political. Social and political causes contributing to India's conquest by the British or earlier by the Muslims, could not have arisen overnight. The fact is that India's social and economic backwardness was responsible for its falling a prey to successive conquerors. The difference between

a foreign conquest and an internal revolution is that whereas the latter removes the social and economic backwardness, the former takes advantage of the backwardness and perpetuates it."

Dr. K. G. Saiyidain, has characterised the promotion of concord and harmony as being the outstanding contribution of Asian culture through the ages.

III. The Spirit of Asian Culture

"All the great religions of the world—Hinduism, Buddhism, Christianity, Islam—had their original home in Asia and, whatever may have happened in their history from time to time, they were essentially movements for the 'unification' of peoples and for bringing them together on the basis of certain spiritual truths and values. In the fields of Arts and Crafts, Literature and Philosophy, they have tended on the whole, to stress the significance of Creativity, Peace and the Spirit of Humanity rather than wealth and power and material domination. They have sought the creative rather than the possessive happiness as the goal of life. Even in Science they have been concerned more with the pursuit of truth than with the commercial or sanguinary applications of scientific knowledge. Is it not a well-known fact that gunpowder, which was invented in China, was used there only for the harmless display of fire-works and it was left to others to use it for projecting pieces of lead at a terrific speed into the bodies of human beings? And, of course the great scientific triumph of preparing the Atom Bomb did not fall to the lot of any Asian nation. In fact, the roll of the really great men of Asia—men who are held in universal affection and esteem—would read like a list of names which could do honour to the Nobel Peace Prize."

It is, however, true that the East has, on the whole, been anxious to stress the supremacy of the spirit and, generally speaking, the West has concentrated more and more—particularly since the Industrial Revolution—on the development of 'Power' to the detriment of what

has been described, in the East as 'Vision'. This has resulted in a divorce between Power and Vision which has been detrimental by both depriving Eastern cultures of dynamism and effectiveness of organisation and injecting into Western cultures the germs of self-destruction which tend to disrupt them through the generation of international conflicts and discords based on greed, selfishness and exploitation. In the words of a great modern poet of India, addressed to the nations of the West, in the early decades of this century :

'Your culture will commit suicide with its own dagger; a nest perched on a fragile branch is destined to be unstable'!

And who dare say to-day that he was exaggerating things?

In the month of October, Madras had the privilege of listening to two thoughtful addresses on the scope and ideals of education by the Prime Ministers of two Provinces. On the 6th, Sri B. G. Kher, Premier of Bombay, delivered the Convocation address of the Madras University. Three days later, our Prime Minister, Sri O. P. Ramaswamy Reddiar, addressed the new graduates at Annamalai Nagar.

It has been customary on such occasions from the days of the *samavartana* ceremony described in our ancient books, to dwell on the necessity for character-building. Both the distinguished speakers have dealt with the subject, each in his own way. Sri B. G. Kher pleaded for the creation of a new ideology through a radically reorganised educational system in order to preserve the fruits of the newly won freedom. "We have solemnly resolved," he reminded the new Madras graduates, "in our Constituent Assembly to establish in our country a free, democratic and equalitarian society, and it is obvious that the establishment and maintenance of such a society throws a far greater responsibility on its members than any type of authoritarian society."

It is certainly true that every age requires its own ideology, and our age is

no exception to this rule. But the prophets of new ideologies often forget that they have not a clean slate to write upon. The past may be an inspirer, a strong foundation to build upon or merely dead wood clogging the way. But it is there and demands to be dealt with. One feels that the Bombay Premier had not paid sufficient attention to this aspect of the question. There is throughout his address a suggestion that our people require to be trained and strengthened in character, as if they have no character to speak of just now. Confounding literacy with culture is a fashionable mistake nowadays, and often leads us to ignore the wealth of character that we already possess as a nation. One wonders too whether the deplorable events in the north are not in a great measure due to the preaching of half-baked ideologies without reference to the past or the present.

On most of the other matters which the Madras address touched upon, all interested in education will be in hearty agreement. He pointed out that the chief significance of the scheme of Basic Education lay in its attempt to bring the school into vital relationship with the life of the community. Understood in this light, there need be no quarrel with Basic Education at all. Only it should be made sufficiently elastic to cater differently to different areas. Sri Kher gave his blessing to the Madras proposal to insist on a year's social service by the graduates before the conferment of degrees. Finally, he commended to them the great ideal outlined by Alexis Carrel: "Culture without comfort; beauty without luxury; machines without enslaving factories; science without the worship of matter—would restore to man his intelligence, his moral sense, his virility and lead him to the summit of his development."

Sri O.P. Ramaswamy Reddiar set before the Annamalai graduates a new ideology, which is yet not divorced from the cultural roots of our past. "I pray to God," he said, "to grant you Sankara's wisdom, Ramanuja's *bhakti*, Madhwa's sense of

service, Mahavira's *ahimsa*, Vivekananda's learning, and Mahatma Gandhi's devotion to truth." And he quoted the famous address to students in the *Taittiriyo-panishad*: "Speak the truth. Do your duty. See that your family is continued. Do not fall from truth or *dharma*. Do not forget the good. Do not discard wealth. Do not forget your duty to your ancestors and the gods. Consider your mother as your God. So also, your father, your teacher and your guests. Always do faultless acts. Follow the good that you saw in us (the teachers), but not the other things. There are men greater than us. Honour them."

The Prime Minister also stressed the need for reviving the ideals of the ancient *gurukula*. These were, as he pointed out, never narrow. There was a traditional division of the curriculum into sixtyfour subjects: and in our *gurukulas* were taught the *Vedas*, the *itihasas*, *dharma-sastras*, painting, music, drama medicine and a host of other subjects. The purpose of education is to draw out the perfection latent in every human being. "It is, as it were, the removal of the curtains of the ignorance which cover the *atma*, the storehouse of unlimited wisdom."

Finally, Sri Ramaswamy Reddiar urged the graduates to discharge the debt of duty that they owed to the villages. They should remember that it was the rural taxpayer who had borne the greatest part of the burden of educating them.

One point in the Premier's address is clearly controversial. Speaking about Basic Education, he said that it was devised by Mahatma Gandhi to educate children without books, to establish a direct correlation between the body and the mind through handicrafts, and to train the five senses properly so as to help the students' spiritual nature as well as the economic interests of the community. Educational experts differ sharply on the value of a bookless education, and it would be part of wisdom to experiment cautiously in novelites like these.

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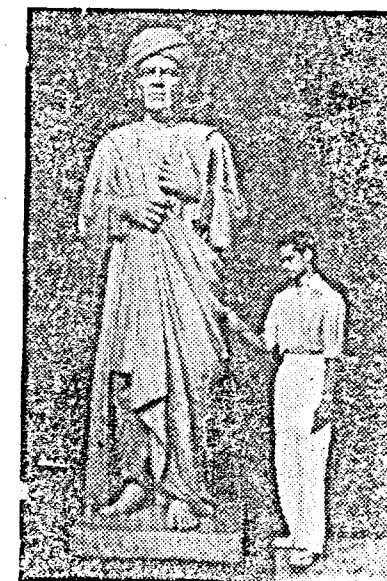
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Mattancherry. (Cochin.)

Printed by C. Krishnamoorthi at the Sri Ramakrishna Printing Works, 19-B, Woods Road, and published by M. R. Sampatkumaran, M.A., 4/A, Sunkumar St., Triplicane, Madras.
Hon. Editor: Dewan Bahadur Sri C. S. Srinivasachari, M.A.



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Annual Subscription inclusive of Postage, Rs. 5.
Half-yearly Subscription, Rs. 3

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Foreign Subscription inclusive of Postage Rs. 6-8-0.

Hon. Editor: Dewan Bahadur Sri C. S. SRINIVASACHARI, M.A.

Principal, R. D. M. College, Sivaganga

Assist. Editor: Sri M. C. KRISHNAN.

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Date of Publication: The Review is published on the 29th of every month. Subscribers who do not receive the Review in time are requested to notify the management immediately. It may not be always possible to supply the missing copies, if complaints are made months after the event, nor under such circumstances could any enquiry be conducted in the matter.

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The Educational Review

A MONTHLY RECORD FOR INDIA

VOL. LIII

NOVEMBER 1947

No. 11

A DETAILED SCHEME FOR A RURAL UNIVERSITY

By DR. K. N. KINI, M.A., PH.D. (Columbia), Director of Education, Jodhpur, Rajaputana.

THE greatest drawback in the present universities in India from the point of view of the rural population is that they impart education which has not much relation to rural life and makes people hanker after urban life, much to the neglect of the welfare of the villagers and also greatly to the detriment of the production of food, clothing and building materials for the nation at large.

Till recently we were importing mainly manufactured articles from foreign countries. Now we are importing even food from abroad at fabulous prices. If both these processes should go on for a few years more, we shall have to consider seriously whether our nation will be solvent at all, let alone maintaining our self-respect as a nation. If we fashion our institutions of higher learning so as to subserve rural interests, or rather start and maintain them in villages, for studying and investigating village occupations and industries and for enabling the graduates produced to follow these rural occupations and industries throughout their life and thus be leaders of thought and action in villages, a great revolution in our methods of life and work can be produced in less than a decade.

After the high school (which also should be established in villages in large numbers) the pupils should be given opportunities in Rural Universities, of studying optional subjects like agriculture, horticulture, dairy-farming, sheep-breeding, rural textiles etc.,

for degrees in science, and rural sociology, rural economics, rural education etc., for degrees in arts. At the Intermediate stage two-thirds of the time could be devoted to the optional group and a third of the time for languages, which will be the regional language, Hindustani and English. In the higher university classes, almost the entire time should be devoted to studies and research in the scientific, technological and arts subjects. The medium of instruction should be the regional language.

Instruction in the designing and construction of appliances and machinery needed for rural occupations and industries should be emphasised and these will have to be produced in the region itself as far as practicable.

It is estimated that out of a million people, about 28,000 are of a very superior intelligence who will profit by university education and another equal number could be expected to take advantage of higher studies. About 5000 of these people could be expected to be studying in the university at any one time. A rural university for about a million population cannot be regarded as an extravagant goal. The United States of America have a university or institution of university grade for about 75,000 population. Canada has a university for about half a million people and Russia has a university for about 240,000. In India there is a university for as large a population as 29 millions. That is one of the reasons

why people of the former countries are economically more advanced than we are and we are as backward as a nation can be.

The Rural University will encourage adults of all ages (15 to 90 years) to take higher education by holding special classes to suit their time and interests and offering free education. The state should finance the rural universities and consider the money spent as an insurance against famine, pestilence, and disease. *The state should employ only graduates of rural universities in all national activities which affect rural life.* Only then will the 85 per cent of the population who live in villages prosper.

In a note on my article, "Ruralizing University Education" published in the 'Harijan' dated October 13, 1946, Mahatma Gandhi asked me to devote my energies to evolving a workable scheme of Rural Universities and in an article "Grama Vaidya Peetha" which he wrote in 'Harijan Sevak' of the same date giving a gist of my scheme, he said that if the Central Cabinet and the Provincial Cabinets would take the scheme as their own, much good would accrue.

With a view, therefore, of placing before the public a workable scheme of a Rural University, I give below an outline of the objective, rules and schemes of studies that may be adopted in Rural Universities.

OBJECTIVE OF A RURAL UNIVERSITY

The objectives of a Rural University are:—

1. Enabling intelligent and capable village youths and adults to pursue studies at University level i.e., higher than the accredited high school level, in subjects which are intimately connected with their immediate living and to conduct research in these subjects¹ and arrange to disseminate the results among the villagers so as to enhance the knowledge of the rural population about their own occupations and increase their efficiency in carrying on these occupations.

2. Stimulating village youths and adults to conserve whatever is ennobling in rural culture and developing it so as to enrich the physical, intellectual, moral, social and artistic life of the rural population.

3. Developing in the rural population a strong sense of rural citizenship which will enable them to conduct their own affairs with integrity, efficiency and unity.

4. Arranging a system of adult education which will be continued throughout the life of the adults by their intimate connection with the activities of the Rural University.

ORGANIZATION OF THE UNIVERSITY²

The Management, Supervision and Control of the Rural University shall be vested in a Board of Trustees consisting of the President of the University, the Vice-President, a representative of each of the major interests of the Province or State, namely Education, Industries, Agriculture and Communications, four representatives of the Houses of Legislature from among

¹ Group A—(1) Agriculture (2) Horticulture (3) Sericulture (4) Dairy farming (5) Poultry Farming (6) Sheep-Breeding (7) Bee-Keeping (8) Fisheries (9) Rural Textiles (10) Rural Sanitation & Hygiene (11) Rural Home-Making including nursing (12) Rural Electrical Engineering (13) Rural Communications including Civil and Mechanical Engineering (14) Rural Building Trades & Architecture (15) Pottery (16) Utensils (17) Forestry.

Group B—(1) Rural Sociology (2) Rural Economics (3) Rural Reconstruction (4) Rural Education (5) Statistics with reference to Rural subjects (6) Retail selling and Distribution (7) Rural Banking and Co-operation etc.

² For the Universities that will be established by governments the latter will sanction the Act, Ordinances and rules. Private bodies, which may establish Rural Universities will obtain Charters from the local governments and get the approval of the Government for the ordinances and rules that may be formed by those private bodies.

those members who are elected from rural constituencies, four senior-most Deans or Professors, as the case may be, of the University, and four members elected by the Registered Alumni of the University.

The President shall be the Chief Executive Officer and in his absence the Vice-President, both of whom shall reside in the Campus of the University and shall identify themselves with the interests and aspirations of the rural population.

The Board of Trustees shall make ordinances, administer the property and funds of the Rural University, direct the use of the common seal of the University, accept donations and transfer any movable or immovable property on behalf of the University and be responsible for maintaining the standard of teaching and examinations in the University, for which purpose they may summon any members of the teaching staff to attend the meetings of the Board when any particular matter requiring their counsel may come up for consideration.

The Board shall publish from time to time the names of High Schools recognised by them for sending students to the Rural University.

The Board of Trustees shall have power to appoint a Commission periodically to make a detailed survey of the organization of the University and also the standard of teaching and achievement in the University and such other matters as may be referred to it by the Board.

FACULTIES

The Professors and Assistant Professors in each subject and such other persons as the Board may nominate shall constitute the Faculty in that Subject, a Dean of a College or a senior professor being the chairman. The Faculties shall draw up the syllabuses in their respective subjects for the various examinations and also schemes of such examinations consistent with the standards to be aimed at for the progress and betterment of rural life and submit them to the Board of Trustees through their Chairmen for approval. Each Faculty

shall conduct the examinations for the various degrees in the respective subjects as per rules and submit the results to the Board through their Chairman.

When a student is admitted to a course, it shall be the duty of the members of the staff on the respective Faculties to see that he shall complete each credit successfully. Failure should be extremely rare. If a student does not attain the required competency in any item of a syllabus of the selected course, it shall be the duty of the members of the staff to give him more coaching and practical work and bring him up to the required standard, taking more time for the course.

EARNING BY STUDENTS

It shall also be the duty of the members of the Faculty to see that the articles produced by the students in the science and industrial sections are as far as possible saleable. The students shall get half the sale price after deducting the cost of raw materials and reasonable overhead charges. *The whole-time students should earn part of their expenses at the University by getting their share of the sale price or by getting some employment during their attendance at the University. A University Student Employment Bureau under the general guidance and supervision of the Board of Trustees shall be maintained to assist the students in getting employment during residence and also after getting the Degree in cases of need. The staff should co-operate in the work of this Bureau and train the students to be self-reliant.*

ADMISSIONS

Method of Admission:—

Admission to the First Year University class may be obtained by:

- (1) presenting a certificate of having passed the final examination of any High School recognised by the Rural University or an equivalent or higher certificate, or
- (2) passing an admission examination conducted by the Rural University.

The minimum age for admission to the First Year class is completion of fifteen years. The candidate should have the

requisite physical stamina to stand the strain of practical work to be testified to by the University Medical Officer. Admissions to higher classes will be regulated by the Board of Trustees by special rules.

Adults of the age of 20 years and above, who may not have the requisite qualifications mentioned above for admission to the First Year University Class, may take any courses without being eligible for any degree, provided they give satisfactory evidence that they will profit by the course. They will get a certificate in which will be noted the courses they may obtain. They will also be eligible to take courses in optionals meant for higher degrees, provided they have the experience and ability to undergo them successfully and provided they have been engaged in these pursuits in the region and are likely to benefit by the training.

Students may enter the University at the opening of any of the following terms:

First Term: 15th June to 15th October

Second Term: 1st November to 1st March.

Summer Term: 25th March to 25th May (Intensive course).

The University may confer the following degrees:

1. Associate in Science. (Four terms).
2. Associate in Arts. (Four terms).
3. Bachelor of Science. (Four terms after A.Sc.)
4. Bachelor of Arts. (Four terms after A.A.)
5. Master of Science. (Two terms after B.Sc.)
6. Master of Arts. (Two terms after B.A.)
7. Doctor of Philosophy. (Two terms after M.Sc. or M.A. and a research dissertation which may take a further period of two terms or more).

ACADEMIC WORK

Adviser: Each student is assigned to a member of the faculty who will act as his adviser to assist him in selecting his subjects so as to secure a well-rounded education and in interpreting the requirements for a degree.

CREDITS

The unit used in determining the amount of work required for a degree is the credit which represents one hour of class work per week per term or two hours of practical or field work per week per term.

Students who are unable to take the full number of credits for a term for want of time may take as many credits as they can conveniently, and finish the rest of the credits in subsequent terms. Tuition in some subjects will be arranged in the evenings and nights for the convenience of those who have to earn during the day.

EXAMINATIONS

The progress of each student will be judged by his day to day performance by the teacher concerned, a detailed record of the judgment being maintained and communicated to him from time to time. The teachers should try to pull up backward pupils by timely advice and instruction. There will also be a terminal written examination in each subject at the close of the term, and a viva voce wherever needed. The Faculty in each subject will determine the performance of the student for earning success and degree.

MILITARY TRAINING

The main object of Military Training is to equip the students with necessary discipline as citizens, for participating in the defence of the country. It will also afford the government a wide field for selection of the prospective Commissioned Officers of the Military Department, especially in times of war emergency.

(To be continued)

MADAME MONTESSORI'S INDIAN MISSION.

BY SRI R. SRINIVASA IYENGAR, *Headmaster, Sarvajana High School, Peelamedu.*

TWO gifted personalities, after distinguished records of public work in their own countries, made India their home to serve her. Madame Montessori's opening the Besant Cultural Centre at Adyar is an event of supreme significance. Both are kindred souls, drawn together by the affinity of their cultural ideals and spiritual kinship. Dr. Besant had always claimed that her principles of education, especially for the first septennate, are in accord with Montessorian principles. Madame Montessori has often acknowledged Dr. Besant's moral support to her educational system; and her association with the Besant Cultural Centre seems to have been ordained by the great gods above.

Like Dr. Besant, Madame was drawn to India by this country's contribution to the world's spiritual progress. Born in Italy, the source of European art and the zealous keeper of most beautiful monuments which tell step by step of its past and present glory, she felt impressed by the descriptions of the jewels of architecture of the holy places in South India and the carvings and sculpture of the famous Rock Temples of Mahabalipuram; her intellect has been stirred by the philosophical systems of Sri Sankara and Ramanuja and the spirit of the songs of the Tamil poets. In a peroration reminiscent of Dr. Besant's, she said, "I feel that India wakes, and I foresee the day when, lofty and imposing, crowded with distinguished individualities, endowed with spiritual strength, India will offer to the world the light which will dissipate the shroud of the darkness which enfolds it. India will then make known the characteristics of true service and will teach to a materialistic world the values to be cultivated in order to obtain a human society in which peace and serenity will be the rule and not the exception." She believes that principles of education which are based upon a feeling of love for the son of man and which do not consider race and religion,

could flourish and find a fertile application in India, a land which has kept through the centuries its attachment to purely spiritual values through peace and which has always extended its generous goodwill to men. So she throws upon us all an obligation to understand and profit by her educational message. Madame Montessori mentions another object of her visit to India. She says: "I have come here not merely to teach a method of education, but rather to fuse all the aspirations of my soul with the aspirations of this greatest country. For the enrichment of human knowledge it is necessary that the experiences of the different races should be fused together. That fusion will bring about a fraternity that will bring spiritual unity to the world."

Another strange coincidence. The year that gave India our Mahatma, the apostle of non-violence, gave Italy the apostle of love for the child. Born in 1869, and graduating in medicine in 1894, she started life as an assistant doctor at the Psychiatric Clinic in Rome, and thus came in touch with the inmates of lunatic asylums and idiot children. She studied the pedagogical treatment for the various diseases of defective children according to the method initiated by Itard and elaborated later by the French physician, Dr. Seguin. Children considered sub-normal passed the State examinations creditably; and they could not be considered backward at all. Dr. Maria divined that the doctor's successful "physiological method" might prove equally efficient for normal children, too, and might develop or set free the personality in a marvellous manner. She left the school for deficient, and was for two years in charge of the State Orthophrenic School. The intuitive guess or feeling became a passion with her.

It would be interesting to know the ordeal through which great souls pass in their quests for truth. The world is familiar with the labours of Madame Curie in her experiments on pitchblende for the discovery

of radium. Madame Montessori's study of the pedagogical method revealed a similar devotion. She translated into Italian and copied out with her own hand the writings of Itard and Seguin from beginning to end and made for herself books as the old Benedictines used to do before the invention of printing. She has recorded that she felt the need of modification and that she resolved to write the entire volume by hand in order that she might have time "to weigh the sense of each word and to read the spirit of the author". Then with the help of an English friend she translated into Italian the English edition of Seguin's she got from the discarded library of a private gentleman in New York. It struck her that the doctor's method based upon the individual study of the pupils and upon the analysis of physiological and psychological phenomena would pave the way to a complete human regeneration.

In 1906, she got an opportunity to put her theories into practical test when she was asked to organise infant schools in tenements for children between 3 and 7 years of age. It was at this stage that she organised the "Children's House" for paying attention to the education, the health, the physical and moral development of children. The House shall have a Directress, a Physician and a Caretaker. The Directress shall fix the programme and hours of the House. The privileges of the Children's House will be open to those parents who will agree (a) to send their children to the House at the appointed time, clean in body and clothing, and provided with a suitable apron, and (b) to show the greatest respect and deference to the Directress and to all persons connected with the House, and to cooperate with the Directress herself. In 1912, she published "The Montessori System", describing her revolutionary system of child-education.

HER CHILD-IDEOLOGY.

To understand aright her educational system, we should understand the child-ideology of her conception. The child is the foundation of a healthy society, and the source of all progress. The problem of the child is a vital social problem, the most vital

of any. It bears upon the future of mankind, of every class, country and race. The child has a power essential to the construction of society, to the further destiny of man. It is in childhood that these qualities are built up, developed and fixed up in our personality. The child is the father of the man. He is the being who in the near future will perhaps be able to show his own power. The most important thing in the world is the getting into contact with the soul of the child. No civilisation and no culture will be complete until the secret of the child's soul is realised and understood. All the social problems and other problems which confront us can be solved by realising the value of the hidden man in the child, reforming education and placing the human nature of the child as the centre of all activities. The child may be our protector. The child is the only foundation on which we can build a new and a better world. The child is a guide, because he reveals the psychic laws of the formation of men; and children have the marvellous power of transforming themselves according to the conditions of the environment to which they became adapted. The child is the man in process of development. Once the child's spiritual powers are revealed, adults will realise that spiritual forces are present in families, because of children. The child is the missionary in the family, sent by God to every home to teach man spiritual powers; the child is in fact the teacher of men. Every child born has in itself divine powers given by God. The child is the zealous keeper of all the gifts of the race, of its tongue, of its culture, of its physical and moral health. All this reads like the poetry of childhood, the dream of a seer and a visionary. What can a practical educationist achieve with this faith, this vision in the Divine powers of the child? This faith is real to Dr. Montessori. With great poignancy she says, "In the incomprehension of the Divine powers of the child, I see the crucifixion of the Messiah taking place in the life of every child in the home and in the school, as its divine qualities are destroyed systematically by the ignorance or the unawareness of the adult in his treatment of the child."

Reviewing her philosophy of child ideology from a mundane plane, the value of education from the earliest years must be patent and is corroborated by the researches of Prof. Freud. "Most mental disturbances, nervous breakdowns and social misfits are due to defective training in early childhood." All the human faculties are acquired by children before education is thought worthwhile. The child's psychic development includes periods of special sensitivity only during which definite functions of the mind can be acquired naturally. During these periods the child is impelled within himself towards these functions; and imposition of unsuitable activities will result only in strain. The child has in it the laws which guide its physical and psychic growth; and education should be so fashioned as to appeal to each 'sensitive' period the child goes through in the course of his development. Childhood is a period of great importance for the storing up of satisfying experiences with things. Sensory and muscular training is essential. Every child has the craving to touch or remove or replace things and compare them. Every surface, every solid, every liquid within tiptoe-reach offers the child the touch and motor experiences in regard to form, texture, direction, distance, and so on. The sensibilities in the child's development are explained by her by referring to the Dutch scientist Ruge De Vries' researches on the "sensitive periods" in animal life. For example, the butterfly caterpillar must feed on tender leaves, and yet the butterfly lays its eggs near the trunk of a tree. The caterpillar is strongly sensible to light, and follows the summons of light wriggling on till it finds itself on the tip of a branch and among the budding leaves that give it nourishment. When the caterpillar has passed through its first stage and is full grown, and when it can eat food, it loses its sensibility to light. The sensibilities are transitory and limited to the acquisition of a determined characteristic. Once one characteristic is developed, the corresponding sensibility disappears. Similarly, in the growth of the human child also, "the inner sensibilities determine the selection of necessary things from a many-faceted en-

vironment and of circumstances favourable to development." In these sense-relations between the child and his environment lies the key to the mysterious recess in which the spiritual embryo achieves the miracles of growth. Dr. Maria Montessori has designed her mechanism, her "Montessori apparatus" to enable the child to acquire a mastery of his environment in many of these periods of sensibilities. This didactic material devised by her contains within itself the control of error and makes auto-education possible to each child. The exercises follow a definite sequence which suits the growth of a child's mind. Thus are observed the sound principles of education; namely, every child must be treated differently from every other child; no human being is educated by anyone else, and all growth must ensue from a voluntary effort of the child himself. The teacher's task is to aid in the child intellectual or emotional development by helping the child to be freer, and sensitive to his "inner urge" and to the demands from outside. Then he will be fulfilling the purpose of true education, viz. "free the life-process for its own most adequate fulfilment", in the language of the great educationist, John Dewey.

FREEDOM AND DISCIPLINE.

The above brief account of the ideals and practice of the Montessori system of education would be incomplete without reference to her ideas on freedom and discipline. Freedom, as is well-known, is the keynote of the Montessori method. But freedom is synonymous with activity, and not incompatible with discipline. She has said, "Freedom and discipline are the two sides of a coin". Freedom must necessarily be active. That individual who has been rendered artificially silent as a mute and immovable as a paralytic is not disciplined, but "annihilated." That individual only can be called rightly disciplined who is master of himself and can therefore regulate his own conduct when it shall be necessary to follow some rule of life. This concept of active discipline contains a great educational principle.

The discipline through freedom cultivated through habit and practice will enable the child to perform easily and correctly the simple tasks of social community life, too, and thus imbibe collective interest and good breeding. We must check in the child whatever offends or annoys others or whatever tends towards indecorous or impolite acts. But all the rest—every manifestation having a useful scope, whatever it be, and under whatever form it expresses itself, must not only be permitted, but must be observed by the teacher with patient watchfulness and alertness, for the proper moment to put the child in a "learning environment." But when the child manifests a tendency to violate collective good or express his liberty in an indecorous manner the tendency must be rigorously suppressed. Montessori recognises that there are situations in life when immobility is a necessity, such as sitting in a lecture-hall or at a concert. But there again she emphasises that it should be disciplined immobility, disciplined silence, like disciplined activity and disciplined freedom. Freedom can express itself in movement as in listlessness. Her advice on this matter may be given in her own words:—

"If we can, when we have established individual discipline, arrange the children, sending each one to *his own place in order*, trying to make them understand the idea that thus placed they look well, and that it is a *good thing to be thus placed in order*, that it is a *good and pleasing arrangement in the room*, this ordered and tranquil adjustment of theirs, then their remaining in their places, *quiet and silent*, is the result of a species of a *lesson*, not an *imposition*. To make them understand the idea, without calling their attention too forcibly to the practice, to have them *assimilate a principle of collective order—that is the important thing*."

The learned doctor is convinced that an astonishingly "free" and perfect discipline could be built up with quite tiny children. In her view, a room in which all the children move about usefully, intelligently and voluntarily without committing any

rough or rude act is a class-room very well-disciplined. Otherwise, class-rooms are "rows of butterflies transfixed with a pin."

The great educationist emphasises that in order to be actively disciplined, the child must first acquire the idea of 'good and evil.' The child must be made to understand that goodness is not immobility, and evil is not activity. The Montessori discipline is *discipline for activity, for work, for good*, and not for immobility, not for passivity, and not for obedience. There is great consolation for the teacher that certain safeguards have been provided for in the rules of the Children's House. Children shall be expelled from the House who present themselves unwashed or in soiled clothing, who show themselves to be incorrigible, and whose parents fail with respect to the persons connected with the House, or who destroy through bad conduct the educational work of the institution. I am reminded of the principle laid down by the famous Dr. Arnold of Rugby in the conduct of his institution that "sending away boys is a necessary and regular part of a good system, not as a punishment to one, but as a protection to others." Dr. Arnold accepted the Headmastership of Rugby, only after this right claimed by him was conceded by the trustees. He wrote to a friend, "I should not like to enter on an office which I could not discharge according to *my own views of what is right*." The right to expel is only a safeguard for maintaining the good name of the institution which recognises the principle of "Freedom for the Child."

If, as Madame Montessori expects, the child could know always what is good and what is evil, and if the teacher could educate the child and instil in him the power of discriminating between what is good and what is evil, and if this faculty new developed could enable the child to meet with all situations in after-life, the solution of the world's problems is no tough job. Again, it is doubtful if, even granting that child-education is important in the formation of man and the better ordering of the world, the Montessori system of education could be given the first place in the order

of priorities in our country's educational programme, when we have not established free elementary education for all, and could not follow up the education from 3 to 7 with education further beyond 7, for all the children in our land. However, as an educational experiment, a network of Montessori institutions should be established by philanthropists and aided by the Provincial Governments, and research should be organised for studying the laws of the development of childhood. We have to realise that if we relax discipline and give freedom, there might be a development in the child's personality; but at the same time the relaxation of discipline brings unpleasant consequences. When freedom is allowed, culture suffers, and the amount of study becomes less than it should be. The world needs today more than ever greater culture, greater discipline, and stronger personalities. What Madame Montessori said at the Montessori Congress in Edinburgh before coming out to India needs to be pondered over again and again; for several teachers believe the Montessorian freedom for the child to be freedom unconnected with discipline. She said in 1938; "We cannot live without discipline. In order to have discipline we must have freedom; and to have freedom we must have discipline; but to have both, freedom and discipline, the teacher and the child have to raise themselves to a higher level."

Reference was made at the outset to Dr. Besant's Montessori system of education. She has said, "The first seven years are dominated by the senses, and their training is the education fitted to these years; for this, the child should have as much freedom as is consistent with his safety, that he may show out his qualities, his tastes, his impulses, that the teacher may rightly meet his needs and impart the knowledge he seeks of all the things that surround him. Every generous impulse should be encouraged, every selfish impulse tenderly checked, never by a harsh word or look, so that the child may be utterly fearless, trustful and confident. Up to 7, the body should be the first care, and lessons should be in the form of play, and

great freedom of choice should be allowed. No care in after-life can restore the stamina of the body ill-nourished or unwisely/nourished during the first seven years of life."

Mahatma Gandhi has emphasised the importance of training in the first seven years. Addressing the Basic Education teachers at Sevagram in 1944, Gandhiji said, "Originally, this new education was intended to cover only the first seven years of a child's education viz., from the 7th to the 14th year. As a result of further thought, I have come to the conclusion that this education should cover the whole of life from the moment of conception to the moment of death." Again, on another occasion, he emphasised the importance of attention being given to the child from as early a stage as possible. He said: "I must have my eye on the children right from their birth. I will go a step further and say that the work of the educationist begins even before. For instance, if a woman becomes pregnant, Sha Devi will go to her and tell her, 'I am a mother as you will be. I can tell you from my experience what you should do to ensure the health of your unborn baby and your own.' She will tell the husband what his duty to his wife is and about his share in the care of the expected baby. Thus the basic school teacher will cover the entire span of life." If the care of the child during the first seven years is admitted to be important in principle, would it not be advisable to study and introduce the scientifically devised scheme of Montessori training, with adaptations, if necessary, to the conditions of our country?

The venerable Doctor believes that a new civilisation will come into being, a civilisation made of love and peace, a civilisation dictated by the laws which God has placed in every man that is born. Her great India mission, her inspiring message to the Indian teacher is this: Incarnate the spirit of the great Indian people to all your children, rich or poor; India's great contribution to the world will be transmitted by the awakened spiritual treasures of India's children to the peoples who are waiting for India's message to the world.

BLAZING A NEW TRAIL IN EDUCATION.

By MR. S. H. WOOD, *Formerly in charge of the training of teachers in the British Ministry of Education.*

THE most significant educational achievement in England since the end of World War II is the establishment of "Emergency Colleges" for the training of teachers. These institutions are remarkable for three reasons in particular.

In the first place the students who attend them are mature persons, nearly all of whom were pursuing occupations other than teaching before the war and all of whom have, during the war, performed some form of National Service. Not one of them is moving from school direct to college. In the second place, the Ministry of Education, for the first time, is accepting for purposes of qualification, a course of one year only (actually the course extends over about 13 months) as adequate for students who are not university graduates. The minimum course for the non-graduate has hitherto always been two years. In the third place, the training of these mature students is entrusted not to the professional trainers of teachers, but to practising teachers in the schools, most of whom have never had any experience of training others for the profession.

IMMEDIATE INCREASE NEEDED.

These three significant features merit further consideration. The fulfilment of the intentions of the Education Act of 1944 demands two things in the supply of teachers: first, an immediate large increase and second, a steadily maintained annual output, greater than in pre-war years, in order to keep the increased establishment permanently up to strength. The latter is a long-range problem which can be planned, if not at leisure, at any rate without rapid improvisations.

But the immediate increase required can be secured only by drastic measures and urgently executed plans. When the Ministry decided to offer a year's free training to

anyone deemed suitable, man or woman, on demobilization from the Forces or other forms of National Service, no one could foresee what the response would be. In fact 90,000 applications have been received and it is probable that 40,000 of the applicants will be accepted.

What sort of men and women are these, and what methods and standards of selection have been applied to them? They range in age from about 22 to 35; they belong in variety from the wartime omnibus conductress to the officer in the Forces with five or six years' service, much of it overseas; from men and women who left school at 14 years of age to those who completed a full-time secondary education up to 18; from those who always wanted to be teachers, but were prevented before the war by various circumstances, to those who have of choice spent years in some other occupation and only now turn their minds to teaching.

THE TEST.

What are the standards of selection? Clearly they are not just, "How much does this applicant know?" but rather "Is this man still growing?" or "Does this woman reveal the temperament and grace which suggests that in 10 years' time she will still have her head above water?" In short the test is not present attainment but potentiality judged by all the evidence available regarding educability and character.

Naturally, the first cry—and it came from the well established teacher—was that this was dilution; and, of course, it may be dilution judged solely by academic attainment or pure knowledge at the moment of entering the profession; but, judged by standards of experience of life and social awareness, it will result in an enrichment of the profession.

The colleges, some 30 of them, each accommodating on an average about 200

students, are full of life and experiment. Some of them are single sex institutions and some are mixed. Some are mainly residential and some are mainly day colleges. Many of the students, both men and women, are married, and some have children. The only complaint of the staff is that the students cannot be persuaded to "let-up" or relax.

These men and women are burning to get to their jobs and they regard every moment of their training as significant. They will be on two years' probation when their intensive course is completed. During this period they will be expected to undertake some directed reading and attend refresher courses. Some may fail to make good; in any case a ruthless standard of suitability must be applied during the probationary period in fairness to the teacher himself, no less than to the children in the schools.

SECRET OF SUCCESS.

Two things remain to be said. These students in training will not undergo any

formal examination at the end of the course. Month by month or at other convenient intervals there is an assessment of each one of them by the staff of the college. In this way those few who are not justifying their selection are firmly weeded out. The other extremely significant factor making for the success of these colleges is that the Ministry has not prescribed how the colleges are to be conducted; nor, save for very general guidance, has the Ministry or any other external body planned the curriculum.

In effect the ministry says to the staff before each college opens, "Get to know one another quickly, because in the course of a few weeks we shall present you with 200 students of diverse ages, abilities and experiences. Don't ask us how they are to be trained because we don't know. Find out as you go along". This attitude on the part of the Ministry is the secret of the success of the colleges. It inspires confidence in the staff who feel free to blaze a new trail in training.

AUSTRALIANS DEMAND BOOKS.

By ANDREW FABINYI, *Ph. D.*

IT is clear now that the Army Education Service in World War Two has had a powerful long-range effect on Australian life. Service Libraries can be thanked for this.

In spite of continuing post-war production difficulties, Australian publishing figures are soaring, and the number of titles published in 1946 passed the 1000 mark. New library laws have been passed in these States. Adult Education Councils are being formed, existing Workers' Educational Association classes are packed beyond capacity. Commonwealth and State authorities are now beginning to yield to the public pressure for more money for books, libraries and education. That such pressure does exist is undoubtedly

due to a great extent to the returned serviceman. While in the Services, he has had a foretaste of what an aggressive adult education scheme coupled with an extensive free library service, means. He liked it. He wants more of it.

The notion that books are weapons had won almost unanimous recognition in Australia, as elsewhere, in World War Two. During the war the Services Education Schemes, which were made responsible for the provision of libraries, had to face problems of very great complexity. In Britain, in America, in Russia, wartime library services were logically built on existing civilian library resources and were backed by local publishing. Australian civilian library services were—and to some extent

still are—inadequate in varying degrees throughout the Commonwealth. Local publishing was still in its infancy—a healthy baby, but certainly not yet fit for military service. The average yearly title production of Australian publishers before 1939 was 400, and only a fraction of this figure refers to fully bound books. An original and independent library service had to be created in Australia out of nothing. Books had to be bought and assembled, the first of all found. They had to be catalogued and processed. And then transported to and distributed in, remote areas—New Guinea, Bougainville or Borneo.

The establishment of Army libraries began in 1939 when it was decided to set up reference libraries in all training centres. But things moved slowly. The Department of the Army became perplexed when first hundreds and then thousands of pounds were asked for "books". It was the generous response of the then Prime Minister John Curtin to a personal appeal from the Commander-in-Chief in 1942 which made the large-scale establishment of these libraries possible.

Then the organised, extensive acquisition of books began. All this had to be done at a time of world-wide shortage of books. The shelves of Australian bookshops were bare of many titles. Local publishing was crippled by shortage of paper and manpower. London's publishing centres had been bombed and in the seas were U boats. But for that spirit of co-operation which men show in time of stress, Australian Army libraries would not have been possible. As it was, booksellers and publishers in Australia, the United States and Britain rallied to help. By the end of 1943, the Army Education Service had a library of 153,000 volumes.

By the middle of 1945, 600,000 books had been bought for the Army Education Library. It had, of course, no fixed location, but moved with the troops through the South-West Pacific. It was open to Australian and Allied soldiers alike.

Reference books covering 1700 different titles were organized into Standard

Reference Libraries. These were set up in hospitals, education centres and Army headquarters, mostly outside the Australian mainland. Four thousand Circulating Box Libraries each housing 40 books were circulating from unit to unit. Near the end of the war, twelve Text-book Libraries, consisting of more than 4,000 volumes each, were sent overseas to provide the texts for the education plan which was to be carried out during the pre-demobilisation period.

When, in 1943, correspondence courses at university level were thrown upon to service students, a Services Textbook Supply Depot had to be organised. Service students' success depended on the availability of text-books, and a central organisation was set up to acquire textbooks and to sell them to servicemen against a debit in their paybook. By the beginning of 1945, this Depot carried 45,000 volumes of 1,200 different titles and handled an average of 2,500 transactions a week.

The Australian Army Education Library aimed at fostering the reading habit, and recognized it as its major educational task. In this respect it differed from library services in other armies where as a rule only textbooks were supplied entirely free and books called "recreational reading" had usually to be paid for, if not by the individual, then on unit funds.

The conception of the Australian Army Circulating Box Library had also an element of novelty in it. They circulated all sorts of books together—detective stories, art books, poetry, novels, sociology, history, travel etc. were sent in the same box to the same readers. There was, of course, some waste; the "heavier" book was not always read. But by carrying such a variety of books into units, new worlds were opened to men who had never tried serious reading before.

Driven to reading these books, partly by boredom, but mainly because they were within their reach, they discovered the pleasure of reading for information, study and self-improvement. The benefit these libraries conferred on soldiers, was immense. They sustained morale in the heat of

fighting or during periods of frustration. The untrained mind was taught to read; the habitual reader was kept in touch with current thought and literature.

With the rapid demobilization of the Services these war-time libraries have been dispersed, perhaps too hastily. But a nucleus of the service has been retained in Japan

and on mainland establishments. Army libraries have been retained in all Commonwealth Territories, particularly in New Guinea and Northern Territory, and are now being administered by the Commonwealth National Library.

In the life of the Australian who saw active war service, books have come to stay.

WHY NOT THE FILM STRIP?

By NEIL GOKHALE, Bombay.

FOR a considerable time schools in this country have used visual education methods consisting of magic lantern and slides, the more progressive types even the episcopes. The former projects the picture by transmitted light and the latter by reflected light. Often both methods are incorporated in one instrument, that is, the Epidiascope. I am doubtful if this is, for the average school, desirable, as separate instruments may either be used together in one classroom or supply the needs of two different classrooms in the school at one and the same time. The actual condition of use will decide whether the instruments are best used singly or in combination.

The magic lantern suffers from the disadvantage of requiring as a rule large numbers of heavy bulky and easily breakable glass slides. Recently however, film-slides have been produced for use in magic lanterns. These are films bound between pieces of clear glass of lantern slide size and placed in the carriers. This is a somewhat complicated procedure and some time is lost. The advantages in storage, transport and durability of such film-slides, however, outweigh their advantages and film slides are fast replacing the old glass type of slide.

A development in transmitted projection of stills which is becoming increasingly popular is the film-strip method. In this a series of pictures, sometimes with captions upon them or on sections between them, are

printed in sequence upon a roll of film, and this fits on to a roller above and beneath the lens of the filmstrip projector. To bring each picture into view it is only necessary to turn the knob until the mechanism clicks and thereby winds the next picture into position.

In this manner, sets of pictures illustrating a particular feature e.g. The Wheatlands of the World, can be kept together on one roll which may also contain the appropriate sketch maps, graphical tables and other illustrative material appropriate to the subject. The rolls of filmstrips are easily stored, are easily transported and, being tough and non-inflammable, are practically indestructible.

Projectors for these filmstrips (which contain pictures smaller than those of the usual sized lantern slides,) can be obtained quite cheaply. One for classroom projection cost us, in 1939, about Rs. 250 (For longer distances of throw and hence for bigger halls the projectors are correspondingly more expensive.) These are also attachments for fixing on to existing magic lanterns to enable them to take the filmstrips.

In America, they also use the filmstrips in combination with descriptive gramophone records, the point in the description where the picture has to be changed being indicated by a "ping" on the gramophone sound track. The knob is then turned by the operator and the new still picture appears

on the screen, so to say "in step" with the description that follows on the gramophone record.

The idea can be very well adapted to India where recorded lectures in the principal fourteen languages can be produced to run with a single set of filmstrip pictures.

Probably the supply of filmstrips with descriptive material in their titles and amplified notes in the form of printed booklets is the most suitable use of this method by schools. An added effect which is possible for the schools already possessing a radio is to construct a system where the teacher may speak into a microphone and through an amplifier serving as a loud-speaker. The improvisation may cost about a hundred rupees at most and the existing school radio thus used to serve its maximum best.

Certain firms are producing sets of these filmstrips to illustrate specific subjects and plans. They are prepared to make up sets of pictures into filmstrip at a nominal charge per picture. This is far cheaper than the old magic lantern slide which would cost much more per slide. One good advantage of the filmstrip is that the pictures are always kept in correct order and the sets are always complete. The teachers' own

pictures can be put on to filmstrips with the same care as upon the old fashioned slides.

This method of "still" projection need not, indeed should not, drive off moving pictures from our schools. It will, however, serve to make more convenient and comprehensive the showing of a wide range of still pictures necessary in school work. It is far cheaper than moving pictures and the saving effected in the use of still films could be utilised to meet the expenses of showing perhaps fewer but vastly better moving films in schools. The separate function of the still picture, and of the moving picture in education must be clearly worked out, the moving film being used to depict things where movement is the essence of the subject. For example, industrial processes, men at work, historical subjects, the growth of plants etc., will need the moving picture but views of static things such as diagrams, maps, etc., are clearly fit subjects for "stills."

This development of the old magic lantern in a convenient and compact form will be welcomed by teachers who can build up libraries of filmstrips directly illustrative of their work and including indeed, many of their own photographs or of pictures which may not be available generally to schools.

ECCENTRICITIES OF ENGLISH SPELLING

By SRI S. SUBRAMANIA IYER, B.A., L.T. Retired Headmaster and Author, Madras.

WHAT pronunciation is to spoken English, spelling is to written. English pronunciation and English spelling are not governed by rules or laws; they have their idiosyncrasies with which every speaker and writer of English has to familiarize himself. For instance, the words 'site', 'sight', and 'cite', which are pronounced alike are spelt differently. So are the words *sow*, *sew*, and *so*; *one* and *won*; *know* and *no*; *mite* and *might*; *why*, *weigh* and *why*.

Wrong spelling is in many cases due to wrong pronunciation; 'suite' in a suite of rooms or furniture, which is mispronounced

by many like *suit* should be pronounced like *sweet*. *Neigh* (cry of a horse) is confused with the word *may*, as they are pronounced alike; in such instances the context alone will serve as a safe guide. Examples of this class may be multiplied *ad libitum*; *prey* and *pray*; *queue*, *kew*, and *cue*; *quay* and *key*; *steal* and *steel*, and so on and so forth.

A knowledge of correct accentuation suggests the right word and spelling—advantages (*n*), advantageous (*advanta-* *adjus*); profited and benefited, in both of which words the syllable containing *t* is

ECCENTRICITIES OF ENGLISH SPELLING

not accented and the *t* is therefore not doubled. *Quite* and *quiet* are liable to confusion through ignorance of their correct pronunciation. While *quiet* is a disyllable, *quite* is monosyllabic. The *t* in the following words is doubled because the accent falls on the syllable ending in it; *remit*, *remitted*; *acquit*, *acquitted*.

And for the same reason we have preferred, referred, and debarred. The *t* following a long vowel is not doubled—*requited*: *Seat*, seated (not seattet): *t* is not doubled for it is preceded a long vowel sound. In the case however of *t* preceded by a short vowel sound, the *t* is doubled (fitting, sitting.)

Some examples of words similarly spelt but used in different senses are fair, fare, bear, bow, row, sow.

On the other hand some examples may be given of words differently spelt but pronounced alike; *deign* and *Dane*, *demesne* and *demean*, *rite* and *write*, *mite* and *might*, *guilt* and *gilt*.

We pronounce the following without sounding the italicised letters in them:—*damn*, *indict*, *lamb*, *wrestle*, *honour*, *hour*, *talk*, *peasant*, *dough*, *whole*, *know*, *yacht*, *vehicle*. On the other hand an additional sound is imported into the following words:—*finger* (*finger*), *linger* (*linger*) *mongoose* (*mu'nggoos*), *congress* (*ko'nggres*). The additional sound of *g* is not heard in *singer* and *slangy* where the italicised suffixes are added to the words.

The spellings of the following words may be studied with interest, and reasons found for variation:—

Eco'nomy (not *economy*), *egre'gious* (not *eggregious*) but *ag'gregate* (not, *agregate*), *mid'dle* (not, *middle*), *oppose* (not *opose*), *beginning*.

In *egregious* the accent is on the second syllable, and not on the first; hence the non-doubling of *g*, whereas in *aggregate* the accent falls on the first and the *g* is doubled. 'Economy' is direct from Greek *oikos* (= house). In *accept* (*ad + cept*)

affront (*ad + front*), *aggrieve* (*ad + grieve*), the prefixes *ac*, *af* and *ag* are but variations of the Latin prefix *ad*.

We should take care not to be misled by pronunciation into incorrect spelling. We say *kissed* as *kist*; *topped* as *topt* and should find out why we do so. The reason is sufficiently clear; the voiceless sound of *s* and *p* changes the voiced sound of *d* into its corresponding voiceless.

Some people, (why many) mispell *all right*, two separate words, as *alright*, of course on a false analogy with *also* (all so), and *altogether* (all together). In these words one of the *l*'s is missing. But *all right* should be written separately and never *alright*; which spelling may be put down to bad taste and is a vulgarism.

Anyone and *someone* are compound words and as such are personal nouns (= any person or some person). "You may give me any one book"; here *any* and *one* are separate words and should be written separately.

Some people pronounce *loose* and *lose* similarly without knowing that *s* in the

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former is voiceless and that in the latter it is voiced (looz).

Students misspell *tuition* as *tution* owing to the wrong notion that it is a disyllable. It must be noted that *tuition* and *fruition* are trisyllables; *tuioo-shon* and *fr-u-shun*.

Mileage and *ninth* are the correct spelling forms of *mile+age* and *nine+th*: *five+th* = *fifth* and *ninety+th* = *ninetieth*. In the former, when the suffix *th* is added, *v* becomes *f* and *e* drops out and in the latter *y* becomes *ie*. The rule though not of universal applicability may serve as a rule of thumb.

Students are therefore advised to learn and acquire the correct spelling of words by frequent writing to dictation or transcribing passages they read, and acquainting themselves with the etymology of words whose spelling is very confusing and misleading.

Of 'dependent' and 'dependant' the latter is a noun and the former an adjective. But *errant*, *attendant* (also a noun) *evident* etc., are adjectives. The suffix *or* in the following is a personal suffix:—Vendor, Inspector, rector, creditor, debtor, visitor. This suffix is liable to be confused with *er*, another personal suffix in seller, lender, doer, teller, winner, loser, lover. From the above a rough-and-ready rule may be formulated; that *or* is a personal noun suffix added to words of Latin origin and *er* to those of Saxon origin.

The writer does not want to dogmatise on a ticklish subject like pronunciation or

spelling. That the spelling of English words is unreliable and not governed by any rule or law is admitted and as a result of this a phonetic system i.e., a way of writing developed so as to represent the sounds of letters in a uniform manner has been attempted and adopted. Variations of sounds are represented suitably by means of conventional symbols.

Students must also adopt the recognised spelling forms of abbreviations of English words: Sept. (September), Jan. (January), hon. (honorary) Dr. (Doctor). Rev. (Reverend). They should not invent their own abbreviations lest they should mystify the reader. Mr. is the abbreviation of Mister, and Miss that of Mistress and Mrs. is the abbreviated form of the feminine of Master or Mistress and is used of a married woman as distinguished from *Miss* which is used of an unmarried one. Here is a nice question for all of us to ponder—Why doesn't the Oxford Dictionary have a dot after the abbreviation Mr. as in the case of some others like Jan. (January)? The placing or omitting of a dot in these instances seems to be based on the principle that when both the initial and the final letter of a word are expressed in the abbreviation, a dot or full stop is not required, but when the initial letter and an intermediate letter are found in the abbreviation, a full stop should be inserted. It should be noted however that this rule is not followed by many writers and printers. Those who wish to follow it are quite welcome to do so.

UNMATTa RAGHAVA PREKSHANAKAM

By SRI M. B. NARASIMHA IYENGAR, M.Sc. Advocate, Bangalore City.

TWO plays being the same name of *Unmatta-Raghava Prekshanakam* have been published so far. One of them is said to have been composed by Virupaksha, King of Vijayanagara. In the introductory scene, it is said that this Virupaksha had conquered South India and Ceylon. Here

in the early parts of the play, the story closely resembles that of the *Ramayana* of Valmiki. Sri Rama kills all the *Rakshasas* stationed at Panchavati. Maricha appears on the scene in the form of a golden deer. Rama and Lakshmana follow him. Ultimately he is killed. But there is no mention

of Ravana's abduction of Sita. But when Rama and Lakshmana return to the hermitage, they find that Sita is not there. Then the author describes the *Unmada-avastha* of Rama. Rama asks the wind and the cuckoos etc., the whereabouts of Sita. Perhaps here our author closely follows what is stated in the sixtythird canto of the *Aranyakanda* of the *Ramayana*. Meanwhile, Lakshmana leaves Rama there. He goes to Pampa and slays Valin. Then he fights a bloody war with Ravana and slays him in battle. Then he receives Sita, brings her back, and restores her to Rama.

The other one is said to be composed by Bhaskara Kavi. It is not possible to state the exact date of this author. This work is published in the 'Kavyamala' series of the Nirnaya Sagara Press, Bombay. The manuscript, it is said, was copied by one Subramanya Sastri of Palamner, Tanjore District. It is not improbable that this Subramanya Sastri might himself have been the author of this work. Here also there is the graphic description of the *Unmada-avastha* of Rama and it follows closely what is stated in the sixty-third canto of the *Aranyakanda* of the *Ramayana*. But the story is different from the epic original. Sita enters a flower garden and begins collecting flowers. Meanwhile, a golden deer appears on the scene. Rama follows it, captures it and brings it to the hermitage. He finds that Sita is not in the hermitage. Then the mental agony of Rama is described in detail. Sita had unknowingly entered the hermitage of Durvasas, and had assumed the form of a deer. It is said that when once Durvasas was doing penance, an *apsaras*, by name Harini, tried to disturb him. Durvasas got angry and seems to have said that any woman, that enters his hermitage knowingly or unknowingly, should forthwith assume the form of the deer. Agastya knew of the mental agony of Rama. He appears on the scene and restores Sita to her original state. Then he brings her to the hermitage and hands her over to Rama.

Bhaskara's work can safely be said to be an improvement on that composed by Virupaksha. If we read the two plays, we shall find that Virupaksha had no regard for the time factor. But Bhaskara's work appears to be a consistent whole. It can safely be said that when Bhaskara composed his work, he must have had before him the play written by Virupaksha.

Both the plays are called *prekshanakams*. The earlier writers on dramaturgy mention only ten varieties of drama. But there is no mention of the *prekshanakam*. In the *Sringara Prakasa* and *Bhava Prakasa* of Saradatanaya, there is a description of this kind of play. In these plays, generally there is the absence of *garbha sandhi* and *Vimarsa-sandhi*. But here the author can exhibit his talent in describing the *vipralamba sringara*. But there is no originality in both the authors. They have copied copiously from the *Ramayana*.

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NEW DEAL IN FILMS FOR SCHOOLS

(Contributed)

LOCAL Education Authorities in England have, in the past, had to face difficult and complex problems in order to develop the use of visual aids in their areas, and the whole supply and distribution of educational films has been confused and unsatisfactory. Commercial producers would not make educational films until there were more projectors in schools to guarantee a market, while schools and Local Education Authorities would not instal equipment unless they were assured of a reasonable supply of suitable films.

Now, for the first time, teachers will have a direct say in what films and other aids they want through the National Committee for Visual Aids in Education, which represents Local Education Authorities and teachers. The National Committee has submitted to the Production Committee of the Ministry of Education, an interim programme of over 130 projects, mainly films, which were chosen from a mass of ideas put forward by teachers.

INTERIM PROGRAMME

The National Committee, who plan visual education policy, hope to stimulate still more interest by publishing some of the "shooting" scripts, not only as a form of guidance in ideas to the teachers, but also to encourage them to write complete scripts themselves.

The interim programme was compiled by 5 panels set up by the National Committee; a long term programme will shortly be considered. The film subjects recommended for immediate use are directed specifically at different age groups; infants (5-7 years); juniors (7-11 years); and children 11.13, 13.15, and those above 15 years. Silent as well as sound pictures are recommended, and it is intended that all the pictures for infants, as well as some for other age groups, will be in colour. The films range from simple biological types for infants, telling

of birds and animals etc., to subjects such as social studies, the home, the development of the theatre and play-acting in schools, and the structure of international relations for the over 15 age group.

Some of the films will be experimental and will be concerned with the teaching of poetry; a series with school pupils as actors using "A Midsummer Night's Dream" to demonstrate the fundamental principles of play-acting; a picture of some simple aspect of mathematics to test the application of the film to the teaching of mathematics. A complete visual unit, consisting of films, film-strips, slides and other visual material is planned for instructing teachers on the use of these aids in education.

SALES AND SERVICING FACILITIES

Local Education Authorities will eventually be able to buy or hire these films through a central agency, the establishment of which is now under consideration by the Ministry of Education. It has been recommended that the agency consist of representatives of Local Education Authorities, teachers, film producers and the Government Departments concerned, and it will be in the nature of a sales organisation, providing library, viewing and servicing facilities.

Steps are being taken to prevent the demands for visual aid equipment outstripping production. A survey made in 1940 showed that of the 30,000 schools in England and Wales, only 1,400 had projectors, 400 having sound equipment and the rest silent.

It is being arranged that many hundreds of film projectors and other forms of visual aid apparatus will be made available this year, and the National Committee is preparing recommendations for issue to Local Education Authorities to assist them in formulating their visual aid plans. The

Ministry, through the Production Committee, is co-operating in advising Local Education Authorities and other educational

users on the merits of cine projectors and other types of visual equipment as they become available.

THE B.B.C.'S EDUCATIONAL BROADCASTS TO INDIA

BY SRI T. PANDE, INDIAN AUDIENCE RESEARCH OFFICER, B.B.C. *New Delhi Office.*

EARLY last year in Calcutta I was talking to a young Bengali student who was very curious about B.B.C.'s broadcasts to India and wanted to know what exactly was the purpose of the transmission which lasts well over two hours every night and is especially directed to this country. Like so many students he had not cared to listen to the programmes, but had only heard of them, and like many others he had also presumed that broadcasts emanating from a British broadcasting organisation could only be propaganda—propaganda subtle but sure, carefully planned and designed to maintain the Imperialist hold on India.

Now, I have come across such instances many a time before during the course of my visit to educational institutions in various parts of the country, but this Bengali young man proved a really hard nut, and not till I had actually persuaded him to accompany me to a friend's house and listen to the programmes for himself (which he agreed to do not without considerable hesitation) did he appreciate the nature of the broadcasts and the purpose of the Service.

It happened to be a Sunday and the programme that evening was Brains Trust. I then suggested to him that he should listen to 'Science & Scientists,' which he did and being himself a student of science was intensely interested in the series. He did not need any more proof to convince him about the educational and instructive nature of the Eastern Service transmissions.

The nature of our broadcasts has by now been fairly widely published and most schools of thought in India are inclined to appreciate and welcome the BBC's contribu-

tion in the field of cultural advancement in this country.

The general purpose behind the transmissions from London, (which are specially beamed to this country at the most favourable time for listeners here) is, of course, the interpretation of Western culture and civilisation—its sciences and arts and its outlook on the various problems of life in order to create a cultural link between the peoples of the two countries, and help them to get closer to each other in the larger interests of goodwill and world peace. It should not be inappropriate to call it a contribution to the sphere of education in this country.

Perhaps I should mention by way of illustration a few items constituting the main educational element from the current schedule of the Eastern Service.....

The first on the list comes Science Survey, a weekly series of talks and discussions on scientific subjects in which leading British scientists describe to listeners—to the ordinary man in the street as well as to the student—what is happening in the world of science. Recently, in this series, we told listeners all about atomic energy, and talks ranging from subjects like 'curare', the South American arrow poison, to plant hormones, have been broadcast in the programme. One point worth mentioning about these programmes is that they are put across in a language easily understandable to the laymen.

Recently we broadcast an interesting series called 'The Study of Mankind.' The talks were by well known anthropologists who told of a number of discoveries, which

were made during the war years and were unknown to the general people owing to war conditions.

The 'Written Word' which is scheduled to come on the air again early in July next has been liked by student listeners. In this series we present the famous figures of English literature and the work of each author is reviewed by a recognised leading authority. There is 'Book of Verse', also for student listeners, a weekly series on the works of Shakespeare by eminent literary and dramatic critics.

Of special interest to adult educationists should be our weekly talks entitled 'Labour and Industry'. These deal with industrial and labour relations in their widest sense. A regular speaker in this series at the moment is Herbert Hodge, the London taxi-driver, who has broadcast many times as the representative of the working man. Incidentally, Hodge was educated at elementary schools, started work at 15 as garage hand and has since been a lumber-jack and forest fire-fighter, a shop assistant, a journalist and playwright and Canadian-Pacific train assistant, has driven buses as well as taxis and has written two books on his experience as a London taxi-driver.

Specially addressed to women in this country is our weekly 'Women's Magazine'. It is in the nature of a sociological programme and includes (i) talks on 'Health & Welfare' in which we have been reviewing the omissions and mistakes made in this particular field in Britain during the last fifty years, and have tried to elaborate on what has been learned from experience and what may now be considered to be practicable. The subjects included are pre-natal and ante-natal clinics, child welfare, welfare factories, special branches of hospital work and so on; (ii) a series called 'New Careers for Women' in which we bring to the microphone women following a career only recently opened to members of their sex; (iii) talks by well known contemporary women writers and women in film industry.

Of special interest to educationists and university students has been 'Serious Argu-

ment', a programme dealing with controversial topics of current interest. We try to make these weekly discussions topical and upto the minute, and persons of the repute of Julian Huxley, Dr. C.E.M. Joad, Tom Driberg and Lord Vansittart have been ventilating their views on sociological, literary and general topics of permanent interest.

For students of world affairs we have recently introduced a weekly series called 'Foreign Despatch' in which we are trying to give listeners more background information, both historical and descriptive, about countries and places in news. These are given by our correspondents on the spot.

We have taken particular care to provide room for programmes of special interest to school-age boys and girls. Every week, on Saturday, we broadcast a programme which is specially planned and designed for English-speaking boys and girls in India. It is called 'Radio Roundabout'. In the words of the producer of this programme what we try to do is 'to hold up a mirror not only to reflect the English scene but the world scene as well.' Like their counterparts in other parts of the world, girls and boys in India are curious to know things and we invite them to send questions. What for example, would they like to know about plant and animal life, about the moon and stars, about the world in which we live, about what keeps them fit and well and healthy, and how they can avoid being ill. In most schools in Britain there is a great deal of discussion going on most of the time. Once a month in 'Radio Roundabout' we do a special programme entitled 'Time of Talk' and in it boys and girls in India can hear a debate on some subject, and it comes to them straight from a school somewhere in Britain. We have recently introduced a series on Scouting which will cover the activities of the Boys Scouts and Girl Guides in U.K. and will also contain talks on subjects of interest to listeners in this country.

For senior students planning to go abroad for studies we have Questions in the Air when, in the words of the producer of

the programme, the 'air' for a given time each week, is put at the disposal of the Indian student. When we first introduced this programme it was designed to give the student in India an idea of England as seen through the eyes of one of his own countrymen studying in Britain. But now, in response to requests from listeners, the scope of the programme is broadening. We are now inviting questions from students in India—diverse questions covering the requirements of different individuals. For instance, we have been receiving questions ranging from television to women's rights in Britain, about sport and family relationships, about the work in fields and in factories. A student asked the other day as to why the English are so formal and whether their frequent 'please's' and 'thank-you's' are hypocritical. The idea behind this programme is to help the Indian student to know in advance something about the country he is planning to visit so that he does not arrive there with prejudices and fixed ideas which prove unjustified and incorrect.

For the alert receptive listener, who demands a more 'intellectual' fare the Eastern Service broadcasts every week extracts from the new cultural service of the BBC, The Third Programme. This item in the Eastern Service has been attracting considerably receptive and appreciative audiences, specially in the south. Mention must also be made of 'The Kingdom of the Mind' series—talks on Western philosophical thought, in which persons of the intellectual eminence of Sir S. Radhakrishnan, Dr. C.E.M. Joad and Lord Lindsay, Master of Balliol College, Oxford, have been speaking.

The dramatic interpretation of Western culture and thought also finds its place in the Eastern Service and once a week the first hour of the Service is devoted to plays and features which cover a wide variety of subjects ranging from the history of anaesthetics to the present day English school system. Apart from works of contemporary writers, radio adaptations of

novels by such well-known authors as Charles Dickens, John Galsworthy, and Anthony Trollope are brought on the air.

The BBC is planning to break new ground by introducing to India and the world at large a project with some such title as the University of the Air. This is to provide something in the nature of a course of daily lectures. It is intended to include in the series the full range of subjects from the curricula of the different universities, the idea being to provide, as far as possible, a replacement of direct teaching in the universities. This programme has been specially designed in view of the fact that a number of people today fail to secure admission in the universities due to the postwar rush of servicemen whose studies had been interrupted by the war and who, naturally, get preference over others.

Space does not allow me to write in detail about the Indian language counterparts of these English transmissions. But in Indian languages, too, the content of the programmes is very largely educational and we are guided by the cultural needs and requirements of our audience in different parts of the country. Of special interest for adult education are the programmes 'Sunne Ki Baten' and 'Mehfil'.

'Sunne Ki Baten' is a question-and-answer series and is done on the lines of the well known Brains Trust, the listeners themselves sending questions on a diversity of the subjects, answers to which are broadcast from scripts written by recognised authorities.

'Mehfil' is a weekly magazine programme and among other items of general interest it includes a series of discussions about village life in Britain, in which we bring to the microphone each week F.L. Brayne, already well known in the Punjab for his work on rural reconstruction. Some of these discussions are recorded and rebroadcast by Air and are being listened to and appreciated by a considerable audience comprising both the rural and urban sections of the population.

There is a 'Children's Programme' in Hindustani, every week, which has been going on for well over 4 years and brings us our largest 'fan mail.' There are weekly half-hour magazine programmes in Bengali and Marathi, which contain talks and features and cover a wide variety of subjects, educational and informative.

I have only dealt with the Eastern Service so far, which begins at 7 every evening and closes down at 10.15. But we have another overseas transmission, the General Overseas Service, which is also beamed to this country and can be heard here from 6-30 a.m. (Indian Standard Time) to 10-30 p.m. One of the programmes in it which has elicited the largest reaction here is a series taken from the Forces educational broadcasts and appropriately entitled 'Plain English.' This series has

been planned primarily for the benefit of English-speaking peoples and is meant to teach them their own language and to achieve self-expression. Possibly some listeners may have heard this series, or be hearing it in India. The London Transcription Service also which is now a part of the BBC provides the various national broadcasting organisations with recorded talks and features of an instructive nature.

While a fairly big slice out of the broadcast fare provided by the BBC for its overseas listeners is already comprised of educational and instructive items we are always open to criticism, and constructive comments and suggestions receive most careful consideration, the aim and the policy of the Corporation being to satisfy, as far as circumstances permit, the tastes and requirements of all its listeners.—*The Indian Journal of Adult Education.*

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BOOK REVIEWS

SOCIAL AND RELIGIOUS MOVEMENTS IN THE NINETEENTH CENTURY. BY PROF. C. S. SRINIVASACHARY, M.A. THE NATIONAL INFORMATION AND PUBLICATIONS, LTD., BOMBAY. PAGES 48. PRICE Re. 1.

The object of this booklet is to give the general reader a brief survey of the social and religious movements in India in the nineteenth century. The Brahmo Samaj, the Arya Samaj and the Ramakrishna-Vivekananda movement are noticed and evaluated in their proper historical setting. Theosophy also receives its share of attention. Religious and social reforms among the Parsis and the Muslims are also dealt with. Under the heading, "Other Reforms" information is given on a number of matters which the average general reader is unlikely to know—the abolition of slavery in India, the application of English methods of juristical interpretation to Hindu and Muhammadan law, and the elevation of primitive tribes. A comprehensive biblio-

graphy directs the interested reader to the sources of additional information, if he is anxious to pursue his enquires further. Altogether, we have in this book a wealth of little known but exceedingly valuable information on our recent history which we should all do well to know. How many of us know for instance that India narrowly escaped evolving a national language at the beginning of the nineteenth century? Let Prof. Srinivasachary tell the story in three or four brief sentences: "Lord Wellesley entertained the idea of developing a Hindustani prose which should serve as the official language and of fostering its development with this view. Dr. John Gilchrist, Principal of Fort William College, who had encouraged this view, desired to make it the medium of communication between the English officials and the people. Yusuf Ali says: 'If Persian had been abandoned then instead of in 1839 as the official language, it is possible that Urdu could have taken its place, and we should have to day a verna-

cular language of common intercourse throughout India.' By 1839 the idea of vernaculars had been provincialised." Discoveries of this kind await the reader even in the fortyeight pages of this booklet.

ON EDUCATION BY MULK RAJ ANAND.
HIND KITABS LTD., PUBLISHERS, BOMBAY.
PAGES 59. PRICE Re. 1-8.

Mulk Raj Anand is one of the few creative writers we have among us to-day, and it is not surprising that he should have thought it necessary to invade the field of education, usually under the monopolistic control of politicians and experts of various kinds. For we are living in unusual times, when every thinking individual feels called upon to do his little bit to save the world from disaster.

Mr. Anand poses his problem thus: "Now, what is the kind of education that might help the human race to survive and continue, with some degree of biological and human efficiency, against the unharnessed forces of nature and man's bestiality?" And his answer is thus succinctly summed up: "Every educationist who has given deep thought to the problem of the 20th century knows that the ideal of education is freedom, freedom from fear, freedom from hatred and perversion, that is to say, the freedom which helps the mind to be free and to live amicably in any social group. If this is true, then it is clear textbooks and grammar are not enough, but that education has to be construed in terms of the methods by which the creative urges, or the potential dynamics, in every child are recognised and through which these creative urges are allowed to express themselves." The whole book is an attempt to apply this idea to the history of education in modern India. In particular, he urges that the primacy of art should be accepted and that the teaching of arts and crafts should form an important part of educational training in our schools.

With much that Mr. Anand has to say, educationists will be in general agreement. But naturally enough there are controversial issues raised. Discipline is neither so wicked nor so old-fashioned as Mr. Anand

would have us believe. Nor is it a deadly sin for young men to respect their elders or to defer to their opinions. The damning of our intelligentsia as "the most bitter, the most frustrated and small-minded" may be good tactics on the part of a Socratic gadfly, but is hardly the full truth of the matter. And to students of educational history, Mr. Anand's particular nostrum seems neither so new nor so revolutionary in its possibilities. But this is not to deny that Mr. Anand has written a stimulating book in the incisive and brilliant style he wields. It will jerk many people out of their self-complacency and provoke them to take stock of their ideas. And that is all to the good. But let not our Ministers of Education forget that Mr. Anand's prescription is only one among many.

The value of this booklet is enhanced by a number of coloured plates, reproducing pictures drawn by children. There is an appendix of "Notes on Child Art" by Pulinbehari Dutt. These serve to illustrate Mr. Anand's analysis of the essentials of 'child nature' on which the new system of education has to be founded.

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TEACHING IN POST-WAR SCHOOLS: EDITED BY K. N. SRIVASTAVA. THE OXFORD UNIVERSITY PRESS. PAGES 99. PRICE Re. 1-8.

This book is a symposium on the various aspects of post-war education in India. The learned editor declares that it had its origin in a desire to discover by experimentation whether the actual methods of teaching different subjects could develop social intelligence and international understanding in school children. With this end in view, the teaching of history, civics, geography, religion, mathematics, science, English, art and the mother-tongue are discussed by several distinguished educationists. Mr. K.G. Saiyidain stresses the need for developing an international outlook in the teaching of history. In a stimulating essay by Mr. Srivastava, "geography has been viewed as a subject which enables us to understand other countries and to have sympathy with other people." Dr. Beni Prasad urges that civics should deepen the interest in social phenomena and teach us a sense of world community. Professor Atreya has a great deal of value to teach us in his paper on the place of religion in the educational curriculum. His views are coloured to some extent by theosophical tenets, but are also at the same time catholic enough to outline a plan for the teaching of the essential basis of all religions. The paper on the teaching of English suffers somewhat from the fact that the whole book was ready for publication in 1945. Mr. Bhava quite rightly and properly concerns himself with the de-thronement of English from the political supremacy that it had acquired. He suggests that English should be taught less as a literature and more as a medium of international contacts. And English teaching can effectively take root only on a solid edifice of the teaching of the mother-tongue. A radical revision of the method of teaching elementary mathematics is advocated by Sir Zia Uddin Ahmed. He wants that arithmetic, algebra, geometry and trigonometry should be viewed together as an integral whole, and taught in such a manner as to make their interdependence clear. Mr. M. J. Mukherjee has a number of

valuable suggestions to make to bring the teaching of science in this country in line with the teaching elsewhere in the world. Mr. Ryburn makes concrete proposals to use the mother-tongue for spreading the gospel of internationalism. The universal language of art, as a means of strengthening peace on earth and goodwill among men, forms the theme of an interesting essay by Miss Palin. The learned editor sums up in an introduction, and Sir S. Radhakrishnan has contributed a Foreword.

THE STORY OF ANCIENT INDIA BY DR. B.G. GOKHALE, ST. XAVIER'S COLLEGE, BOMBAY. PADMAJA PUBLICATIONS. (1947) BARODA RS. 3-8 PP. 218.

The political and cultural history of Ancient India has been interestingly told in this narrative which begins with cave-men and a short account of the Indus civilisation, which, so far as we now know, must await the discovery of firmer clues for a knowledge of its final abandonment. The advance of Upanishadic thought over the speculations of the Vedas is held to signify not a continuation, but a revolutionary departure from the latter. The Buddha is pictured as having been, in essence, a rational thinker and confident reformer. And the logical sequence of the disappearance of the petty states during and after Alexander's invasion, was the glory of the great Mauryas and the still greater Guptas. Bhasa is held cautiously as being a pro-Gupta dramatist; and Asvaghosha's influence on Kalidasa is stressed. The *Gita* and its message, the methodology of the six orthodox *Darsanas*, the art of Ajanta—these are described as the expression of the Golden Age of the Guptas. The Chalukya challenge to the north under Pulakesin, is coupled with the account of the Pallava glory. The chapter entitled "In Lighter Moments" gives glimpses of social life. In the end the author analyses the principal elements in the composite make-up of the ancient Indians, and the attempt to synthesize activism and passivism, as well as the diffusive aspect of Indian culture. The narrative is feelingly told and deserves to be free from the errors in spelling that have occurred in printing.

SHIVAJI. BY S. R. SHARMA.

THE BAHMANI KINGDOM. BY A. R. SHERWANI.

THE NORTH-WEST FRONTIER (1843-1947). BY DHARM PAL. 48 PP. EACH.

THE NATIONAL INFORMATION AND PUBLICATIONS LTD., BOMBAY

THIS series of handbooks is intended for the common man, being couched in popular form and language and avoiding technical language, references and foot-notes and at the same time covering the main aspects of every important phase and stage in the span of Indian History.

Professor S. R. Sharma of Poona who has some useful and critical work to his credit portrays, in its special significance, at the present day, the achievement of Shivaji. He resolves the complex and complicated forces of the milieu in which the great Maratha leader had to work; when the European powers in the country were but small and indifferent opportunists and the main obstacles in the way of Maratha Swaraj were the Adil Shah and the Great Mughal. The climax of his coronation as Chatrapati at Raigad in 1674, was, however, but the culmination of his mission in life; and his uniqueness rests as much on his capacity for reconstruction as on his acquisition of freedom. Thus he was pre-eminently an "organizer of freedom", and he roused Maratha national and imperial consciousness into moral and fervid fervour. The writer also discusses how far Shivaji can be deemed to have been a superman.

Prof. Sherwani has delved deep into the history of Mediaeval Deccan; and he has given here a fairly detailed account of the Bahmani rulers of Gulbarga and Bidar down to the disruption of the Sultanate in the early years of the sixteenth century. They were among the first Indian powers to benefit by the discovery of gunpowder and to suit their military architecture to the needs of the new warfare with artillery. Occasionally, the rulers befriended the

Hindu elements of the population and employed Brahmans and others in positions of trust and responsibility. The Deccani-Afaq factions proved to be the cause of the final dismemberment of the empire. The disturbed and rough lives of the Sultans, the never-ceasing wars with Vijayanagar, in Telingana, Gujarat and Malwa and the brilliance of the sunset glory under Khwaja Mahmad Gawan—are all portrayed here, though with a quantity of wearisome, though relevant detail. The Bahmanis tried to march to Nellore and Kanchi the southernmost point reached by their arms in 1481, but only for a moment.

Mr. Dharm Pal ably discusses the oscillations of the British Government's policy of securing a suitable frontier between the occupation of the foot of the border hills, the receding to the line of the Indus or the advance upto the Hindu Kush line; and also the zigzag course of the Russian advance into Central Asia and its kaleidoscopic effect on the character and method of Anglo-Afghan relations. Then follows a

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fairly balanced examination of the various Schools of policy, that emerged as well as of the relations of the British Government with the frontier tribes, embodying the Sandeman system, adopted in Baluchistan and the Close-Border system, with their differing methods in coercion—cum—conciliation. The Curzon system which stood the test of time is also surveyed and the subsequent alterations the system has undergone are also outlined on a meagre scale.

OXFORD PAMPHLETS ON INDIAN AFFAIRS.
No. 41—INDIAN PARTIES AND POLITICS
BY S. NATARAJAN PP. 32.

No. 40—AUSTRALIA AND NEW ZEALAND BY
T.K. CRITCHLEY PP. 32.

Mr. Natarajan, Editor of *The Free Press Journal*, Bombay, regrets at the outset the inopportunity of the present time for assessing the programmes and policies of the existing Indian parties. The policy of the Congress during the last three decades has been "to cushion the shocks of modern movements in the socio-economic field", and

consequently to claim a fiduciary trusteeship in every sphere of conflict. It has accepted the principle of linguistic provinces and the ideal of provincial autonomy. Its leftist elements and periodical retirement into opposition and non-co-operation have produced great complications. The Muslim League has insisted, it is claimed, on a clear-cut break with British authority. It has till now done little beyond waiting for the mistakes of others. The Mahasabha and the two organisations of the Scheduled Castes have necessarily communal outlooks and helped the growth of contracting loyalties. The Provincial parties and the States Peoples' organisations aim at small reforms generally and usually suffer from localised inspiration. How the new Free Status of India will react on these is to be seen.

Mr. Critchley went over to India in 1944 as the head of the Research Section of the Far Eastern Bureau of the British Ministry of Information; he gives a clear account of the two Dominions with which India's trade-relations are getting intimate. A bright future is held out in prospect for both these Dominions.

NEWS AND NOTES

PROFESSOR M.S. SABHESAN'S SHASHTI-ABDAPURTHI COMMEMORATION

TO felicitate Sri M. S. Sabhesan on the occasion of his Shashti-abdapurthi in February 1948, a committee has been formed with Upadhyaya Sangha Karya Praveena Sri S. K. Yegnarayana Iyer as President, Professor R. Krishnamurti Iyer as Vice-President, Sri V. S. Gopalakrishna Iyer, Headmaster, Sir M.Ct. Muthia Chettiar High School, as Treasurer and Sri S. Natarajan as Secretary.

The Committee is planning a commemoration volume and it is proposed that the volume should contain Greetings and Appreciations of his work by his numerous

friends. Old Boys of Professor Sabhesan and his colleagues in his many spheres of activities are requested to send their Greetings and Felicitations to the Secretary, Professor Sabhesan's Shasti-abdapurthi Committee, 520, High Road, Triplicane, so as to reach him not later than the 1st December 1947.

Donations will be thankfully received. The commemoration volume will be priced at Rs. 5 per copy for individuals and at Rs. 10 per copy for associations and institutions. Besides these appreciations the volume will contain Select Speeches and Writings of Professor Sabhesan and Valuable Articles on Education.

EDITORIAL NOTES

THE Indonesian Republic has planned a new entirely reconstructed system of education which we learn from the bulletin issued by the Indonesian Information Service is to aim at educating children to become useful citizens of the Republic and to be constantly ready to give their strength and knowledge to the State.

The basic aim will be to inculcate the principles of democracy, freedom, social justice, humanity and co operation, and beside these things, it is necessary to teach the facts relating to their own nation, national conscience, appreciation of their religion, faithfulness to their culture, and also their particular economic and national needs.

Education will be divided into four levels; elementary, secondary, industrial and university.

In the elementary schools, children will be taught the principles of physical science as well as the normal subjects (reading, writing and arithmetic), so that they will know something of the world around them.

Secondary education will be a continuation and a specialisation of elementary education, while the higher classes will concentrate on preparation for the University. Industrial schools will be designed to educate specialists and engineers for Government enterprises.

The Universities will provide research workers and heads of departments.

The period of attendance at each type of school is as follows:

1. Elementary	6 Years,
2. Secondary	3-6 Years,
3. Industrial	3-6 Years.
4. University	4-6 Years.

This organisation of education throughout the country will be the responsibility of both the Central and the Provincial Governments.

The degree of the responsibility of each will be arranged as soon as possible.

From past experience it is known that the organisation of the Elementary Schools can be left to the Provincial Governments.

Another point which must be settled by mutual agreement is the amount of control which each is to have. This will depend upon the amount of power which is granted to the Central Government in a future constitution.

A new idea which we commend to our readers is the stress that is laid upon the connection between Geography and Literature.

II. Geography and Literature. The function of Geography "is to train future citizens to imagine accurately the conditions of

the great World-stage and to help them to think scientifically about human problems;" and "Geographical studies stipulate to a broad vision of human life of communities, their relations to each other and various forms of their development and to give vision—an intellectual, moral and socialistic outlook on the problems of Life" This being accepted, Literature is attempted to be interjected, with effect, into Geographical studies and there is

no apology needed for stressing the concept.

"The outer aspect of the spirit, human and natural, the innate desire to know more, is veritably described in the adventurous tales of Literature. It is this spirit also, which has enormously contributed to the Literature of Geography. Can we present the pen portraits of these contributions without the aid of Literature? Can we draw the accounts of these contributions in vivid, subtle and beautiful form without Literature? Those awe-inspiring summits of Himalayas, wonderful waving waterfalls and, deep, dark and forested valleys of eroding rivers, milky whitish-ness of glaciers, and widely stretched plains through which play the humming notes of perennial streams, are the sweetest Literatures of Geography. Simple estimations of varying dimensions, will have no lasting effect on human-beings. Naked figures of time and space, without the colouring of fancy and imagination will be melted in zero and will be forgotten within minutes. Barren dates of temperature and rainfall will be mere dry mathematical calculations of additions and subtractions. Hence it is of prime importance that scientific abstractions should be substituted with human feelings. No branch of human activity is without a geographical influence and feeling; an emotional activity caused by the perception of the outside world, which should have prime importance in Geographical studies through both practical and imaginative Literature."

It will be remembered that in our issue for September 47, we published an

III. Educational Reform in U. P.

article entitled "Educational Reform in U. P." by 'Gautama.' It criticised certain provisions of a new bill, which the U. P. Government were believed to be contemplating for a Board of Education in place of the existing Board of High School and Intermediate Education. Last month, a brief reply to this was published from the Personal Assistant to the Hon'ble Minister of Education, United Provinces. It was to the effect that the article was surprising, as no bill of the kind mentioned and criticised by Mr Gautama had been sponsored by the Ministry or by anyone else to their knowledge. Our esteemed correspondent, 'Gautama', has protested strongly against our failure to pass on the reply to him in the first instance. This certainly is against well understood conventions of journalism. All that we can say is that the reply reached us at a time when it would not be practicable to send it to 'Gautama' for consideration, if it were to be published in October itself. Moreover, we thought that the reply merely disclaimed any intention on the part of the U.P. Government to proceed with a bill of the kind criticised. "Gautama" however, feels that the terms of the denial are not sufficiently full or frank. They suggest that the provisions of the new bill as reported and criticised are entirely imaginary. Press reports however gave wide currency to a bill of this sort being under consideration. How did this come to pass, if such a bill was never contemplated? Was it considered and dropped? This requires to be cleared up promptly.



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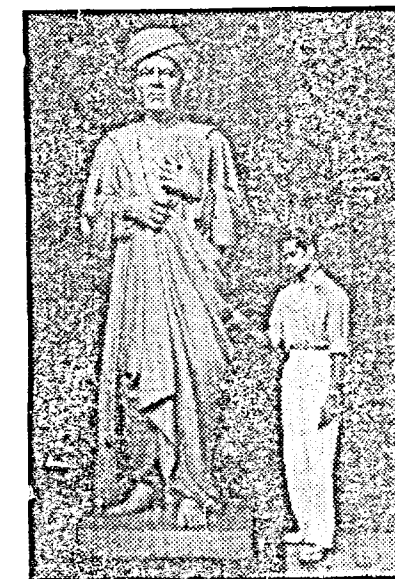
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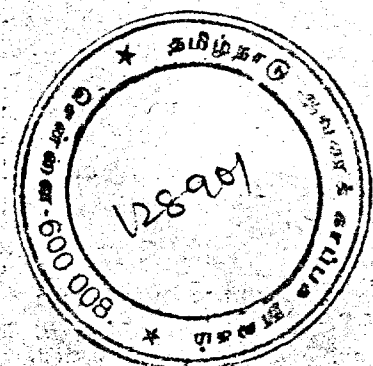
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Printed by C. Krishnamoorthi at the Sri Ramakrishna Printing Works, 19-B, Woods Road,
and published by M. R. Sampatkumaran, M.A., 14/A, Sunkuwar St., Triplicane, Madras
Hon. Editor : Dewan Bahadur Sri C. S. Srinivasachari, M.A.