A

MEMORANDUM

ON

OUR VERNACULARS,

AS MEDIA OF ELEMENTARY INSTRUCTION;

AND

THE DEVELOPMENT OF VERNACULAR LITERATURE,

WITH SPECIAL REFERENCE TO TECHNICAL EDUCATION.

BY

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Chapter I.

PRELIMINARY.

First let the mother-tongue be studied, and teach everything through the mother-tongue.—*Quick.*

All nations should be taught in their own language wherein they were born.—*Comenius.*

Our best understanding is in our natural tongue, and all our foreign learning is applied to our use by means of our own.—*Emperor Justinian.*

The wise and learned nations among the ancients made it part of their education to cultivate their own tongue.—*Locke.*

All the praise that is bestowed on the dead languages as a means of culture applies with double force to the mother-tongue, which might be more fitly called the language mother.—*Richter.*

This Memorandum does not seek a revival of the late controversies about the Vernaculars.

It may perhaps be as well to explain at the outset that this memorandum in no way seeks a revival of the interesting controversies through which we have passed of late in connection with our vernacular languages. What has been hitherto aimed at is to influence the aciton of the Bombay University in one shape or another as a necessary factor in favour of promoting the sacred cause of our vernaculars. No such remedial measure is proposed in the following pages; the University system,

as it exists at present, has been left intact; what is here suggested is improvement in the course of studies leading up to the Matriculation examination, and in other matters which in no way touch the domain of our *Alma Mater*. The objects to be secured were thus roughly enunciated by me at one of our Aryan gatherings held in Bombay under my presidency. "I avail myself of this opportunity to suggest, also, that the same Committee might consider another question which is intimately connected with the educational progress of our youths generally. . . . I refer to the suggestion, which, originating with experienced scholars and meeting with increasing advocacy, now seems to require careful consideration, in order to ensure a satisfactory settlement, *viz.*, whether the time has not come when a more extended use of our vernaculars, as media of imparting knowledge, may be advantageously made in the present system of education, *of course up to a certain fixed preliminary stage of progress only*, and whether the standards of instruction in our schools may not be so revised as to admit of technical knowledge being imparted to those who need it. It is thought that with the spread of education competent teachers and the requisite books also have to some extent come into existence, and, with this extra help, a revision of the national system of education, which was framed when both these agencies were wanting, might be fairly taken up. For instruction to reach the masses, the vernacular is the natural medium. It is, of course, admitted that the extent of such instruction can at best be only rudimentary, and it is never meant to interfere with that impartation of the knowledge of the English language, which has done so much good and which, to the average Indian, is, under the existing circumstances, the only available key for obtaining knowledge beyond an elementary stage. At present it takes a boy a regular course of fifteen years to become a B.A., and the question raised is, whether exactly the same quantity of knowledge and the same amount of acquaintance with the English language might not be secured in less time and with less labour by a more extended use of the vernaculars, as media of instruction, only in some respects, and up to a fixed preliminary stage alone, warranted by existing circumstances? The other question has reference to provision being made

It only suggests improvement in the school curriculum up to the Matriculation standard, and development of vernacular literature.

for obtaining greater facilities for the acquisition of technical education by our poorer classes, such as artizans, cultivators, &c., in the District schools."

2. Since giving this address, I have studied the subject more closely, and consulted friends competent to give valuable advice. As a result, the irresistible impression left on my mind is that a matter of so much importance to the real welfare of our younger generation deserves more adequate thought to be followed by due action, than it has yet received. The object of the present memorandum is to solicit this consideration and the adoption of such practical steps as may be determined upon after thorough discussion and deliberation. In the appendices has been given, arranged under different heads, the varied information collected in this connection, and occasional notes have been added in order to bring available materials into a focus. The Court of Directors' Despatch of 1854, fully accepted (1) by the Government of India, is our valued Educational Charter, and an authoritative guide that can be appealed to. Appendix A contains extracts from this document affecting the questions under consideration. Sir W. W. Hunter's Education Commission of 1882 marks a more recent stage of educational development; and its Report and the subsequent Official Reviews on educational progress being indispensable in solving problems connected with education, extracts from them have been given in Appendix B. The appendices which follow represent mostly individual opinions collected from scattered sources. It will be noticed that in some cases the views expressed emanate from noted European experts and distinguished men of Indian experience. Quotations there are which must be characterized as old, but the lapse of time is not believed to affect their force or validity. Such, briefly sketched, is the compilation placed before the public—marking a starting point in the discussion which I most earnestly invite. If the collection proves serviceable as helping on a study of the subject and lending probative force to conclusions acceptable as sound, its existence will have been amply justified.

Brief description of the appendices.

(1) "The Government of India was firmly convinced of the soundness of that policy [the one laid down in the Despatch of 1854] and had no wish to depart from the principles upon which it was based."—The Government of India Resolution of 1882 appointing Sir W. W. Hunter's Education Commission.

3. The medium of instruction or vehicle of knowledge is a point to which prominence may well be accorded. It has been the subject of much controversy; and, no doubt, materially affects our system of education in its earlier stages. That after the Entrance or Matriculation Examination, the whole of the University or Collegiate course must, under the present circumstances, be in English, is beyond question; the discussion noticed in the Report of the Education Commission and the subsequent official reviews on educational progress (Appendix B) has reference only to the course of instruction in English schools up to the Matriculation or the School Final standard. The range of that discussion is territorially extensive, including as it does within its purview all the Provinces of India. Our immediate concern, however, being with our own Presidency of Bombay, I do not propose to travel beyond it. Let us, then, bring under review the existing system here, and see whether any, and what, changes are needed. In our Presidency, a boy is eligible for admission into the Anglo-Vernacular school after he has completed the Primary Standard IV.; the exclusively Vernacular course of instruction until that stage, extending over four years. In the Anglo-Vernacular school he studies Standards I., II., and III. The study of English, as language, commences at the very outset with Standard I., but the Vernacular continues to be the medium of instruction throughout the Anglo-Vernacular school—course which extends over three years. After passing the 3rd standard, the youth is admitted into the High School, where English is studied not merely as language, but is the sole vehicle of knowledge. Standards IV., V., VI., and VII. are taught here, each standard occupying one year. Thus, after four years of successful study at the High School, a boy is fit to appear at the Matriculation or the University Entrance Examination. The questions which arise here are :—

Vehicle of knowledge up to the University Entrance stage.

The present system.

Questions for discussion, *re* the Secondary course.

(*a*) The position of English as medium of instruction.

(*b*) When should the study of English as language commence ?

(*c*) At present it takes a boy eleven years of study in three different institutions to reach the portal of the Uni-

versity. Can this period admit of reduction without sacrificing any of the advantages now available ?

So far as regards the scholastic studies of those attending English schools and acquiring a knowledge of the English language.

4. With respect to the rest of the students attending our Educational Institutions, *i.e.*, that very large class whose education does not extend beyond the vernacular standards, the important points which deserve consideration are :—

Primary education and vernacular literature.

(*d*) Has the policy, so clearly and emphatically enjoined by the Court of Directors, nearly half a century ago, in respect to the education of those coming under the generic denomination—the masses, been carried out to an extent which may be regarded as satisfactory ?

(*e*) Have our vernaculars been enriched with that adequate literature so confidently looked forward to by the framers of the Educational scheme embodied in the Despatch of 1854 ?

(*f*) If these queries cannot be answered in the affirmative, what remedies should be adopted to make up the deficiencies already existing, and to ensure better progress in future ?

We have here two distinct sets of students to deal with, first those who go in for an English Education, and 2ndly those whose education ends with the vernacular. In the case of the former, the English language is unquestionably the accepted medium of instruction for *advanced* studies ; what forms the subject of our deliberation has reference, as already stated, only to the rudimentary stages of a student's career, which, it is thought, might be facilitated by a more extended use of the vernacular than is the case at present. As regards the latter, the course of primary education would appear to need considerable revision and augmentation.

5. With these preliminary remarks, we may now proceed to a consideration of the various questions alluded to above.

Chapter II.

ENGLISH AS MEDIUM OF INSTRUCTION.

In England, where the Latin and Greek languages are considered an essential part of a polite education, all general instruction is conveyed, not in those languages, but in the vernacular of the country, and it seems difficult to assign a sufficient reason why a different principle should be acted upon here (India).—*Sir Donald Macleod*, Lieutenant Governor, Punjab.

To teach language is not to teach knowledge, in the sense that we usually understand knowledge, as History, Geography, Science, the Arts.—*Bain.*

The knowledge of things should always keep ahead of the knowledge of terms. . . . To learn the Greek phraseology for Geometry, we should first understand Geometry, by studying it through our own language, and should then read Euclid in the original.—*Bain.*

When the object is merely an elementary education, it may be most easily imparted to the natives in their own language.—*Lord Macaulay.*

The study of a variety of subjects through a very imperfectly understood foreign tongue, is bound to be a slow, a laborious, a bewildering process.—*The Reverend Dr. Mackichan.*

Vernacular the best medium of Instruction for young students.

6. It will, I hope, be readily conceded, as the result of a sound *a priori* reasoning, that in case of students of an age which cannot be called mature, and where the object of study is merely elementary knowledge, the mother-tongue is invariably (1) a far more

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(1) "By the adoption of the Vernaculars as media, a great deal of time and mental trouble will be saved, and a great deal of originality will be developed." Chintaman Hari Sohoni, Esquire; answers to questions from the Baroda Education Commission.

"The Trustees are convinced that the teaching of the non-language subjects would become more real, and could be made more rational and interesting, if native children were taught in all non-languages less from English text-books, and more through Vernacular Manuals."—Report for 1897 of the Trustees of Pachaiyappa's College at Madras. The President of the meeting at which this Report was read, the Hon'ble Mr. C. Arnold White, Advocate General, considered the above "to be a matter for serious consideration." *Vide* The Hindu of Madras, 15th October 1898.

"Is it not a marvellous bondage to become servants to one tongue, for learning's sake, the most part of our time, with loss of most time, whereas we may have the very same Treasure in our own tongue with the gain of most time?" Mulcaster's Elementarie, *vide* page 302, Essays on Educational Reformers by Robert Herbert Quick.

"Happy were our classical ancestors," says Hieronymus Wolf of Awgsburg, "who, as soon as they could read and write their mother-tongue, might at once pass to the liberal arts and the pursuit of wisdom."

satisfactory vehicle than any foreign language could possibly be. It is undeniable that communications received through the mother-tongue are most readily comprehended by young minds, and are apt to be well digested and long retained ; in fact, the mother-tongue is the natural—the purely primitive—the easiest medium which conveys ideas directly at first hand, whereas the employment of a foreign tongue must, at least at this stage, involve the necessity of translation. To an ordinary process of native simplicity, an element of difficulty is thus added (1) ; and doubts are expressed whether it is accompanied by any adequate counter-balancing advantage. Moreover, the difficulty is enhanced, where the knowledge of the foreign language concerned on the part of a learner is not sufficient for a quick understanding of what is conveyed by means of that channel. Are not beginners with our High School course placed in this predicament? A correct reply to this query presupposes an acquaintance with the various standards composing our curriculum of Elementary Instruction (in which category I include all knowledge from the Alphabet to the Matriculation or the University Entrance Examination), and therefore, even at the risk of adding to the bulk of the compilation accompanying this memorandum, I have given in Appendix (I) all the standards of our Primary, Middle and High Schools. As a rule, a boy begins the High School course at the age of 13 or 14, and even earlier. There are, it will be seen, subjects, such as English History, Mathematics, Geography, Chemistry, Astronomy, &c., in which he has received no previous instruction through the Vernacular, and which are taught

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(1) "If, therefore, the present system goes on, the time will never come when the time and energy of boys . . . will be spared from the painful acquisition of the vocabulary and idioms of a foreign language to the acquisition of facts at first hand. An English or a French or a German boy is not merely not harassed by the bristling difficulties of a foreign language . . . He has a positive advantage over his grievously handicapped brother of the East."—Professor Hensman, Kumbakonam, Madras. *Vide* Appendix (e), Paper No. 35.

"In the Grammar Schools of that country (England), Latin and Greek Grammar were invariably taught up to quite recent times by the aid of Latin Text-Books, and Latin and Greek Authors were elucidated for the use of schoolboys by Latin Notes. At the present day, juster views prevail as to the value of artificial trammels in the acquisition of knowledge, and English has altogether displaced Latin as the Vehicle of Instruction."—Sir Alfred Croft, *vide* Paper No. 3, Appendix (B).

to him exclusively by means of English text-books. The evidence of gentlemen with local experience available to us will, it is hoped, convincingly show that the present state of things is not satisfactory, and that in teaching the subjects just referred to, a more extended use might be profitably made of the Vernaculars.

Evidence of Local experts as to the unsatisfactory nature of the existing system.

7. The opinion of the Rev. Dr. Mackichan, lately Vice-Chancellor of the Bombay University, and the respected Head of Wilson College in our city, is clear from the quotation from his writings given above as one of the selected extracts which head this chapter. A reference to Appendix D, Paper No. 27, will, moreover, show that he is strongly in favour of the Vernaculars being "more largely employed in the imparting of instruction in our High Schools," and considers that the use of English "as a medium of instruction should be deferred in regard to several subjects." Mr. Ambalal Sakerlal Desai, M.A., LL.B., who was Head Master of two High Schools in Gujarat for nearly six years, and Assistant Master in one for nearly four years, has (*vide* Appendix D, Paper No. 11) objected to the present method of instruction as "quite unnatural and wasteful." In his opinion, "the student is not sufficiently advanced in his knowledge of English to grasp these subjects with the aid of English Text-Books." (1). Mr. Ambalal would use the Vernacular as vehicle of instruction, the candidates for the University Matriculation subsequently revising the subjects through the medium of English Text-Books. "I anticipate," adds Mr. Ambalal, in his evidence before the Education Commission, "so much good from the course I advocate, that I would most earnestly invite the attention of the Commission to it. There is no reasonable apprehension that the study of English will suffer in consequence of the adoption of the

(1) "Our students are obliged, whilst their knowledge of English is very imperfect, to learn from English Text-Books, History, Geography, Mathematics. . . . The natural result of such a system is that the subject taught is learnt in a slovenly manner, without precision or exactitude, whilst a careless and inaccurate style of writing English is almost invariably acquired."—Captain W. R. M. Holroyd, Officiating Director of Public Instruction, Punjab. Letter to the Punjab Government, No. 7, dated 9th January 1868. *Vide* page 322, East India Selection (Education), 1868.

course. There will be a great saving of time, which may with advantage be devoted to a more extensive study of the English language." (1). Rao Bahadur Gopalji Surbhai Desai, another veteran Gujarati officer long connected with the Department of Education, has also expressed his opinion (*vide* Appendix D, Paper No. 12) that "many of the subjects taught in the High Schools might be better taught through the medium of the Vernacular." The *Indian Spectator*—an ably conducted Bombay Paper—in a recent issue regrets the fact "that our boys have to learn History, Geography and Science—all that is worth knowing through a foreign tongue difficult to master for even adults with cultivated heads."—The late Mr. Justice Telang has (*vide* Appendix D, Paper No. 23) left a record to the effect that he entirely accepted the suggestion that "our system of education should be so altered as to make our Vernaculars the media of instruction for a much larger portion of our course of studies than they are at present. . . . I am sure that the students

"This appetite for English . . . has in several instances led to an attempt to convey substantive instruction through that language before the pupils possessed a sufficient grasp of it. The result, as may be gathered from notices in previous portions of this Report, has always been a failure, more or less complete. It is evident, indeed, without falling back upon experience, that the course is most unsound, and cannot but be highly injurious to the pupils."—Madras Educational Report for 1863-64. *Vide* page 103, East India Selection (Education), 1868.

(1) "That it (the system of making Vernacular the vehicle of rudimentary knowledge) combines the elements of cheapness and soundness is not denied. The advantages of imparting a rudimentary knowledge of the principal subjects of study through one's mother-tongue are admitted by experienced Educational officers, as well as by independent native gentlemen who have themselves received such a training in earlier days. But the system is distrusted as tending to retard progress in the English language."—The Director of Public Instruction, Bengal, *vide* Appendix (B), Paper No. 4.

"One of the arguments urged by those who are against the system of placing Entrance Schools upon a Vernacular Basis is that the study of History, Geography, and Mathematics through the Vernacular retards the acquisition of a knowledge of the English language which is of much greater importance than any other subject of study. This objection may be considered as groundless, because there is no doubt that boys are able to master what they have to learn in History, Geography, and Mathematics much more speedily and effectively if they learn those subjects in their Vernacular than through the English language. The time and labour thus saved may very easily be devoted to a more thorough study of the English language."—Resolution of an Educational Conference held at Dacca in 1891, *vide* Appendix (B), Paper No. 4.

Referring to the Punjab, Sir Alfred Croft states, in his Review of Education in India in 1886 (*vide* Appendix D, Paper No. 3):—"Nor is it alleged that a student suffers from being compelled to learn his History, or Science, or Euclid, first in his own Vernacular, and then by means of English Text-Books for the Entrance Examination. Indeed, if he has been well grounded in these subjects in the middle stage through the Vernacular, his subsequent study of them in English Text-Books would partake partly of the character of an easy revision of matter already known, and partly of a new series of lessons in English."

themselves will find their knowledge becoming more real and more easily accessible than if the medium itself is a foreign language. When I was in Calcutta, I endeavoured to re-arrange even our present Anglo-Vernacular Standards so as to suit this change. And without going through the whole work from beginning to end, I saw quite enough and did quite enough to convince me that such a re-arrangement, though it will require to be carefully thought out, will not present any really serious difficulty." This opinion of one of our educated leaders of society was generally concurred in by the late Mr. Bala Mangesh Vagle, M.A., LL.B., the late Mr. Mahadeo Moreshwar Kunte, M.A., a High School Head-Master of long standing, and also is believed to be held by our learned citizen, whose name is deservedly identified with the educational progress of the Community—Mr. Justice Mahadeo Govind Ranade. Professor T. K. Gajjar, M.A., B. Sc., thinks (Page 14, Note on University Reform) that "the Vernacular languages are superior to English as media of instruction in Schools, for, through a foreign tongue, the student cannot learn so easily (1), so rapidly, and so thoroughly, nor can his powers of mind be so well trained as through his own Vernacular. . . . The High Schools should adopt the Vernaculars as well as English as joint media of instruction."

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(1) "It seems to me to be mere waste of time to teach a boy general subjects of instruction in a language which he can only understand by means of translation into another language which is his mother-tongue. . . . You lead the youth, however gently, to dash from his mind impressions as they come uppermost in his own Vernacular, in order that he might receive those very ideas in a form in which they were not naturally presented to his mind before. Repeat the same process and what happens? An idea, pure and simple in itself, is made complex in the course of its formation, before it is conveyed to the young mind in the shape you wish it to be received."—Babu Bisheshwar Mitra, *vide* Appendix (H), Paper No. 47.

"In the Higher classes (of the Forest School at Dehra Dun,) instruction is given in English, but the teaching is in the Vernacular (Hindustani) for the lower classes. The answers given by the pupils in the Vernacular classes were brought out with far more readiness than by the Senior students; and it was often hard to make out whether the latter did not know the answers, or whether they merely did not understand the questions.

It will be just the same with Text Books. A Text Book in English will not be understood like one in the Vernacular, and it is far more likely to be learnt off as a lesson and committed to memory."—Page 387, Report on the Improvement of Indian Agriculture by Dr. John Augustus Voelker, Consulting Chemist to the Royal Agricultural Society of England, London, 1893.

I need scarcely add that my own views entirely coincide with those above expressed. As minister in Cutch and Baroda, and Naib Dewan and Head of the Educational Department in the latter state, I had not unfrequently to devote attention to the subject, and more recently I took it up as a special study. It is my firm conviction, shared by many friends with whom I have discussed the matter, that a change which will admit of a more extended use of the Vernaculars in the curriculum of our English Schools, is urgently called for.

8. Lord Reay, our former valued Governor, himself a distinguished Educationist, and now Chairman of the London School Board, while presiding at the inaugural ceremony of the Victoria Technical Institute, regretted (*vide* Appendix D, Paper No. 25) the absence of Vernacular Technical Literature which necessitated the teaching of scientific subjects in English, instead of in the Vernacular, characterized the situation as involving a "very great obstacle," and a "very great difficulty," and expressed a hope that a day might come when the Principal "will give his lectures in Maharathi." This shows the high value which the speaker set on elementary tuition being imparted through the Vernacular.

The Hon'ble Sir James Peile, M.A., one of our ablest Directors of Public Instruction (1), was in favour of preserving "the Vernacular as a joint medium of education with English or Sanscrit, so that the mental progress of the Scholar might be reflected in his increased power to make use of his own language." In their Report to the Education Commission, (Page 47) the Bombay Provincial Committee composed of the eminent personages named in the margin, pronounced in favour of "the soundness and breadth of such liberal views."

H. P. Jacob, Esq.
Sir W. Lee-Warner.
The Hon'ble Justice Telang.

9. As to the elaborate and detailed arguments, *pro* and *con*, given in the Report of the Education Commission and the subsequent Official Reviews on Educational Progress, I shall refer the reader to Appendix B, which contains the requisite extracts, and content myself with reproducing here the final conclusion of the Government

Reference to extracts in Appendix B from observations by the Education Commission and the subsequent Official Reviews on progress of education.

(1) *Vide* page 47, Volume I, Bombay Provincial Committee's Report to the Education Commission.

of India, which brings us nearer to a consideration of the exact shape of the remedy proposed.

Resolution of the Government of India on the subject.

Government of India Resolution, No. 10—309 dated October 23rd, 1884, Para. 22.

"There is one matter regarding which no special recommendation is made, but to which attention was drawn in the Resolution appointing the Commission and which is discussed in paragraphs 249-50 of their Report, *viz.*, the place which should be occupied by English and the Vernacular in Middle Schools. The Governor-General in Council is disposed to agree with the Commission that for boys whose education terminates with the middle course, instruction through the Vernacular is likely to be the most effective and satisfactory. The experience of Bengal goes, indeed, to show that even for lads pursuing their studies in High Schools, a thorough grounding conveyed through their own Vernacular leads to satisfactory after-results. It is urged by those who take this view that many of the complaints of the unsatisfactory quality of the training given in the Middle and High Schools of the country are accounted for by the attempt to convey instruction through a foreign tongue. The boys, it is said, learn a smattering of very indifferent English, while their minds receive no development by the imparting to them of useful knowledge in a shape comprehensible to their intellects, since they never assimilate the instruction imparted to them. It has been proposed to meet this difficulty by providing that English shall only be taught in Middle Schools as a language, and even there only as an extra subject, when there is a real demand for it and a readiness to pay for such instruction. His Excellency in Council commends this matter to the careful consideration of local Governments and Educational Authorities."

10. The following extract from the Report of the Education Commission, page 213, explains as to how the expression "Middle Schools" is to be understood, so far as our Presidency of Bombay is concerned :—

Interpretation of the term "Middle Schools."

"In Bombay the 3rd standard of Middle Schools is that for admission to the High School course of four years, and might therefore be supposed to mark the close of the Middle School course. But, it

will be convenient to consider the fifth standard which in Middle Schools is that of qualification for the upper grade of the Public Service, and, in High Schools comes two years below Matriculation, as marking the boundary between the middle and the high stage of Instruction."

Period of the Secondary Course.

It may be explained here that, as a rule, the secondary course in most of the other Provinces of India, as shown by the Report of the Commission (*vide* Appendix B), extends over five years, "three of which are passed in the Middle stage, and two in the High." Interpreted as above proposed, the Bombay course, as regards the line of demarcation between its Middle and High stages, would correspond with the general practice obtaining elsewhere, viz., that the High School stage ending with the University Entrance Examination is represented by the last two years of the secondary course; the stage between that and the Primary being regarded as Middle.

Orders of the Bombay Government.

11. The extract quoted below from the Bombay Government Resolution No. 2108, dated the 8th December 1884 (*vide* page LXXXVI, Bombay Educational Report for 1884-85), will show what His Excellency the Governor in Council did on receipt of the above Resolution of the Supreme Government :—

"The views and instructions of Her Majesty's Secretary of State and of the Viceroy in Council on the Report of the Indian Education Commission having been communicated in the Resolution of the Government of India, Home Department, No. 10-309 of October 23rd, 1884, His Excellency in Council will now direct attention to those matters in which he desires that action shall be taken by the Educational Department in this Presidency to give more full and complete effect to the principles approved by the Government. . . .

"With regard to the revision of standards, both for Primary Schools and others, His Excellency in Council commends the remarks of the Commission to the attention of the Director of Public Instruction. The standards are always open to revision, and His Excellency in Council has no reason to doubt that sound suggestions from whatever quarter offered, are carefully considered. In connection with this subject, the attention of the Director is called to paragraph 22 of the Resolution of the Government of India."

Bombay Review of Educational Progress, 1892-1897.

In a recent Review on Educational Progress, published by our present experienced Head of the Educational Department, with his annual Report for 1896-97 (*vide* Appendix B, Paper No. 5,) the continuance of the present system as regards the medium of instruction in secondary schools, has been preferred, and no change advocated. This necessitates our facing the very initial question, are there not strong grounds for a reconsideration of this official opinion in favour of total inaction ?—a policy of *non possumus*.

Divergent views as to preferable vehicle of knowledge.

12. In the Review above referred to, it is stated :—"In this Presidency the Vernacular is the medium of instruction in the middle stage, *i.e.*, standards I-III, and English becomes the medium of Instruction in the High School stage, standards IV and onwards. Sensible Inspectors would not be hard upon a school whose boys in standard IV were unable to answer questions fluently in English ; but what is claimed for our system is that as the acquisition of English is the end and aim of this class of Education, boys will acquire it more thoroughly if taught to practise it constantly." The experience gained in the Punjab by a former Lieutenant-Governor, Sir Donald Macleod, is directly opposed to this. "The amount of time," observes this eminent statesman (Page 90, East India Selection, Education, 1868), "which is necessary to devote to the various subjects studied in our schools, where these are taught in the English language, leaves but little time for perfecting our pupils in their knowledge of that language itself. Many parents have complained to me of this as regards their sons." The observations recorded by Sir Alfred Croft in his review on Education, 1886, contain this pertinent remark :—"Nor, again, is it conceded that you will by this method (tuition through English) be sure of making him (a student) a more expert and fluent English scholar," and again, "at the present day juster views prevail as to the value of artificial trammels in the acquisition of knowledge, and English has altogether displaced Latin as the vehicle of instruction." It will appear from Appendix (B) that our present system represents the old Bengal one which has been, in a great measure, replaced there in Middle Schools by another having a Vernacular basis, and retained only "so far as it applies to the method of instruction in High Schools—understanding

that term to signify the upper classes reading for the Entrance Examination. By the time a pupil arrives at that stage of instruction, he may be assumed to have advanced so far both in English and in other subjects as to be able to profit by instruction conveyed in a foreign tongue." We have the authority of Educationists with local experience that at the time a boy enters our High School stage, he is not in a position to profit by instruction conveyed through a foreign language. Even Lord Macaulay—the successful advocate of English as channel of imparting knowledge in this country, had to allow that "when the object is merely an elementary education, it may be most easily imparted to the natives in their own language."

An Educational Conference suggested.

13. If a reconsideration of the subject is decided on, why not adopt the plan advised by Sir Alfred Croft, of having an Educational Conference for a detailed discussion of the subject in all its bearings? "The whole question," says this distinguished Director of Public Instruction, "seems to be one which might with great profit be submitted in each Province to the judgment of an Educational Conference, in which the Head Masters, alike of Departmental and Board-Schools, and of those under private Managers, should be represented, and in which the practical results of different methods might, when possible, be compared." Attention is also invited to what the Education Commission have recommended in the concluding portion of their observations on the subject:—"We do not put forward any definite recommendation on this subject, but at the same time we commend its consideration in the light of observations above made, both to local Governments and Departments, and in an equal degree to the Managers of aided and unaided secondary schools. It is a question in the discussion of which much must depend on local circumstances; and hence the freest scope in dealing with it should be left to the Managers of schools, whatever be the view which the Department in any Province may be disposed to adopt."

Co-operation of Teachers' Association and a concerted plan of action by educated leaders, desirable.

14. We have in our city of Bombay the recently started Teachers' Association. That useful body may be advantageously invited to devote their attention to the subject and record their conclusions. (1) Some of the leaders of the educated section of our Society, who sympathise with the movement,

(1) "It is proposed to hold an Educational Conference in Madras on December 22nd and 23rd of this year under the auspices of the Madras Teachers' Guild as in 1896 and 1897. All those that are interested in education are cordially invited to attend."—The *Hindu*, Madras, 8th September 1898.

may form themselves into a Committee in order to ensure the subject receiving the deliberation its importance deserves. In fact, what I would urge is, let concerted action be brought into play for a fair settlement of a question so intimately connected with the educational progress of our rising generation.

Proposed Improvements.

15. The only point which remains to be noticed in this regard is the exact scope of the remedy proposed to be adopted. If a Conference can meet to discuss the matter, the final recommendation must, of course, proceed from it after a thorough sifting of the details. The suggestion here made is, therefore, to be regarded merely as a rough basis put forward for discussion. It is this :—

(*a*) The subjects which, under the present system, are not taught to the High School students in the Vernacular, but in English by means of English Text Books, should, in the first instance, be all taught to them in the Vernacular, and then revised in English by means of English Text Books.

(*b*) This would necessitate the re-casting of the standards of the Middle and High Stages of instruction. Let the present rule be maintained intact, that in the High School course the English tongue is utilized both as language-study and medium of instruction. Whether the proposed revision in the High School of all subjects taught through the mother-tongue in the middle stage could be compressed within two years, or whether the extended period of three years should be allowed for the purpose, is a point of detail—perhaps it would be better to adopt the latter alternative. We should then have a High School course of three years, and a Middle School course of four years; and the present standards might be rearranged accordingly. (1)

(1) "First—The enforcement of a uniform rule that the teaching of all subjects of general instruction shall be in the Vernacular, in all institutions and classes educating up to the standard of the Middle Class Schools. This will render necessary the abolition of all junior classes in English Schools, except the first two or three to be kept up for the purpose of preparing boys for the University Entrance Examination."—opinion of Babu Bisheshwar Mitra, Pleader, High Court, North-Western Provinces. *Vide* Paper No. 47, Appendix (H).

(*c*) If suitable Vernacular Text Books are wanting for any of the subjects of study, which, under the operation of suggestion (*a*), must be taught in the Vernacular, steps should be taken to bring about the compilation of the books required. This need not present any serious difficulty.

The proposed changes, though small, give effect to a great principle, so much pressed on attention by Professor Bain—the celebrated Educationist, *viz.*, that "the knowledge of things might always be well ahead of the language-study." Special attention is here invited to the pertinent remarks and wise observations offered in his work "Education as a Science," and collected in Appendix (C), Paper No. 8, for ready reference.

Chapter III.

ENGLISH AS LANGUAGE-STUDY.

It is certainly the modern theory in England that a boy's intellect should be strengthened by instruction in his own Vernacular, before he attempts the study of a foreign language, and that he will thus be enabled to grapple with the difficulties of the foreign language much more successfully.—*Sir Alfred Croft*, Director of Public Instruction, Bengal.

The advantage that young children have over young men in catching a spoken language has led some to infer that they have an equal superiority in learning to read a language which they do not hear spoken—an inference, which, I think, is contrary to experience.—*Sidgwick.*

The quickening of general intelligence caused by a national scheme of study in the Vernacular language would enable the pupil to learn the English language with much greater rapidity than would otherwise be the case.—*Madras Native Association.*

Every new language is understood only by comparison and contrast with the one first learnt, the primitive symbol being only re-symbolised ; (1) thus . . . all model themselves upon the oldest, the native tongue.—*Richter.*

[In the study of foreign languages] the subject knowledge might always be well ahead of the language-study.—*Bain.*

16. With respect to the study of English as language, the question which seems to deserve first consideration is, when should that study begin so as to produce results which might be regarded as most satisfactory, in every way? At present such commencement follows immediately, as already explained, the completion of the 4th Primary standard, and a subsequent course of seven graduated standards, each of a year's duration, takes a boy to the Entrance Examination. The complaints against the existing system, the chief objectionable features of which are represented to be a too early and premature commencement of the study of a difficult foreign language, and the non-utilisation of the Vernaculars as media of instruction to an extent considered as essentially requisite, may be thus summarised :—

When should the study of English begin?

Statement of objections to the present methods.

1*st*. That the commencement of the study of English as language is not based on a sufficient and competent knowledge of the Vernacular, as it should be.

(1) "Richter means that as words call up images of things, and hence are symbols of them, words of a foreign tongue first call up the equivalent in the mother-tongue and then the thing; hence they are symbols of symbols."

2*nd*. That such commencement is made at an age which is not regarded as ripe enough for the acquisition of a good knowledge of the Grammar of even one's own Vernacular, much less that of a foreign language.

3*rd*. That, moreover, the age of ten or eleven years, which ordinarily marks the completion of the Primary Standard IV, is not one, when, in the majority of cases, we may expect on the part of a student that comparative sufficiency of knowledge on general subjects or that tolerably advanced state of the faculty of understanding which it is desirable should precede the beginning of the study of a difficult foreign language.

4*th*. That the present system fails to ensure a scholarly knowledge on the part of a student of his Vernacular before leaving the High School, which ought to be the place for the acquisition of such qualification.(1)

5*th*. That notwithstanding the almost crushing burden thrown on students by a system of tuition, based, as above contended, on erroneous principles, the result is the exhibition of inefficiency as regards the knowledge of the English language at the University Entrance Examination and the subsequent College career, to an extent which demands the adoption of a proper remedy.

17. A recent expression of opinion* by our worthy Director of Public Instruction (Appendix B, Paper No. 5) at once shows the utility of a good Vernacular education to a student desirous of learning English. The cultivation of one's mother-tongue has, of course, its intrinsic value; but here we are considering its position, not as in any way coming in conflict or rivalry with the English language, but as a valued aid in the acquisition of a competent knowledge of that foreign language itself. As

* "A pupil will learn English more quickly and thoroughly if he has a competent knowledge of his Vernacular."

(1) "A knowledge of the students' own Vernacular language should be required as indispensable in any one who applies for admission to this University. It is, I am convinced, one great security for the future prosperity as well as utility of the University."—*Sir Bartle Frere*, Bombay University Convocation Speech, 1862.

the result of accumulated experience, the modern theory, which is gaining ground, is that the superstructure of the successful study of a foreign language is best laid on the foundation of a sound knowledge of one's own Vernacular. England is actually deriving benefit from the adoption of this theory, and the experiment in Bengal is certainly encouraging. A Madras Civilian (Appendix E, Paper No. 29) prominently brings forward the lamentable fact that before a student "has an idea of his own which he can adequately express in his native language, he is put upon English"; and, as a remedy, the late Justice Sir Muthu Swami Iyer (1)—a well known authority on Educational matters—suggested raising the Vernacular Instruction to the 6th standard as qualification test for beginning the study of English. This suggestion corresponds with what Khan Bahadoor Kazi Shahabudin, C.I.E., lately Minister of Baroda, and a gentleman who, I know, has devoted special attention to the subject of Education, recommended to the Education Commission :—"I think further that the standard of admitting boys from Vernacular into Anglo-Vernacular Schools might be raised, so that they might be better grounded in useful elementary branches of knowledge before they are admitted to the study of English." Mr. Hensman, of Kumbakonam College, Madras (Appendix E, Paper No. 35), has evidently an unbounded faith in the value of a sound Vernacular basis for a superstructure of English; he characterizes the present system as one involving "painful efforts at realising the unrealisable," and considers that with a sound Vernacular Education a boy "will be able to matriculate in four years at most. In many cases, three years will suffice." If this estimate by a gentleman in distant Madras is compared with the actual experience of a distinguished educationist in our midst, Dr. Mackichan (Appendix D, Paper No. 27), the result would appear to be a striking agreement between them. "I have seen, for example," says Dr. Mackichan, "a boy who had completed a high Vernacular education before entering upon the study of English, simply walk through the higher standards of the High School two in a year and matriculate in the fourth rank at the University Examination." If, in this

The superstructure of the study of English best laid on the basis of a good Vernacular education.

(1) Evidence before the Education Commission, Madras Provincial Committee's Report, page 135.

particular case, to the High School course of four years we add that of three years of the Middle or Anglo-Vernacular School, and presume, rightly no doubt, that the student's progress in the middle school was as expeditious as in the High School—two standards in a year, the total period of his tuition in the Secondary schools would be $\frac{7}{2}=3\frac{1}{2}$ years, *i.e.*, just the mean between Mr. Hensman's estimate of 3 or 4 years.

18. As to the scientific aspect of the question, *viz.*, the study of grammar, the subject-knowledge preceding the language-study, &c., I would beg a reference again to the quotations given in Appendix (C) from Bain's work, "Education as a Science." A boy cannot successfully learn much of grammar at the immature age of 10. As a matter of fact, his knowledge of that subject on the completion of the 4th Primary standard is, as is clear from the sanctioned course of study, very limited and perfunctory. The late Mr. Waman Abaji Modak, B.A., Principal of the Elphinstone High School, and a noted educationist, observes in his essay on the Vernaculars, "As the boys generally come up to the High School about the age of 12, their acquaintance with their own Vernacular is of an extremely elementary character. Of their own *Literature*, they know next to nothing, and the same remark holds good with reference to their knowledge of the grammar of their own tongue." It has to be remembered that this remark refers to the boys admitted into the *High School* after a three years' course of studies in the Anglo-Vernacular School—a course for the prominent Vernacular element of which the Bombay Department of Public Instruction rightly deserves credit. A little reflection is enough to disclose the limited character of the Vernacular Education on the part of a student at the time of his admission into the Anglo-Vernacular School, *i.e.*, when he begins his study of the English language.

19. The 4th complaint receives confirmation from various quarters. In this connection, a few preliminary observations may well be offered. The necessity of improvement in the Vernacular languages of India has always been recognised by its British Governors from early times. As early as 1835, the General Committee of Education, Calcutta, (1)

Failure of the present system to ensure a satisfactory knowledge on the part of a student of his Vernacular before leaving the High School.

(1) *Vide* pages 22 to 24, Sir Charles Trevelyan on Education in India, London, 1838.

expressed their opinion that "We are deeply sensible of the importance of encouraging the cultivation of Vernacular languages. . . . We conceive the formation of a Vernacular Literature to be the ultimate object to which all our efforts must be directed." This was echoed by the Court of Directors in their Despatch of 1854:—

Instructions of the Court of Directors as to the cultivation of the Vernacular languages and the improvement of Vernacular Literature.

"It has hitherto been necessary, owing to the want of translations or adaptations of European works in the Vernacular languages of India, and to the very imperfect shape in which European knowledge is to be found in any works in the learned languages of the East, for those who desired to obtain a liberal education to begin by the mastery of the English language as a key to the literature of Europe. . . . We have always been most sensible of the importance of the use of the languages which alone are understood by the great mass of the Population. . . . It is indispensible, therefore, that in any general system of Education, the study of them should be assiduously attended to. . . . The English language should be taught where there is a demand for it, but such instruction should always be combined with a careful attention to the study of the Vernacular language of the District, and with such general instruction as can be conveyed through that language. . . . As the importance of the Vernacular languages becomes more appreciated, the Vernacular Literatures of India will be gradually enriched by translations of European works or by the original compositions of men whose minds have been imbued with the spirit of European advancement, so that European knowledge may gradually be placed in this manner within the reach of all classes of the people. We look, therefore, to the English language and to the Vernacular languages together as the *Media* for the diffusion of European knowledge, and it is our desire to see them cultivated together in all schools in India of a sufficiently high class to maintain a school-master possessing the requisite qualifications. . . . Their (of the affiliated Institutions') scheme of education should provide, in the Anglo-Vernacular Colleges, for a careful cultivation of the Vernacular languages; and in the Oriental Colleges, for sufficient instruction in the English and the Vernacular languages, so as to render the studies of each most available for that general diffu-

sion of European knowledge, which is the main object of Education in India." (1)

Observations by Lord Macaulay and Sir Charles Trevelyan.

20. "We must," wrote Lord Macaulay, (*vide* his famous Minute of 1835,) "at present do our best to form a class who may be interpreters between us and the millions whom we govern; a class of persons, Indian in blood and colour, but English in taste and opinions, in morals and in intellect. To that class we may leave it to refine the Vernacular Dialects of the Country, to enrich those dialects with terms of science borrowed from the Western nomenclature and to render them by degrees fit vehicles for conveying knowledge to the great mass of the population." Another distinguished statesman, who has always evinced great interest in the Educational progress of this country, Sir Charles Trevelyan (2), says, "Our main object is to raise up a class of persons who will make the learning of Europe intelligible to the people of Asia in their own languages."

Views of Sir Bartle Frere and Sir Richard Temple.

Similar views have been expressed by local Governors. Addressing the Bombay Graduates in 1862, Sir Bartle Frere said:—"Remember, I pray you, that what is here taught is a sacred trust confided to you for the benefit of your countrymen. The learning

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(1) "Here there is no equivocation, and the policy laid down is as clear as daylight. Whether the Vernacular languages of India are cherished by the people speaking them in their Homes as the immediate jewel of their souls, is not at all taken into consideration in formulating the above policy of education, wherein these languages are expected to be so cultivated as soon to become worthy of occupying a position equal to that of English. Through the operation of the English language, English culture, and English thought, the improvement of the capacity of the Vernacular languages of India is naturally taken for granted; and if they be not now the immediate jewel of the souls of the people of India, it is quite emphatically declared that they should be made so as early as possible.

The Policy contemplated in this worthily famous Educational charter for India is evidently to make English and the Indian Vernacular languages co-ordinate factors in working out the culmination in India of that harmonius combination of Eastern and Western civilisations, which, in the plan of Providence, seems to be the noble privilege of Great Britain to cause, to watch over, and to foster."—*Opinion of Professor M. Rangachariar, M.A. Vide* the *Hindu* of Madras, 26th March 1898.

(2) *Vide* page 121, Sir Charles Trevelyan on Education in India.

which can here be imparted to a few hundreds, at most to a few thousands, must by you be made available, through your own Vernacular tongues, to the many millions of Hindostan." In 1878, Sir Richard Temple thus emphasised the advisability of a due cultivation of the Vernaculars :—"It is the acknowledged principle that while English Instruction is offered to the natives, they should be thoroughly grounded in their own language."

21. These authoritative instructions leave no room for doubt as to the exact line of action. The cultivation of the Vernacular Languages of the country was to be duly encouraged; and, as remarked by Sir W. Monier Williams ([1]) :—"A majority of the Education Committee seem in the end to have come to the conclusion that the exclusive encouragement of English could only be a temporary expedient, and that the formation of a Vernacular Literature was the ultimate object to which their (The Educational Committee's) efforts ought to be directed. Even Mr. (now Sir Charles) Trevelyan looked through a vista of English to a time when the Vernaculars would become well fitted *for every purpose of Literature and Science.*"

Results disappointing.

22. As to results, recourse must again be had, so far as our Presidency is concerned, to the experience of local experts. In the opinion of Dr. Mackichan (Appendix D, Paper No. 27), "the Vernacular should obtain a larger recognition in the school system." "It is not to be supposed that the amount of knowledge of the Vernacular, which a boy can acquire up to the time of his passing the IV Vernacular standard supplemented by what he can gather during the succeeding few years in which the mind is overshadowed by the difficulties of the English language, can furnish a real foundation for culture and literary usefulness in the Vernacular." "Why should it be the case that very few educated young men can speak with authority on any point, *e.g.*, of Vernacular grammar or idiom and leave all this to Shashtris and Pandits? No young man in Europe would be considered to have received a thorough good education unless he had learnt to avoid grammatical and synthetical errors; and had some taste for the niceties of the idioms of his mother-tongue. This is not the rule in India, and it is scarcely to be expected under the existing system."

([1]) *Vide* page 288, Report to the Education Commission by the Madras Provincial Committee.

The Reverend R. A. Squires, M.A., (Appendix D, Paper No. 15) suggests, " that in the Anglo-Vernacular High School course more attention should be given to the Vernacular. . . . I should like to point out that the system of higher education established in this Presidency has sadly failed (1) to enrich the Vernacular Literature by translations from European books or by the original compositions of men who have been imbued with the spirit of European advancement (Educational Despatch, 1854). .. . Surely, in our Colleges if anywhere, and amongst the Professional staff, we ought to look for a perfect acqaintance with the Vernaculars of the land; for how else can it be expected that they will be enriched with the best of Western Literature and Western thought? 'I have not stopped to state that correctness and elegance in Vernacular composition ought to be sedulously attended to in the superior Colleges. This is a matter of course in the scheme of instruction.'—(*Lord Auckland's minute*, 24th November 1839, paragraph 20.)"

In their Report to the Education Commission, the Bombay Provincial Committe observe, " Though the study of the Vernaculars is not wholly neglected in the High Schools, it has been so far pushed out of its proper position under the present system, that the master-

(1) " In the higher branches of indigenous Literature, the Victorian period has little to exhibit."—Sir Alfred Lyall, K.C.B., G.C.S.I., Article on India under Queen Victoria in the " Nineteenth Century " for June 1897.

" It might have been expected that when first the Native Indian mind was brought into contact with the English language and its literature, it would improve and invigorate its own indigenous languages by this wholesome contact, and infuse into them new strength derived from the foreigner. What happened to the English language itself in the fifteenth and sixteenth centuries when English Scholars were largely introduced to the classical languages and literatures of Greece and Rome, might also have fallen to the lot of the Indian Vernaculars ; and they, too, would have become more elastic and robust with a more varied and wealthy literature. Instead of neglecting, almost abandoning their own, the Indian youths might improve them by adapting and engrafting what they find best in the new. Perhaps a later generation may do that. So far, however, it has not been done, and it may be said that the rising talents of the country are doing very little to cultivate their mother tongues and so enrich their literatures. This is really crippling their own usefulness. . . . A command over the Vernaculars, if wielded by men who have also had access to Western learning would have the greatest influence over the people in India."—India—forty years of progress or Reform, being a sketch of the Life and Times of Beheramji M. Malabari by Professor R. P. Karkaria. London, 1896.

pieces of the Vernacular authors are but seldom read, and students leave school with an erroneus conception of the achievement of such indigenous literature and of the directions in which it is capable of further development. Mr. Peile when Director of Public Instruction wrote :—' The dislike shown by University graduates to writing in their Vernacular can only be attributed to the consciousness of an imperfect command of it. I cannot otherwise explain the fact that graduates do not compete for any of the prizes of greater money value than the Chancellor's or Arnold's Prize at Oxford or the Smith's or Members' Prizes at Cambridge. So curious an apathy, so discouraging a want of patriotism, is inexplicable, if the transfer of English thought to the native idiom were, as it should be, a pleasant exercise, and not, as I fear it is, a tedious and repulsive trial.' This reproach has not yet been wholly removed. . . . In the development of a permanent Vernacular Literature our graduates have hitherto taken but little interest."

23. The addition of the expression of views by two of our native leaders may fitly bring these quotations to a close. Mr. Justice Ranade, in a recent able Paper on Mahratta Literature, observes :—

"As a rule our boys cease to study the Vernaculars as soon as they enter English schools about the twelfth year of their age if not earlier. They thus practically lose touch with their people (1), and by the time they obtain their Degrees, too

(1) "It is sometimes said that a wide separation has taken place between that comparatively small section of the Native Community who have been educated through the medium of the English language and the masses of their countrymen, that the former have become demoralized and that they do not form that link, which it was hoped they would have constituted, between the European Governors of the country and the great mass of the population. Whether this be the case or not at the present time, it is clear that it must be so eventually, if the learning of the West shall continue to be confined to those who are able to acquire it through the medium of what must ever be an unknown tongue to the millions in this land." —*The Hon'ble A. J. Arbuthnot*, C.S.I., University Convocation, Madras, 1868.

"And lastly I pointed out how superficial, in consequence, the education was, which was entirely conducted in an extremely unfamiliar and foreign language, and how, owing to the want of a proper channel of communication which the cultivation of the Vernaculars alone could afford, the educated few were isolated from the uneducated masses, in their thoughts and feelings, aims and aspirations." —Essay on Vernaculars by Waman Abaji Modak, Esq., B.A., Principal of the Elphinstone High School, Bombay.

many among them find that they are unable either to talk or to write or read their current Vernacular language. This want of familiarity breeds contempt for their mother-tongue, and people find it difficult to sympathise with a system which produces the unnatural result of so called educated men being unable to speak or to write their own mother-tongue fluently and correctly." (1) "Their (the graduates') education is so exclusively foreign that all incentive to study and to add to the stock of National Literature, is for the most part entirely wanting, and, year after year, this indifference and neglect are becoming more pronounced." The late veteran Head Master Mr. Vaman Abaji Modak, B.A., has recorded a similar opinion :—"The diffusion of European knowledge amongst the people generally through the instrumentality of educated men imbued with the spirit of European learning and having a thorough mastery over their own tongue for the purposes of translation and original compositions which was the great aim of the great Educational Despatch of 1854, is not so much as attempted. . . . The ordinary conversation of the educated and the half-educated alike is often conducted in a language which is neither English nor Vernacular, but a most ludicrous mixture of the vocabulary of both the languages."

24. A state of things is here disclosed which can hardly be regarded as calculated to give complete effect to the policy prescribed by the Supreme Government in India. The present system of secondary Education would certainly seem to require amendment so far as the Vernaculars are concerned. The knowledge of their mother-tongue acquired by the students under that system is pronounced defective, and a remedy is urgently called for.

Result of Secondary Course under the present system, in efficiency in English.

25. As to the 5th or the last complaint, which refers to the question of competency in English, I have not been able to obtain any expression of opinion from eligible sources of a very recent date. What is available ranges between the years 1879 and 1892, and is quoted below in full :—

The Hon'ble Mr. J. Gibbs, late Vice-Chancellor of our University, speaking at the Convocation of 1879, observed :—"There is no doubt

(1) "Surely, there can be nothing sound in a system of instruction which leaves a boy at the conclusion of its course unable to express accurately either his own, or the thoughts which are given to him, in *his own* language."—J. Lee-Warner, Esquire, Madras Civil Service, *vide* Appendix (E), Paper No. 29.

that one of the greatest difficulties the student finds on joining the Colleges is to understand the lectures and the text-books." The following is an extract from the Convocation speech—1883—of His Excellency Sir James Fergusson, a former Governor of Bombay :—

"We know the Principals of the Elphinstone and Deccan Colleges have represented that the candidates (who have passed the Matriculation Examination) are not sufficiently advanced in English to enable them to take full benefit of the instruction given them." Four years later, the Hon'ble Sir Rymond West, whose name is so highly honoured in our community, thus pronounced his opinion :—

"I believe there are few of the gentlemen who have taken their degrees to-day and few who had to go through the torture of examinations in the lower stages, who will not admit that they have suffered considerably by the defects of the Primary and Secondary education through which they have passed preparatory to their coming to this University." The successive Convocations of 1891 and 1892 were presided over by the Hon'ble Mr. Birdwood, who gave expression to his views as follows :—

1891.

"School boys who have passed the Matriculation in order to enter a College not infrequently find themselves unable to understand the lectures which they attend. The Matriculation Examination, in short, furnishes a very insufficient test of a knowledge of English."

1892.

"I can only myself express the fervent hope that the question of remodelling it (the Matriculation Examination) will again be brought before the University by the Heads of Colleges, to whom it must be a matter of vital importance that their undergraduates should come to them with school training as fits them to understand and to derive benefit from College Lectures."

The direct testimony supplied by College Principals is noted below :—

Extract from the Report of W. Wordsworth, Esquire, Principal, Elphinstone College, for the year 1885-86.

"Apart from the comparatively unprepared state in which the students come to us."

Extract from the Report of the Principal, Grant Medical College, for the year 1891-92.

"3 *Matriculated Students.* There were 36 new entries. A considerable number of candidates were rejected on account of insufficient knowledge of English."

26. I believe no change of any consequence has since been introduced in the University system so far as the Matriculation Examination is concerned, and presumably the defects inherent in that system continue. If an Educational Conference is held, the experience of the able workers actually engaged in the task of tuition will be made available to get at a conclusion as to the actual state of things at the present moment.

A warning against too early commencement of English under Junior Masters.

27. Annexed is an extract from the obervations of Sir Alfred Croft (Appendix B, Paper No. 3), as conveying a warning against a too early commencement of English under very junior masters. "In defence of the system of educating Indian boys through English in order to increase their power of familiar expression in that language, it is urged that an English Parent, wishing his children to learn French colloquially, places them under a Swiss *Bonne*. The difference is that the Swiss *Bonne* teaches them good colloquial French, while the Hindu school master can often teach only bad colloquial English, and the lower down in the school the study of English is begun, the more pronounced is this defect. Glaring faults of idiom and of pronunciation which sometimes disfigure the speech of even highly educated men, are in most cases due to the fact that they have begun to learn English under Junior Masters imperfectly acquainted with the language, and that early training has rendered those faults ineradicable."

Proposed improvement.

28. Coming now to the question of remedy, the conclusion which I have arrived at after anxious deliberation and consultation is that the study of English should commence two years later than is the case at present. This would give the first two years in the Anglo-Vernacular School for an exclusive study of the Vernacular, and I have no doubt that after a boy has been so trained in his mother-tongue, his subsequent two or three years' course in English would place him in as good a

position as he would occupy by a four or five years' course of English under the present system. I would be disinclined to accept the suggestion that the test for the admission of boys into the Anglo-Vernacular School should be raised from the 4th to the 6th standard (1). Even that would necessitate a recasting of the Anglo-Vernacular and High School curriculum; and would not give to the boys the benefit of tuition from English knowing masters (2) who by means of English Text Books are in a position to widen the scope of their explanations in regard to subjects taught in the Vernacular in the first instance. My proposal would involve the least change; the admission would continue to be made just as it is; and for the first two years, the gap caused by the non-instruction in English would be filled in by advanced Vernacular studies, agreeably to an altered Programme. The effect of this would be that a boy would begin English at the age of 12 or 13, *i.e.*, the 1st six years would be devoted entirely to the Vernacular studies. This would almost exactly correspond with Comenius' scheme of education in ancient times, described in Appendix (D), Paper No. 14. (3) In each, the study of a foreign language would commence after a six years exclusive course of Vernacular education. I am tempted to offer one remark here in connection with the proposal for a postponement of the study of English for two years. In the very old days when English education had just found its way in the Moffusil, the existence of only a limited number of English knowing natives had the effect of obtaining a lucrative employment even for those who could just copy English without any pretence to possessing even a tolerable

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(1) "There are two courses to choose between. The first is to require that every boy seeking to begin the study of English, would have learnt elementary Sanscrit, History, Geography, Mathematics and Science at the Vernacular School; the second is to maintain the Entrance standard as at present, but to teach these subjects in English Schools through the Vernacular. The former course would be somewhat revolutionary at present. I, therefore, advocate the latter."—Ambalal Sakerlal Desai, Esq., M.A., LL.B. Evidence before the Education Commission, Bombay Provincial Committee's Report, Volume II, page 288.

(2) "It is indispensible, in order fully and efficiently to carry out our views as to these schools (Vernacular), that their masters should possess a knowledge of English in order to acquire, and of the Vernacular so as readily to convey, useful knowledge to their pupils."—Despatch of the Court of Directors, 1854, para. 45.

(3) "In Comenius' scheme there were to be four kinds of schools for a perfect educational course:—1st. The mother's breast for infancy; 2nd The Public Vernacular School for children, to which all should be sent from six years old till twelve; 3rd. The Latin school or gymnasium; 4th. Residence at a University and travelling, to complete the course."

knowledge of that language (1). In fact, I have actually seen a certificate which praised the qualification of a clerk in so far that he was able to understand what he copied! Those days have long passed away, and now even Matriculated candidates and others holding higher qualifications find it difficult to obtain suitable appointments. For admission to service in an English Department, there is the test of the 1st grade certificate which can be got only after passing the 5th Anglo-Vernacular standard. The change above proposed as to the commencement of the study of English has reference to stages below this standard, and under the altered plan, a boy would reach the 5th Anglo-Vernacular standard just at the same time as now; the only difference being that under the present system he would complete the 5th standard after an English course extending over five years, whereas under the new system, he would reach that stage after a 3 years' course of English. It will thus be seen that there is no advantage that a boy would sacrifice by the change, and that therefore no opposition such as would have been offered to the proposed change in the old days, when even a smattering of English was sufficient to obtain service, need be apprehended now. With the proposed changes as to the medium of instruction and the time of beginning the study of English, the whole course of Secondary education would have to be recast, and the opportunity might be taken to see how the Vernacular portion of that course could be revised so as to produce the best results.

Consideration of the question of total period of tuition from Alphabet to Matriculation, suggested.

29. Before concluding this part of our subject, I would suggest that the question whether the total period of tuition from the Alphabet to the Matriculation will admit of reduction, do receive attention. At present it is a course of eleven years in Bombay, whereas elsewhere in India it is generally one of nine or at most ten years. I would not be disposed to reduce the period of tuition if it involved any sacrifice—the least sacrifice so far as knowledge is concerned. I hold that an efficient foundation laid

(1) "So long as the chief motive for education at all was the securing of a clerkship in a Government office, there was a rage for a smattering of English to the neglect of more solid acquirements; but now that the Government offices are being filled by men who have received a University Education, it is desirable that middle class education should be placed on a Vernacular basis, with only so much of English super-added as is necessary to connect it with Higher Education."—*Madras Native Association*, The Madras Provincial Committee's Report to the Education Commission, page 292.

in the earlier stages of a student's career would carry him very easily through his advanced studies. Let us hope that an Educational Conference may be appointed, and that it will take into consideration the whole subject of Secondary education, including all the points which have arisen or may yet be brought forward. The Report of the Education Commission has the following (page 219) in reference to the question of time just alluded to :—"It has also been seen that the course in Bombay from the Alphabet to the Matriculation occupies a longer period than in Madras or Bengal, and in comparing the courses of Instruction in Middle Schools and departments, we have generally pointed to a somewhat higher degree of difficulty as characterizing the Bombay Standards, both initial and final."

Probable effect of the changes advocated.

30. A brief explanation as to the probable effect arising from the changes advocated in this and the preceding chapter may not be out of place here. The chief complaint heard against the present system is that by the time a boy matriculates, his constitution is almost shattered (1) under the pressure of hard work thrown on him by his school curriculum, and yet the result in most cases is that he is only a crude English scholar with a smattering of other subjects. He commenced the study of English without adequate preparation ; his subject-knowledge and language-study were mixed up, contrary to the dictates of wise experience and recognised principles. The vocabulary and the idiom of a difficult foreign tongue diverted attention from the acquisition of general knowledge (2) resulting not infrequently in his succumbing to the temptation of committing whole sentences to memory, without a full comprehension of the subject-matter thereof. The effect is perceptible in a variety of imperfections which, though they may not come in the way of his crossing the University Portal, cling to him all throughout his future

(1) "How many toilsome years must pass before the literature of knowledge is unfolded to the view of the Hindu boy ! By that time, his young spirit lies crushed and broken under the huge burden that is placed over him. He may become a good accountant, a good Judge, or a good School Master. But long before all this, he has become what he is called the mild Hindu."—J. M. Hensman, Esq., Kumbkonum College, Madras. *Vide* Appendix E, Paper No. 35.

(2) "Students have at present to bear a double sort of burden. They have not only to master Euclid, but also the language. In their answers they have to guard against the mistakes of language first, and those of thought afterwards." —Chintaman Hari Sohoni, Esq., Answers to Questions from the Baroda Education Commission.

educational career, and seldom allows him to rise above mediocrity. The proposed changes are meant to put the future plan of working on what is believed to be a sounder and scientific basis. He will, in the first instance, have to make himself a sufficiently advanced scholar of his own vernacular before beginning the study of English ; he will thus approach a difficult language with intellect and understanding developed and strengthened by a previous training in his mother-tongue ; he will acquire his subject-knowledge through the easiest of media—his own Vernacular. This must result in the saving of time, which could well be utilized in ensuring better success in the language-study. On the whole, it is expected that his studies will be rendered easier, and his youthful vigour and health will continue unaffected. We have here two different modes of working, each with its real or reputed advantages and disadvantages. Will it not be the best and fairest plan to put both in the scales of *actual* experience, and then judge them by results ? The advocates of the new system entertain no doubt that the changes proposed, which have the sanction of accepted axioms, must assert their superiority as contrasted with the plan sought to be superceded.

Suggestion as to making a tentative experiment.

31. As the proverb goes, there is nothing like a trial. If the confidence in the suitability of the present plan still remains unshaken, let that plan continue ; but it seems there can be no possible objection to experimenting on the new plan by temporarily placing a few well selected Institutions under its operation in different localities. The first and most important step, however, is, as already suggested, the delegation of the matter to a competent Educational Conference. (1)

(1) Since the above was written, the subject of Vernacular Instruction in our High Schools was brought to the notice of Government by our able citizen, the Hon'ble Mr. Pherozshaw Merwanji Mehta, at a meeting of the Local Legislative Council in August 1898. The question and the answer given by His Excellency the Governor are transcribed below :—

QUESTION.

Are Government aware that in the various High Schools in the Presidency, no instruction in the Vernacular Language is given to students taking up one of the classical Languages as their second language ? Will Government be pleased to introduce measures calculated to give such instruction in all classes up to the Matriculation Standard ?

ANSWER.

The reply to the first part of the question is in the affirmative, but translation from the Vernacular into English is taught to boys who take up a classical language, and so far instruction in Vernacular is given. As regards the second part of the question, Government, as at present advised, do not contemplate taking any further steps in the matter.

Chapter IV.

THE EDUCATION OF THE MASSES AND THE VERNACULAR LITERATURE.

The Government ought to aim at giving to the people of India education in Science (1) and in all branches of true knowledge through the medium of their own Vernacular Languages. . . . Indeed, it seems to His Excellency in Council impossible to suppose that the people of this country can ever be educated except through the medium of their own languages.—*The Government of India, re the Punjab University.*

It is neither our aim nor desire to substitute the English language for the Vernacular Dialects of the country (2).—*The Court of Directors.*

There is no instance in History in which one nation has voluntarily accepted the language of another in lieu of its own (3); nor is a process known by which a language can be acclimatised.—*Dr. Rajendralal Mitra.*

The Vernaculars of India were quite as capable of being invigorated by Sanskrit and Arabic, as European Vernaculars were by Latin and Greek.—*Sir W. Monier Williams*

We may yet see an awakening similar to that which recast the whole social and ideal life of Europe, when the thoughts of men of "light and leading" of the ages past and of the then present were communicated to its people, "in their own tongue wherein they were born." (4) . . . The great mass of people can never be truly regenerated until each Vernacular is made a fitting vehicle of carrying on that knowledge.—*H. B. Grigg.*

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(1) "The masses should be taught the facts of science, and especially those immediately connected with their future vocations, in the Vernacular, and a crop of much more sound and original minds would be gathered through efforts of that nature than could be produced through the round-about and practically impossible method of teaching the masses a foreign language before its treasures are disclosed to them."—*Dr. G. W. Leitner*, Punjab.

(2) "To force English on the untutored millions of India was, of course, impossible."—*Sir W. Monier Williams.*

"English may be spoken as an acquired language, but there is little chance of it superceding the lordly languages spoken for centuries by millons."—*R. N. Cust, Esquire.*

"It is folly to imagine that the rapidly increasing millions of South India can ever be English speaking, or depend mainly on English Literature."—*H. B. Grigg, Esquire, Director of Public Instruction, Madras.*

"It is futile to imagine that they (the present Vernaculars of India) can be superceded by the language of 50,000 Englishmen, who are excluded by native custom from intimacy with the Indian people, and by climate from making India their home."—*Sir James Peile.*

"English can never be the language of India."—*Mr. Muir, Principal, Benares College.*

(3) "Though we English speakers in Great Britain are by far the majority, we have not yet succeeded, after more than a thousand years of close contact with the Welsh people, in inducing them to adopt our own language."—*Sir W. Monier Williams.*

(4) "Every great movement which had intellectual or religious emancipation for its object in the past has made use of the language of the masses. The great Reformation in Germany and England went hand in hand with an expansion of the Vernacular Literature of those countries. The great movement inaugurated by Budh gave a powerful impetus to and allied itself with a free and more extended use of the Vernacular of the time."—*The Indian Social Reformer*, Madras, 24th July 1898.

"It is well-known that Gautam (Budh) disregarding the precedent set by all classical writers and thinkers in India, preached his doctrine to the people of India, in the language of the people and not in Sanscrit. . . . He worked for the humble and the lowly, his message was for the people, and he wished it to be conveyed to them in their own tongue."—*Vide* page 196, Romesh Chandra Dutt's History of Civilization in Ancient India, Volume II.

"If India is really to be enlightened, evidently it must be through the medium neither of Sanscrit nor of English, but of the Vernaculars, that is, Hindustani, Hindi, Bengali, &c."—*Professor J. R. Seeley.* "The Expansion of England," London, 1883, page 253.

32. Having, in the last two chapters, dealt with the question of secondary education, or rather the utility of a student's Vernacular language in ensuring a more rapid and successful study, it is now proposed to devote consideration to a stage of education, lower down in the scale, it is true, but covering a much larger area and representing the very first step,—the foundation in the structure of a national system of Public Instruction. In that connection, the Vernacular claims, and is very properly allowed by universal assent, an absolute and exclusive jurisdiction as medium of instruction. The unrestricted recognition of this essentially requisite medium in relation to the Primary course is, of course, not to be understood (1) as coming in conflict, or interfering in the least degree, with another important medium in our system of Education, *viz.*, the English language which has an equally paramount position in the 3rd or the highest stage,—the Collegiate studies. It may be accepted as an axiomatic truth that in the education of the masses, the Vernacular is the only possible and successful medium (2), and hence the desirability, nay the necessity, of so improving that vehicle of knowledge as to render it really efficient to fulfil its sacred function. Thus, the education of the masses and the Vernaculars are joined together as twins, going hand in hand, serving a most useful purpose in our social economy and national progress. The warm advocacy, accorded to them, breathing as it does feelings of genuine patriotism, is sometimes misinterpreted as savouring of neglect or discouragement of an extensive study of the English language or the spread of Higher Education. Nothing could be a greater mistake. Such an erroneous notion has to be

Primary Education.

Vernacular, the essentially requisite vehicle of knowledge for Primary Stage.

This unrestricted recognition of the Vernaculars does not conflict with English or Higher Education.

(1) "I am fully sensible of the value of the English language not only to individual natives, but to the country at large. But that language stands so firmly on its own merits that it need fear no rivalry from the Vernaculars. Its predominence is too secure to be affected by the spread of education among certain classes through the Vernaculars."—*Khan Bahdur Kazi Shahabudin, C.I.E.*

(2) "It goes without saying," observes the Hon'ble Dr. Duncan (Madras), "That the Vernacular languages are and must continue to be the medium of communication of knowledge to the masses of the people." The "*Hindu*" *of Madras*, 26th March 1898.

carefully guarded and strongly protested against; for, no enemy of our country could do us greater harm than to wish the flow of higher education to be obstructed or arrested in its course. Various theories exist (1) as to the relative merit and position of Primary and Higher Education; but, situated as we are, this much is perfectly certain that any injury to the cause of Higher Education means positive retrogression so far as our national advancement is concerned. Our educated leaders are, as elsewhere described by me, the torch-lights of the nation, the voice and brain of the country; in fact, they represent the life or the vital force in our national organism. A body, without life, must be as unpleasant as it is unprofitable, like a train without an engine, a carriage without the propelling power. "A nation's leaders," as well remarked by our learned Vedantic Scholar, Mr. Mansukhram Suryaram Tripathi, "are that nation's soul: by them it lives and moves. . . . The destinies of a nation rest in the hands of its leaders."

Statistics as to relative proportion of Primary and Collegiate Education.

We cannot, therefore, afford to be in any way indifferent to Higher Education; what has been achieved in that line is as yet a drop in the ocean—a mere particle of what our country needs. The following statistics obtained from what happened to be just ready at hand may not be uninteresting:—

Total Male Population of the Bombay Presidency.	1,38,41,959
No. of Students in Primary Schools in 1895 ...	4,84,107
No. of those who appeared at the Matriculation Examination of the Bombay University in that year	2,981
No. of those attending Colleges for higher education in do.	2,323

(1) "National Education, in its totality, may be likened to the beautiful structure in which we are now assembled. Primary education is as the plinth with the foundation broad and deep; secondary education is as the superstructure with its walls and pillars; high education is as the roof with the domes and towers. No part of the structure can be injured or neglected without affecting the safety or the usefulness or the beauty of the whole. And as the architects have bestowed care on all parts alike, so is the Government bound to attend equally and simultaniously to the three departments of education, high, elementary, or intermediate, preferring none to the others, but meeting even-handed measure to all."—*Sir Richard Temple, Bombay University Convocation*, 1878.

These figures speak for themselves! The number under primary instruction must rise several times before it can be said to have reached the limit recognised as maximum in the civilized countries of the world; and the extent of Higher Education is quite insignificant. (1) The latter, no doubt, requires considerable development, and all well-wishers of our country, whilst struggling hard for the development of the Vernacular literature and the education of the masses, cannot but stand up heart and soul, to see higher education advanced in a satisfactory manner.

English language highly useful and valuable.

33. The English language, irrespective of its intrinsic merit (2) as a living language of marvellous beauty, precision, force and elasticity, is the language of our Rulers, as well as that of the most influential section of the press and the enlightened leaders of the country. Our laws are originally framed in English, all discussions in connection with them are carried on therein; the important measures

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(1) "In the whole Presidency (of Madras) there are very nearly 15,00,000 young men between the ages of 20 and 24, and in all the Arts Colleges in the B.A. and F.A. Classes we have about 4,000 Students. It will be seen therefore that only ·26 per cent. or 26 out of every 10,000 young men of the age in which they should receive collegiate education are availing themselves of its benefits."—Address by Mr. S. Sathiavatham, M.A., at an educational gathering. *Vide The Hindoo* of Madras, 22nd September 1898.

(2) NOTE.—Dr. Johnson's Dictionary of the English Language published in 1755 had about 50,000 words; the Webster's Dictionary, edition of 1861, had 80,000; and the latest publication, "The Century Dictionary," edited by Professor Whitney of America, has 2,15,000 words.

"It (the English Language) stands pre-eminent even among the languages of the West. It abounds with works of imagination not inferior to the noblest which Greece has bequeathed to us; with models of every species of eloquence; with historical compositions, which considered merely as narratives, have seldom been surpassed, and which considered as vehicles of ethical and political instruction, have never been equalled; with just and lively representations of human life and human nature; with the most profound speculations on metaphysics, morals, Government, jurisprudence and trade; with full and correct information respecting every experimental Science, which tends to preserve the health, to increase the comfort or to expand the intellect of man. Whoever knows that language has ready access to all the vast intellectual wealth which all the wisest nations of the earth have created and hoarded in the course of ninety generations."—*Lord Macaulay.*

of Government are issued in English; the proceedings of our Higher Courts of Law and the University are conducted in the same tongue; and all Telegraphic communications have to be clothed in it.

It is the language in which the Railway Time Tables and Regulations are generally framed, in which all news from foreign countries reaches us and which in our commercial relations with foreign countries, plays an important part. With a knowledge of the English language, you can pass with ease in your travels, not only in the different parts of our own country, but pretty nearly all over the civilized world. The English language possesses a stock of knowledge on a variety of subjects to a wonderful extent; English, thus, gives us a key not only to its "rich and noble literature, but also to the entire thought of modern Europe;" you go into polite society, not only in the capital cities of India, but even in moderately sized Moffusil Towns, and the want on your part of a knowledge of English will make itself keenly felt in various ways. In fact, a knowledge of the English language is becoming in our land a necessary qualification for those wishing to move forward as useful citizens; and my own opinion is that for those who receive a good education through the Vernacular, even a moderate knowledge of the English language will be very beneficial and serviceable. But notwithstanding such extremely tempting charms, it is not to be expected that the majority of our people are in a position to avail themselves of the advantages of an English education. For these a sound system of instruction through the Vernacular is a necessity, which has received full and ample recognition from our British Rulers themselves. And moreover, a nation, the Vernaculars of which have not strength enough to be the recognized vehicles of knowledge in all subjects of study, cannot but be regarded as lagging behind in the march of civilization.

For the masses a sound system of Primary education through the Vernacular, a necessity.

34. In the celebrated Despatch of the Court of Directors of 1854, we find :—"Any acquaintance with improved European knowledge which is to be communicated to the great mass of the people, whose circumstances prevent them from acquiring a high order of education and who cannot be expected to overcome

Instructions of the Court of Directors as to the Primary Course.

the difficulties of a foreign language, can only be conveyed to them through one or other of these vernacular languages." That this education was to be eminently practical in its character, and wide and extensive in its operative effect, is clear from the following :—

"We have also received most satisfactory evidence of the high attainments in English literature and European science which have been acquired by some of the Natives of India. But this success has been confined to but a small number of persons, and we are desirous of extending far more widely the means of acquiring general European knowledge of a less high order, but of such a character as may be practically useful to the people of India in their different spheres of life. To attain this end, it is necessary, for the reasons which we have given above, that they should be made familiar with the works of European authors and with the results of the thought and labour of Europeans on the subject of every description upon which knowledge is to be imparted to them, and to extend the means of imparting this knowledge must be the *object* of any general system of education"

Further, "our attention should now be directed to a consideration, if possible, still more important and one which has been hitherto, we are bound to admit, too much neglected, namely, how useful and practical knowledge, suited to every station in life, may be best conveyed to the great mass of the people who are utterly incapable of obtaining any education worthy of the name, by their own unaided efforts, and we desire to see the active measures of Government more especially directed, for the future, to this object, for the attainment of which we are ready to sanction a considerable increase of expenditure." (1) . . .

"Schools whose objects should be not to train highly a few youths, but to provide more opportunities than now exist for the acquisition of such an improved education as will make those who possess it more useful members of society in every condition of life, should exist in every district in India."

(1) "In Wetsern Countries it is felt that the State owes it to all its citizens to provide Primary Education for them, either free of cost, or at as cheap a cost as possible. In India the Tax-payer is not yet prepared to accept that principle, but it is one which must be kept in view, because no citizen can fully discharge his duties to his neighbours and the State unless he has acquired the power of reading, writing, and reckoning figures."—Sir W. Lee-Warner, K.C.I.E., C.S.I., M.A. *Vide* "The Citizen of India," page 175.

35. It is also clear that the Court of Directors meant these Vernacular Schools to be progressive in their usefulness and to reach a high standard of efficiency in due course of time.

Para. 44 of the Despatch runs thus :—

"We include these Anglo-Vernacular and Vernacular Schools in the same class, because we are unwilling to maintain the broad line of separation which at present exists between schools in which the *media* for imparting Instruction differ. The knowledge conveyed is, no doubt, at the present time, much higher in the Anglo-Vernacular than in the Vernacular Schools, but the difference will become less marked, and the latter more efficient, as the gradual enrichment of the Vernacular languages (1), in works on education allows their schemes of study to be enlarged and as a more numerous class of School Masters is raised up, able to impart a superior education." The practical effect of these instructions is thus alluded to by Her Majesty's Secretary of State for India in his Despatch of 1859 on the subject of Education in this country :—

"Measures for the extension and improvement of Vernacular Education had been some time in progress, with more or less activity, in different parts of India, when the Home authorities in 1854 declared their wishes for the prosecution of the object in a more systematic manner and placed the subject on a level, in point of importance, with that of the instruction to be afforded through the medium of the English language." (2)

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(1) "When the child could read French, the Gentlemen of Port—Royal sought for him books within the range of his intelligence. There was nothing suitable in French, so they set to work to produce translations in good French of the most readable Latin Books. . . . In this way they gallicised the Fables of Phædras three comedies of Terence, and the familiar letters (Billets) of Cicero.

Quick—Essays on Educational Reforms, 1890, page 184.

(2) "Has Vernacular Education been improved in recent years to so great an extent as to deserve to be placed on a level with the instruction that is being afforded through the medium of the English language? Obviously, the answer to this question cannot be other than in the negative. . . . Unfortunately, there has been next to no effort put forth to bring into existence any efficient organization capable of effectively inducing the *Improvement of Vernacular Education* so as to place it, in the language of the Despatch of 1859, on a level, in point of importance, with that of the instruction to be afforded through the medium of the English language."—*Opinion of Professor M. Rangacharier. Vide The Hindu of Madras*, 26th March 1898.

36. A more admirable or suitable programme for the satisfactory education of the masses of this land could not have been conceived. The directions as to the character of that education are so well expressed as to leave no room whatever for doubt or misinterpretation. It was to be "practically useful to the people of India in their different spheres of life," "such an improved education as will make those who possess it more useful members of society in every condition of life," "useful and practical knowledge, suited to every station in life." Literary as well as technical instruction, adapted to the wants of the people and a progressive society was, no doubt, in view. The whole tone of Vernacular Education was to be raised; in fact, it was to be "a superior education," and Vernacular literature was to be enriched so as to be a really fit vehicle of knowledge for those higher studies. The response, however, which so excellent a scheme met with in its execution, was admittedly discouraging. Writing in 1869, the Government of the late lamented Lord Mayo (1) thus described the situation :—

The System admirable, but its working not satisfactory.

Opinions as to the defects requiring amendment.

"In their well-known Despatch of the 19th July 1854 on the subject of education in India, the Court of Directors referred with approval to proposals that had been made for teaching practical Agriculture. Quoting the words of Dr. Mowat, they said that there was no single advantage that could be afforded to the vast rural population of India that would equal the introduction of an improved system of Agriculture. Unfortunately, the means of obtaining Agricultural Instruction are no better now than when the Despatch was written fifteen years ago." . . .

"It cannot be denied that Indian Agriculture is in a primitive and backward condition, and we think that it must be admitted that the Government has not done for its improvement all that it might have done."

37. In his Report on the Improvement of Indian Agriculture, published in 1893 Dr. Voelker, Consulting Chemist to the Royal

(1) *Vide* pages 338 to 341, Indian Agriculture as seen by Robert Wallace, Esquire, F. L. S., F. R. S. E., &c., Professor of Agriculture in the University of Edinburgh.

Agricultural Society of England, who had been specially invited by the Government of India to submit that Report, after making the requisite local investigation in this country, writes :—(Page 379) "There is very little doubt that the tendency of education in the past has been too much in a purely literary direction, and that it has been diverted from, rather than turned towards, the staple Industry of the country, viz., Agriculture."

38. Sir John Strachey, in his work "India" (London, 1888), says :—

Page 170 "Little has hitherto been done in India towards the establishment of Institutions for technical instruction, but a beginning, especially in Bombay and Madras, has been made. This is a want which in England is only slowly beginning to be supplied, and we see in India the reflection of English indifference. The neglect is especially to be regretted in regard to the chief of Indian arts, Agriculture. The recent establishment of Agricultural Departments to which I shall again refer, will, it may be hoped, lead to the recognition of the importance of applying scientific knowledge to the processes of Indian Agriculture and to the provision of means of agricultural instruction."

39. Speaking at the Bombay University Convocation, 1886, the Hon'ble Sir James Peile observed :—"Our elementary and middle school course has no regard to Technical Instruction . . . . . Nothing that is not quite fragmentary is being done to develop the intelligence of our Industrial Population as such." And next year, the Hon'ble Sir Raymond West, availing himself of a similar occasion, said :—"The subject of Technical Education has hitherto been, I must say, somewhat lamely handled, as far as we can gather from what has appeared in public by the Government. . . . So much has been talked and so little has been done in this great and important sphere of activity! But I hope that ere long something like a practical beginning will be made."

40. The Hon'ble Mr. Chimanlal Harilal Setalwad, B.A., LL.B., in his Paper on Primary Education (1896), expressed his opinion that, "The Primary Schools must also lead to technical schools and not only to secondary schools of a purely literary character as they do at present ; and for that purpose should provide such Instruction as

would prepare the children to take full advantage of advanced technical instruction in higher institutions. . . . My own idea is that after the 4th standard, there may be different Branches with certain common subjects and others special to each Branch. The Branches, I should think, be Industrial, Commercial, Agricultural, and Upper Primary, according to the needs of different localities."

Rao Bahadur Gopalji Surbhai Desai recommends that "the course of Instruction in all kinds of schools (Primary) should be raised, so as to satisfy the demands of the people in their different spheres of usefulness."

Khan Bahadur Kazi Shahbudin, C.I.E., considers that for pupils who cannot prosecute their studies beyond the primary stage, the Vernacular Course of Instruction should be "superior both in quantity and quality, so that when they leave the Vernacular Schools, they may carry with them improved minds and some useful knowledge. It is rather hard for the masses that they should not be enabled to acquire better knowledge than they now can through their own Vernaculars. . . . It appears to me worthy of consideration whether Vernacular High Schools should not be opened at Central places."

"Another defect in the present system is that the primary education or I should say education given through the Vernaculars is in no degree complete in itself."

The Ahmedabad Association, in their Memorial to the Education Commission, urged—"that the scope of Instruction given in the Vernacular schools ought to be much widened, so that it may be within the reach of those who have not the means of studying English, to obtain the benefit of higher education through the Vernacular."

41. Looking a little beyond our own Presidency, it will be sufficient to quote below an extract from the Report to the Education Commission from the Provincial Committee of the Central Provinces, which also discloses a rather gloomy situation as regards technical education. Page 106, para. 181. "While we recognise the immense advance that has been made in our Government Rural Schools, we still think that these schools

Defect No. 3 in the character of the primary education given and the remedy.

are too literary and tend to withdraw those who attend them from the agricultural and mechanical arts which the country so much needs. We do not wish to divert the workers with their hands from the work which their fathers have done before them. We do not wish to see the country overrun with pleaders, writers and claimants for literary work when the best authorities have pointed to the great need of industrial development. We wish to aid industry to work more intelligently. We recognize the enormous superiority of the educated workman as the best contribution that Government can make to technical education. We wish to bring brains to bear upon sinews and muscles. Hence we would still further revise and enlarge our primary course in view to more attention being paid to the elements of natural and physical science, and their application to agriculture, health, the industrial arts, manual labour, and the uses of the tools of the principal crafts, including drawing, music, and gymnastics. We are well aware that even from the course so revised too much must not be expected, because India as yet lacks the literature to which elsewhere such a course would directly lead. But this lack of a higher literature is itself an argument for making the primary course as excellent, that is, as complete in itself, as it can be. Moreover, we may hope that if sound primary education is ever placed on an adequate footing, it will create a demand for and lead to a supply of that kind of literature of which the absence is so often and so justly deplored. We think that primary schools should be strictly confined to primary instruction as above defined, that they should give something complete in itself, that they should not attempt to teach English or any foreign language. And looking to the fact that industrial development has been declared to be the great need of the country, we think that they should not take their main tone from the higher school and University system, but be connected, by scholarships open to real ability, with such some central college as the *Ecole centrale des arts et manufactures* of Paris or corresponding institutions of other countries."

Instructions of the Government of India to the Education Commission.

42. In their Resolution sanctioning the appointment of Sir W. W. Hunter's Education Commission, dated the 3rd February 1882, the Government of India, fully recognising the prevailing state of things, drew the parti-

cular attention of the Commission to the subject of Primary Education, in these words :—

"8. It is the desire of the Governor General in Council that the Commission should specially bear in mind the great importance which the Government attaches to the subject of primary education. The development of elementary education was one of the main objects contemplated by the Despatch of 1854. Attention was specially directed in that Despatch to the question of 'how useful and practical knowledge, suited to every station in life, might be best conveyed to the great mass of the people, who are utterly incapable of obtaining any education worthy of the name by their own unaided efforts,' and it was desired that 'the active measures of Government should be more especially directed for the future to this object.' Although the matter was thus prominently and at the outset pressed upon the attention of the Indian Administration, there can, His Excellency in Council believes, be very little doubt that owing to a variety of circumstances, more progress has up to the present time been made in high and middle than in primary education. The Government of India is not disposed in any way to regret this advance. It would be altogether contrary to its policy to check or hinder in any degree the further progress of high or middle education. But the Government holds that the different Branches of Public Instruction should, if possible, move forward together, and with more equal step than hitherto, and the principal object, therefore, of the inquiry of the Commission should be the present state of elementary education throughout the Empire, and the means by which this can everywhere be extended and improved."

"Para. 14. It is very important that schools of this class (Primary) should be made as attractive as possible to the classes of the population for whom they are intended. By teaching subjects to which the parents attach importance, children will be more readily drawn into the schools (1) and it will not then be difficult to graft on to those more popular branches of Instruction others which are more valuable from a sound educational point of view. It is believed that the

(1) "To some extent, however, the complaint indicates another danger, and shows how necessary it is that the elementary education provided for the masses should be of a kind which they recognise as practically useful to them in their ordinary occupations."—*Education Commission Report*, page 127.

great hold which, in many parts of the country, the indigenous schools have acquired on the masses is due to the *quasi*-technical character of the instruction given,—the son of the ryot or the petty trader being taught, though often in a mechanical and unintelligent way, things likely to prove useful to him in his daily after-life. It would seem that in some Provinces, the advantages of this system have been overlooked in favour of a scheme of elementary education more in accordance with European methods and standards."

Recommendations of the Education Commission.

43. Agreeably to these instructions, the important recommendations made by the Education Commission were :—

(1) Primary Education be regarded as the instruction of the masses through the Vernacular in such subjects as will best fit them for their position in life, and be not necessarily regarded as a portion of instruction leading up to the University.

(3) While every Branch of Education can justly claim the fostering care of the State, it is desirable in the present circumstances of the country, to declare the elementary education of the masses, its provision, extension and improvement, to be that part of the Educational System to which the strenuous efforts of the State should now be directed in a still larger measure than heretofore.

(4) An attempt be made to secure the fullest possible provision for an extension of Primary Education by Legislation suited to the circumstances of each Province.

(9) The Standard of Primary Examination in each Province be revised with a view to simplification, and to the larger introduction of practical subjects, such as native methods of Arithmetic, Accounts and Mensuration, the elements of natural and physical science (1)

(1) "It is to Physical Science that we owe the greatest triumphs of man over inanimate nature ; and to it is mainly due the vast expansion which civilization has attained in the last hundred years. It has been successfully applied to the advancement of innumerable industries, and has especially opened to us a better knowledge of our mineral resources and of the means of multiplying the earth's productive powers.

To Physical Science is also due the faculty which we now possess of the rapid transmission of thought, which makes no account of distance, and which has linked together into one vast market the farthest-severed trade centres of the world. This power is every day tending to a wide-spread diffusion among the masses of the fruits of the earth and the products of industry, and therewith to the increase of the general welfare of mankind. . . . There appears to be no limit to the possible conquests of Physical Science." The Honorable W. Justice Inns, Madras University Convocation, 1876.

and their application to agriculture, health and the industrial arts; but no attempt be made to secure general uniformity throughout India.

(28) Primary Education be declared to be that part of the whole system of public instruction which possesses an almost exclusive claim on local funds set apart for education, and a large claim on Provincial Revenues.

44. The said recommendations were approved by the Government of India in their Resolution, dated 23rd October 1884, in para. 16 of which they observe:—"It is here only necessary to remark that the curriculum of a Primary School ought, while not neglecting the preparation necessary for any pupils who may be advancing to the secondary stage, to aim principally at imparting instruction calculated to be of real practical benefit to the bulk of the children whose education will terminate with the Primary Course. This is the object which the Commission had in view in framing their recommendations 1, 9 and 12."

Stamp of approval by the Government of India.

45. The above recommendations of the Education Commission, with the stamp of approval affixed by the Government of India, only mark once more the appreciative confirmation of the course for Primary Education laid down by the Court of Directors nearly half a century ago. What we want is due and sustained action to give full effect to a settled programme; and it is earnestly hoped that practical steps will follow. It will be seen that the necessity for promoting the technical side of the Primary Course has received full and unqualified acceptance. The belief hitherto has been, and no doubt rightly, that the Primary stage only represented a lower stage of the final University Course. The tree of knowledge had its ascent provided by one straight trunk of literary course, without any bifurcating branches representing technical instruction; and the result was that, with the exception of the small number who were fortunate enough to reach the top, students fell off in their ascent, at different points of the literary course, and the knowledge they actually received, though beneficial as far as it went, as knowledge always is, was merely a fragment of a non-completed course, and could not be said to be such as would,

Prominent defect of the system of Primary Education hitherto followed.

in the language of the Court of Directors, prove " practically useful to the people of India in their different spheres of life," and " make those who possess it, more useful members of society in every condition of life." This want of bifurcations in the attainment of technical knowledge has always been keenly felt and regarded as a serious defect in our system of Primary Education. Let there be entire freedom of choice as to the kind of education which a boy will receive ; let his guardians and himself decide upon his future career and shape his education accordingly. Is it not a waste of labour, time, and money, to teach a boy who is destined to be an actual tiller of the soil or a carpenter, things which by no stretch of the imagination can prove of use to him in his future avocation ? Up to a certain point, the trunk of the tree of knowledge will, of course, be common to all beginners (1), whether they are intended for a literary career or any other—whether they are meant for a University course or not ; but after reaching that point, bifurcations must be effected and suitable standards fixed for each of the large departments, which have to be provided for, such as Agricultural, Commercial and Industrial, the Upper Primary continuing the ascent on the main trunk itself, which has hitherto represented, and will still represent, the literary department. A regular system of higher technical education has also to be devised, important centres being selected for the location of the special Institutions, designed to convey the requisite knowledge. Practical details can be appropriately settled by a committee of experts carefully selected (2).

Bifurcations needed, such as Agricultural, Commercial, and Industrial.

(1) " They could not build a superstructure of art, of science, of commerce, or of technical education unless they had a sound and solid base on which to build. . . . Before anykind of special instruction could be engrafted in the minds of the people, their intellects must be awakened, their capacities must be called forth, and they must be prepared to receive that instruction. They could not have high commercial education unless they had a solid basis of elementary education upon which to build." Sir John Gorst, speaking at a conference on Commercial Education.—*Vide* the *Hindu* of Madras, 4th August, 1898.

(2) " The old customary methods of industry cannot compete with the machinery, the combination, and the enterprise by which the cheap products of European manufacture are made to flood the Indian market. Our cloth-weavers, our metal-workers, and other industrial workers are degenerating fast ; and it is necessary that, as early as possible, they must all be brought together so as to find scope for their

46. The question of agricultural education is one which affects a very large percentage of the population in our Presidency. The cultivation of the soil is the most essential and extensive of our industries, and it is meet that the work of organising a suitable course of instruction in this department should receive early consideration (1). I would

Agricultural Education.

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hereditary aptitudes in the new and improved forms of industry by which European products are raised. A few and scattered attempts have been made in this direction, but these have been but very partially successful, and sometimes they have proved failures because they are unable to keep pace with the improved methods which are meanwhile discovered and employed in Europe. It is only by having a well-organised system of technical education in this country that we can ensure scope for the intellect of the land, educated and trained under a well-devised system of general education, being directed to the arts and industries of the country and thereby resulting in the discovery and successful application of such suitable appliances and methods of working them as will advance our own material prosperity. The industrial downfall of India has been brought about by the medieval separation between intellect and handicraft skill. In consequence of the neglect of the general education of our artisan classes, they got entangled into the miry ruts of routine and have been crushed by the competition of the products of the improved and daily improving machinery of Europe. Hence, the sense of hopeless ruin and desolation has seized our industrial and artisan classes, and they are beginning to seek for their material improvement by sending their children to our schools to acquire a literary education and compete for Government employment as clerks, magistrates, schoolmasters, &c. This is certainly calculated to do this country the gravest possible harm in the near future. No doubt, India is mainly an agricultural country; but there is no reason why she should not be a manufacturing country, too. There was a time when India was the foremost country in the world for manufacturing industry, and our manufactures were exported to the most distant countries of the globe and were in great demand there. The contrast between that state of prosperity and the present era of industrial decay and disaster is awful to contemplate, and it is necessary to seek a speedier remedy. We think no time should be lost in devising a suitable system of technical education. We confess we have not much faith in the present futile system of Government technical examinations for the purpose of restoring our industrial prosperity and efficiency. When even in England men are daily engaged in raising the cry of improved technical education, how much more should we in India raise our voice for the similar cause here. Let us hope that speedily something will be done by Government towards inaugurating a system of technical education in this country. It is one of the sorest needs of the day, and the people of India will bless their Rulers if they will have the generosity and foresight to see that something is done to supply it."—*Vide The Hindu* of Madras, dated 21st September 1898.

(1) "Of all Branches of Indian Industry, Agriculture, which constitutes the occupation of the great mass of the people, is by far the most important. We believe it to be susceptible of almost indefinite improvement." . . . "It is hardly too much to say that scientific knowledge of Agriculture in India has at present no existence. The common belief has been that the natives of this country can,

invite particular attention to Dr. Voelcker's Report (Appendix C, paper No. 9) which treats rather in detail the question of Agricultural Education. It will be seen (page 378 of the Report) that "the Agricultural Departments have had put upon them specifically the duty of 'taking positive measures for the education of the rural classes in the direction of Agriculture'. . . . As Sir Edward Buck very precisely laid down at the Simla Agricultural Conference in October 1890, it is no longer a matter of *choice* whether Agricultural Departments will take up the subject of Agricultural education or not, but it is a *positive* duty which they cannot evade, unless relieved by the Secretary of State from the obligations put upon them. The importance of the subject was reflected in the prolonged and close attention which the Agricultural Conference at Simla gave to it, and in the several Resolutions which were passed upon that occasion." The latest official publications available show that the matter is engaging the attention of the Bombay Authorities.

Commercial and Industrial departments.

47. The Commercial and Industrial (1) departments come next in importance. The elements of natural and physical science and their application to health and industrial arts have been

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in respect of the process of agriculture, derive little or no benefit from any instruction which European Science can give them. Such a belief rests perhaps upon observation of the obvious progress which has been made in many of the elementary requirements of Agriculture in regard to tillage, rotation of crops and so forth! But it has often been lost sight of that this sort of knowledge is only rudimentary and empirical, and that recent experience in all parts of the civilized world shows conclusively that there is no branch of industry in which the effects produced by the intelligent application of Science are more certain or more remarkable. We cannot doubt that when the light of Science has been properly brought to bear upon Indian Agricultural experience, the results will be as great as they have been in Europe."—Lord Mayo's Minute, dated the 6th April 1870, *vide* pages 338-340, "Indian Agriculture as seen by Robert Wallace, Esquire."

"Our Report has clearly shown how greatly Agriculture preponderates over all other interests and employments in which the people of India are engaged; how essential we think it that technical agricultural knowledge should be called in to enable the productive power of the soil to be applied in the most effective manner, not merely to add to the wealth of the country, but to secure a food supply which shall keep pace with the increase of population."—Report of the Indian Famine Commission, Part II, page 139.

(1) "With cheap raw material, cheap labour and many classes of the Native Population, patient, ingeneous, and endowed with a fine touch and delicate organization, I see no reason by the interchange between India and Europe should be confined to Agricultural produce against manufactures, and why in course of time manufacures of certain description, where India has a natural advantage, should not enter largely into her staple exports."—Mr. Laing, 1862.

specially recommended by the Education Commission, as practical subjects to be included in the Primary Standards. It is not known what precise action has been taken in this respect. Our Victoria Technical Institute and other Technical establishments at Bombay and some of the Moffusil Towns as well as the orders issued from time to time sufficiently indicate the anxiety of the Bombay Authorities to push forward technical instruction in a way considered most suitable. The mercantile community forms a comparatively large and significant factor of the population, and a regular course of commercial education should be highly attractive and command cordial appreciation. It finds a prominent place in the educational system of most of the civilized countries. The elementary principles of Political Economy will doubtless form a part of this course, and a graduated series of Manuals may prove very serviceable.

Are the Vernaculars fit, or likely to be fit, Vehicles of knowledge?

48. All this enlargement of Vernacular Studies presupposes the preparation of the requisite Vernacular Text Books; and this brings us to a consideration of the frequently asked question, are the Principal Vernaculars of this Presidency, Marathi, Gujarati, and Canarese, fit, or likely to be fit, Vehicles of knowledge, Scientific and literary, which has to be conveyed agreeably to the revised programme? No hesitation need be felt in at once returning an affirmative answer. The question seems to have been a common one for the whole of India, and to Bengal should be accorded the credit of being the first in the field to give an exemplary answer. The following extract from a communication of the Government of India penned thirty years ago will make this clear :—

Answer in the affirmative.

No. 558 dated the 19th September 1868, re the Punjab University.

"The system of the Calcutta University is in some degree founded on the assumption that true knowledge in its higher Branches can only be imparted to the people of India through the English language, and that the only literature that has any real value is that of Europe. But both these assumptions are open to question. The present difficulty of conveying scientific truth through the Vernacular languages of India is indisputable, but there is no reason to doubt that this difficulty may be gradually overcome. In Bengal, so far as the power of the language to express scientific ideas with precision

is concerned, this difficulty has been to a great extent overcome already. Within the last thirty years, the Bengali language has undergone such a process of improvement and expansion that, in the opinion of those best able to pronounce a correct judgment in the matter, it can now without difficulty be made the instrument of conveying knowledge, and the vehicle of accurate thought and abstract ideas."

Recognition of the advanced state of the Bengali Vernacular.

At the Annual Prize Distribution of the Duff College at Calcutta, on the 30th November 1896, Sir Alexander Mackenzie, the Lieutenant Governor of Bengal, acknowledged the satisfactory state of the Bengali language which "had been enriched by the works of many distinguished Native Scholars."

49. Mr. Cust (1), who seems to have made the subject of Oriental languages his particular study, characterises several of the Indian Vernaculars as "Magnificent Vehicles of Speech," and "capable of expressing any human conception and being the vehicle of the highest scientific education."

Opinions in favor of the capability of the Indian Vernaculars.

The opinion of Sir W. Monier Williams as to the capability of the Indian Vernaculars heads this chapter. His observations (2) on the subject may be usefully quoted here :—

"In Henry the VIII's time, there was scarcely anything to read for an Englishman who could not read Latin, ... And what happened in England? The Vernaculars of the people instead of decaying drew vitality and vigour from the very language whose influence for a long time kept it in abasement. Strengthened and enriched by Latin and recruited from other sources, English has grown into the most sturdy, copious, and effective of all languages. Lord Macaulay did not seem to see that the same process had been going on in India."

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(1) *Vide* page 165, Linguistic and Oriental Essays, Fourth Series, London, 1895.

(2) *Vide* page 288, Madras Provincial Committee's Report to the Education Commission.

Here is the opinion of the late Sir Bartle Frere, one of our most popular Governors, who first came to Bombay as a young Civilian and had to make himself acquainted with the Vernacular of each District he was put in charge of :—

"No one estimates more highly than I do the importance of Vernacular education: no one has a higher estimate of the capabilities of some of our Indian Vernacular languages; no one has higher hopes as to the space which they may one day fill in the literature of India. But I would remind you that the improvement of any Vernacular language which has but a scanty modern literature of its own, must depend mainly on the cultivation of classical languages. However great the natural capabilities of a language, it cannot become suited to the wants of a highly civilized people except by the cultivation of those languages which already have a classical literature of their own. It was the men who learnt and lectured and examined in Latin and Greek who matured the modern English and German, French and Italian, out of the illiterate dialects which served the purposes of our ruder ancestors, and it is only by a similar process that we can hope to see the Vernacular languages of modern India occupy the same position of popular usefulness and permanence."

It will be seen from paper No. 26, Appendix D, which contains brief extracts from a lecture by Mr. Hart, the late Chief Judge of our Court of Small Causes, on the Vernacular literature, that after a most careful review of the history of the English language, the conclusion he came to was that "India would not appear to labour under any special disadvantage that makes impossible in her case, the existence of a Vernacular literature that has been found to be a possibility in England. . . . You (the people of India) possess the traditions of a glorious past in a classical antiquity."

Our classical language—Sanskrit. Its superiority over other classical languages.

50. This felicitous reference to our classical language—Sanskrit—may well be availed of here to add a few words in that connection. It is a well recognised fact that Sanskrit is a copious and powerful language, superior to even Greek and Latin in some

respects (1). She is the mother of our Vernaculars; and if, as is clear, from a study of the rise and progress of some of the languages of Europe, (2) their classics—Greek and Latin—helped the improvement

(1) "The Sanskrit language, whatever may be its antiquity, is of wonderful structure, more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either."—*Sir William Jones.*

"No one, I hope, would ever dream of comparing it (the Latin Language) as a language in completeness, in copiousness, or in all that constitutes the perfection of language, with Sanskrit."—*Sir Bartle Frere.*

"Unsurpassed in copiousness, in precision, in flexibility."—*Sir Richard Temple, Bart.*

"The Indian Alphabet is a marvellous and magnificent phenomenon, quite unrivalled in the world."—*Dr. Cust.*

"As you examine the structure of Sanskrit as a language, its capacity for brevity and expansion, the facilities it affords for translating new notions into idioms suited to the country and the classic modes in which it has been handled by such men as Walmiki, Kalidas and Bhav Bhuti and others, you will cease to ridicule the tradition which speaks of it as the language of the Gods."—*The Hon'ble Justice Sir Mathu Swami Iyer.*

(2) "The history of nearly all literature of the past shows that translations, adaptations and imitations are the necessary preliminary stages in the growth of all national literatures. Very few literatures have started forth like Minerva, full grown and armed from Jupiter's head, with almost perfect literary masterpieces at its very threshold. Greek literature, with its two grand epics, the Iliad and the Odyssey at its very early dawn is quite an exception. The Roman literature for centuries was nothing but a collection of tentative and crude imitations and adaptations from the Greek, and Ennius and Nævius and Plautus were but the echoes of the great Greek dramatists and poets. Even at its best it was modelled almost entirely on Greek, and Virgil, Horace and Cicero avowedly laid before themselves as models to be directly copied Homer, Demosthenes, Sappho and the other lyrists of Hellas. The history of our own literature shows the same, and this gives hopes for the future of the vernacular literature of India. The crude poems of Occleve and Skelton and the other writers up to the time of Elizabeth led to nothing till the period of the translators from the Latin and Greek classics laid a solid foundation for the literature of that renowned literary epoch. North translated Plutarch, and his translation inspired some of the plays of Shakespere. The English mind drew fresh strength by coming in contact through translations with the master-minds of ancient Greece and Rome. Much the same was the case after nearly two centuries with German literature. Up till the end of the last century, Germany had not much by way of literature to boast of, but the Romantic writers began its real literary epoch by translating and drawing inspiration from the classic models. We mention this to show that the present tendency in Mahrathi and Gujarati to translate and adapt is by no means an unhealthy or discouraging sign. On the contrary, it indicates the first essential stage in the formation of a vigorous literature. But till such a literature is properly and really formed, we would advise the advocates of the vernaculars to wait for their introduction into the higher curricula of University studies. In these latter the great models of

of their vernaculars, it is not unreasonable to conclude that, with a superior classic like Sanskrit, the Indian Vernaculars are sure to nourish themselves well and attain to a satisfactory development. We know that both in France and England there was a time not very remote, when their respective literatures had to rise from next to nothing—literatures which have now become marvels of the age. With such precedents, and with the well-known course of events and affairs in this world, as tersely put by Mr. Hart, "What hath been, shall be, and what men have done, men yet may do," the Indian Vernaculars have no cause to despair. We shall certainly hail the day when it will be considered practicable to convey the highest knowledge in all branches by means of our own Vernaculars. As it is, there is no reason whatever to doubt their capability to be the efficient vehicles of *Rudimentary* knowledge which is all that the Primary and Secondary courses of Instruction are designed to convey.

Bright prospects for the Vernacular languages.

51. The next question which naturally arises is, how to bring into existence the requisite improved literature? Notwithstanding the very careful provision made by the Court of Directors in their Despatch for the enrichment of the Vernaculars "by translations of European Works or by the original compositions of men whose minds have been imbued with the spirit of European advancement," the result up to now has not been quite satisfactory,

How to bring into existence the requisite improved literature.

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universal literature, masterpieces which have stood the test of time and criticism of ages, should be made the subject of close study by the Indians who should then try to adapt and imitate them in their own tongues. At present we do not see that among the translations published in large numbers every year, any of the great classics have been handled. Homer, the great Greek tragedians, Herodotus, Virgil, Dante, and the other classics of the world are sealed books to the Indians reading no languages but their own. Even Shakespere has been translated only piecemeal. Nor is there any tendency visible just now to handle these classics and render them accessible to the Indians. In the present list we find several good works translated; but none of them can be called a classic. We are glad to see that Bernier's delightful and instructive Travels in the Mogul Empire in India have been placed before the Gujarati reader by the Gujarat Vernacular Society. This society is doing very useful work in this line of translating and adapting good books, but we would offer it one word of advice as to considering the benefit of translating the great classics of the world's literature into the vernacular."—*The Advocate of India*, Bombay, 11th October 1898.

or such that it may be accepted as realizing the object in view to its full, though it must be admitted that considerable progress, more or less unequal, has been made. At this distance of time, we need concern ourselves more with the future than the past, and therefore let us look ahead and see what may be done to ensure better success in this respect.

52. The short-comings of the past, however, may well be utilised as conveying warnings and hints useful for future guidance. One thing has been prominently brought forward, *viz.*, that the want of demand most adversely affected the question of supply. (1)

The argument, that the want of demand, adversely affected the question of supply, considered.

There is evidently much force in this argument. As we have seen, the anxious expectation of the Court of Directors for the organization of an advanced system, literary as well as technical, of Verncular Education, was not realized to the extent desired, and the unfortunate result has been that the demand for an improved Vernacular literature, which was hoped to be the basis of an abundant supply, never came into existence. And as a further consequence, we are confronted with the miserable spectacle of our Vernaculars being so far barren of a literature worthy of the name, that the University persistently re-

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(1) "The instruction of the masses and the promotion of Vernacular literature which would act reciprocally upon each other have not received sufficient attention from those who have benefitted most by higher education. The education of the masses will naturally provide a larger field for literary effort."—*The Rev. R. A. Squires.*

"The Association feels assured that until the means of imparting higher education, through the Vernacular, are suitably provided, a useful Vernacular literature will hardly ever attain to any considerable measure of development."—*Ahmedabad Association Memorial to the Education Commission.*

"It is true that there is at present no literature in the Vernacular on higher branches of knowledge. But we may be sure that the supply will come with the demand, and also that it will increase with it, though in the beginning the State would have to do much towards supplying the want."—*Khan Bahadur Kazi Shahabudin.*

"Unless higher education be imparted through the Vernacular, there will be no increase in the stock of Books in the Vernacular. In fact, there will be very little demand for it."—*Chintaman Hari Sohoni, Esquire.*

fuses to allow them a place in the Course of Higher Education. Indeed, a sympathetic European friend (Appendix D, paper No. 26) while regretting this unsatisfactory state of the Vernacular literature of India, seriously advises us to see "to what extent and in what way the reproach may be taken from her (the country) of sitting dumb among the nations of the earth, while her sons learn all that is best, and worth knowing, from foreign teachers, in a foreign tongue." He adds, "There is not in the Vernacular languages of India a literature sufficient in quantity and quality, to afford material for a high class education such as an University should give, and without works of this standard as a Medium of Tuition, higher education in the Indian Vernacular languages is impossible." In their Report to the Education Commission, the Provincial Committee, Central Provinces, observe :—"We are well aware that even from the course so revised too much must not be expected, because India as yet lacks the literature to which elsewhere such a course would directly lead." Here we find ourselves rather in a delicate and awkward predicament. There is the much deplored absence of a system of education which will create a demand for an improved literature, and the resultant want of such literature is regarded as a "fatal objection" to carrying out a "reform in the scheme of higher education that shall admit the Vernacular languages to a place in the University Curriculum." This is what a well-conducted journal on this side of India justly characterises as arguing in a circle.

Supreme importance of an advanced national literature.

53. A satisfactory National Literature is invariably an index of intellectual advancement. (1) Carlyle, referring to a "country which has no national literature or a literature too insignificant to find its way abroad,"

"Create a taste or demand for what you wish to supply. We cannot have the cart before the horse. The State can create a demand by developing a judicious and practical system of education."—*Goverdhanram M. Tripathi, Esq., B.A., LL.B.*

"We may hope that if sound primary education is ever placed on an adequate footing, it will create a demand for and lead to a supply of that kind of literature of which the absence is so often and so justly deplored."—*Report to the Education Commission by the Provincial Committee, Central Provinces. Vide* para. 41 Supra.

(1) "Language (is) a type of the understandings of which it was the creation and the image."—*Shelley.*

"Style is physiognomy of the mind, and a safer index to character than the face."—*Schopnehauer.*

"Good sense is the source and origin of good style."—*Horace.*

"The genius of a language is the genius of the race that speaks it."—*The Indian Social Reformer*, Madras, 25th September 1898.

"Literature is the thought of thinking souls."—*Carlyle.*

"The study of literature is in a sense the study of mankind."—*Grigg.*

says, (1) "the character of the people has no symbol and no voice; we cannot know them by speech and discourse, but only by mere sight and outward observation of their manners and procedure." An advanced literature besides its inherent utility, (2) is at once a mark of a nation's greatness and prominence in civilization, and the desire is natural on the part of every patriotic person that his national literature shall be marked by suitable advancement, and in due course reach a culminating point calculated to invest it with strength sufficient for purposes of even the highest study. Such a literature has, of course, to be duly constructed—to be built up—step by step, and I hold that every person who lends a hand in advancing its growth—either by acceptable literary contribution or pecuniary help, deserves the cordial thanks of the community as a benefactor of the race. He thus helps forward a noble cause—helps in dispelling the darkness of ignorance and lighting the lamp of knowledge, helps in providing means to raise the nation in the scale of civilization. On those who have received the benefit of higher education lies the special obligation of sharing their "bread of knowledge" with their less fortunate brethren, (3), of conveying instruction to the latter through their common language—the mother tongue. His Highnes the Maha Raja Saheb Sayaji Rao Gaikwar—the enlightened Ruler of Baroda, has conferred immense benefit on the masses of this Presidency by the exemplary encouragement he has given to Vernacular literature. His Highness has set apart the munificent sum of half a lac of Rupees for the preparation by the best scholars available of a graduated series of scientific works in the Vernacular; and a great number of really valuable publications have seen the light of day under His Highness' personal guidance, at considerable expense. His Highness has also presented a large sum to the Gujrat Vernacular Society for the development of litera-

(1) *Vide* Carlyle's Works, Volume VI, page 40, Essay on the German Literature.

(2) "The study of Literature nourishes youth, entertains old age, adorns prosperity, solaces adversity, is delightful at home, unobtrusive abroad, deserts us not by day nor by night, in journeying nor in retirement."—*Cicero.*

(3) आदानं हि विसर्गाय सतांवारिमुचामिव।

रघुवंश. स. ४ था, श्लो. ८६.

Good souls receive, in order that they may give, just as the clouds do.—*Raghuvansha*, Ch. IV. St. 86.

"The real use of all knowledge is this, that we should dedicate that reason which was given us by God to the use and advantage of man."—*Bacon.*

ture; and he always accords suitable encouragement to deserving native authors. The publication under His Highness' liberal patronage of the works of old Baroda Poets which had not seen the light of day before, in a series of Volumes—42 in number—will remain a standing monument of His Highness' patriotic labours for the *indigenous* literature of the country.

Another Ruler on this side of India, who has been following a similar patriotic course, is the enlightened Ruler of Cutch, His Highness the Maha Raja Shri Khengarji, Savai Bahadur. His Highness has founded prizes for the encouragement of the Vernacular literature, and his patronage to native authors is proverbial. There are other Native Rulers (such as H. H. the well-known Maharaja Saheb of Idar —himself an admirable Gujarati Translator of a very useful English work) and Private individuals to whom our community owes a deep debt of gratitude for the encouragement given by them to the promotion of our national literature.

Divisions of Literature, I Scholastic and II General.

54. Accepting the Divisions of Literature as I Scholastic and II General, it will be seen that the former, in the shape of authorized Text Books, has necessarily to be fixed and regulated from time to time by recognised official authorities. As regards the latter, a recent research into the history of the development of Marathi Literature by Mr. Justice Ranade showed that there was "a want of system in its growth, due entirely to the absence of proper guidance." Another disappointing feature was that "except in the matter of translations and adaptations of scientific works and of Shakespeare's Dramas, the Graduates of the University are, with a few bright exceptions, conspicuous by their absence; and the whole credit of having enriched the language belongs to either non-University or pre-University Authors." The learned judge is inclined to attribute the failure to the existing system of education. ([1])

(1) "It is a stigma upon the higher education of our Government Colleges, and upon the men who profit by it, that so little has been done, to place European Knowledge within the reach of all classes of the people, and it provokes the enquiry whether the higher education has not failed in one of its most important objects. The failure may be due in part to the indifference of the educated classes to the education of the people, but it must also be attributed, in some measure, to the misguided action of the University, and to the fact that the Vernacular languages have been excluded from our Colleges and that consequently no means are taken for ascertaining whether the knowledge imparted has really been assimilated by the students and can be properly expressed by them in their own tongue."—*The Rev. R. A. Squires.* *Vide* Appendix (D), Paper No. 15.

55. This reference to the University Graduates draws our attention to the question of Fellowships attached to our Colleges. Mr. Waman Abaji Modak (1) pointed out that "the late Mr. Howard, when Director of Public Instruction, instituted the Dakshina Fellowships for the express purpose of cultivating the Vernacular literature; but that owing to the general apathy on the subject, this original object of the Fellowships was soon completely lost sight of, and they were turned into mere college tuitorships." A reference to the extracts given in Appendix (D), Paper No. 10, will show that according to Mr. Howard's original plan, "each Fellow was to deliver a course of lectures in the Poona College and publish one treatise every year." It was observed, "what we want is a race of native authors who, being full of sound learning and European Science, would, out of the fulness of their minds, write books of authority fashioned in native mould of thought." In their Report to the Education Commission, the Bombay Provincial Committee recommend that "two or three of the Fellowships might be specially devoted to the cultivation of the Vernaculars, (2) and thus a step taken towards the attainment of the original objects of the College Fellowships. Such a step will probably add strength to the movement which has already commenced for aiding in the development of the Vernacular languages. . . Having regard to the benefit which every part of the whole scheme of national education, from the Primary School to the University, would derive from the improvement of Vernacular Literature, we are of opinion that no object would be more deserving of liberal State assistance, if private liberality would come forward to make the necessary commencement." The matter is worthy of earnest consideration.

The College Fellowships.

56. As to the course of procedure to be adopted by Government as well as the Public in ensuring the development of a suitable Vernacular Literature, there are various suggestions. In their Despatch of 1854, the Court of Directors gave their pre-

Suggestions for ensuring improved Vernacular Literature.

(1) Essay on the Vernaculars, page 30.

(2) "It would greatly encourage the cultivation of the Vernacular languages of India that Professorships should be founded of those Languages."—Despatch of the Court of Directors 1854, para. 31.

ference to a plan originally suggested by the Hon'ble M. Elphinstone, *viz.*, "that the best translations of particular Books, or the best Elementary Treatise in specified languages, should be advertised for and liberally rewarded." (1) They also desired that the Colleges may "be made of great use in the translation of Scientific Works into the Vernacular."

The Punjab Compilation (*vide* Appendix G, Paper No. 44) will be found to contain detailed Rules suggested by the Principal of the Delhi College, for developing Vernacular Literature through a regularly constituted committee. The Rev. Dr. Mackichan (*vide* Appendix D, Paper No. 27), alluding to the great movement in England known as the University Extension movement, sympathetically exhorts us to follow its principle in organizing a plan for the improvement of our Vernacular Literature.

Lord Reay's idea as to the addition of an Oriental Faculty of Arts to our University.

Lord Reay, while expressing his opinion that "to say that higher education has no concern with the spoken languages of the country, that they have nothing from which a student can derive advantage, is a proposition which seems to be essentially unacademic, neither can it be regarded favourably from the utilitarian point of view," would recommend the addition of an Oriental Faculty of Arts to our University—a Faculty regarding which a formal proposal is actually pending at Madras. (2) Our energetic citizen, Mr.

(1) "The Fund in question (for the encouragement of Literature in the Bombay Presidency) was formerly Rs. 15,000 per annum. This was reduced to Rs. 10,000 in 1871-72 and has since been further reduced by re-appropriations made for the improvement of Salaries of Deputy Inspectors and Head Masters of High Schools, to meet the withdrawal of Municipal Contributions to Secondary Schools, &c. The fund is at present Rs. 1,080 per annum only, and is usually spent in the purchase of Copies of Books approved by the Department."—Extract from letter No. 5594, dated the 8th December 1896, from the Director of Public Instruction, Bombay, to the Bombay Government, *vide* page LXVI, Bombay Educational Report for 1896-97.

(2) Some of the objects in view are stated to be "to make the Vernacular languages a more ready, accurate, and flexible instrument, adapted to the conditions of modern life, and fitted to convey to the masses of the people the rudiments of modern knowledge and to enable the masses of the people to participate in the scientific knowledge and in the industrial and commercial progress of the present day by gradually enriching the Vernacular languages with a vocabulary containing suitable equivalents for the processes of the industrial arts as well as for the scientific principles which underlie these processes."

Dinshah Eduljee Wachha, has recommended to the Baroda Government "to found a local University on a modest scale for conferring degrees in the principal Vernaculars of the Bombay Presidency."(1) And, I believe, Professor Gokhale of Poona has suggested a course similar in principle as regards Native States.

An Educational Conference and ultimately the formation of an Association, suggested.

57. The revision and enlargement of the Primary Course, as recommended by the Education Commission, will, it is believed, render the compilation of additional Text-Books (2) necessary. As it is, the last few years have witnessed a slow, but steady, out-put of useful works in the Vernaculars. If, in the secondary course, the Vernacular is, in the first instance, made the Vehicle of knowledge in all subjects, and the supply of suitable Text-Books in the Vernacular is found deficient, that might also necessitate a due enlargement of Vernacular Literature. It is believed that there is a real necessity for as complete a series as possible of works on scientific and technical subjects, in other words, the "production of proper Text-Books" in the Vernaculars on all the different subjects of modern European learning. Such works do not, in the existing condition of our Country, pay an author, and their compilation has to be brought about by special arrangements under suitable

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(1) *Vernacular Education.*—I am a strong advocate of this education. We are indeed most poor in Vernacular Literature. But such Literature can only flourish and prosper when it is well patronised, just like arts. There must be patrons of Literature to foster and stimulate the growth of Vernacular Literature. The best mode, in my opinion, is to found a local *University* on a modest scale for conferring Degrees in the principal Vernaculars of the Bombay Presidency. The State (Baroda) should conduct it at its sole expense; candidates from all parts of the Presidency should be allowed to compete for Degrees in the Vernacular. Special encouragement should be given to graduates of Bombay University. Cold-weather Readings, Lectures and so forth should be instituted. Lecturers might be paid a small Honorarium. The suggestion could be well elaborated by a Board of Vernacular Literature consisting of distinguished Vernacular scholars."—Dinshaw Edulji Wachha, Esq., Answers to questions from the Baroda Education Commission.

(2) "No better vehicle for conveying practical information can be devised than the Village School-book."—Report to the Education Commission by the Bombay Provincial Committee, page 107, Vol I.

guidance. (1) Thus, the Primary education, with its Technical side, and the development of Vernacular Literature as its necessary adjunct, and as a means of advancing national enlightenment, are matters which call for a very careful consideration on our part in settling the various questions of detail which arise. Here again, I would be inclined to suggest an Educational Conference; and that ultimately an Influential Association be formed, whose object shall be to watch over the educational progress of our rising generation; and give effect to a carefully concerted plan for the development of Vernacular Literature. The hearty co-operation of Government (2) in such a cause may be fully relied on. It is a work in which the whole of our Presidency, including the Native States, is vitally interested, and all should be prepared to bear their proportionate share in carrying out a measure so eminently useful to the Presidency at large. After a full discussion at the proposed conference, steps can be taken to give effect to the conclusions which may be arrived at on all the points above raised, and on any others which might be brought forward. The requisite help of Literary Associations—such as the Gujrat Vernacular Society and the Deccan Translation Association will, no doubt, be forthcoming. The Court of Directors evidently counted upon systematic efforts being put forth to build up respectable Literatures in the different Vernaculars of India; it was a noble plan, well conceived, and fully calculated to promote our national welfare. Let us urge for its revival, and systematic and energetic execution.

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(1) "One of the first objects to be set before native authors in the Vernacular is the preparation of Text-Books in the several physical sciences, especially, Chemistry, Botany, Physics and Physiology, which are the Sciences most practically useful in the circumstances of Western India. Those of them who may be content with making translations can take the various Science Primers now being brought out in England under the authority of some of the greatest names in Science. The fact that such eminent men write such elementary books is an acknowledgment of the value set upon educating the people in these subjects."—*Sir Richard Temple.*

(2) "If a Vernacular language is capable of improvement by being made the medium (interchangeably with the more perfect languages) of cultivated thought, we are bound in our duty to the people of India to encourage such a use of it. How otherwise, in the words of the Despatch of 1854, are the Vernaculars of India to be gradually enriched by translations of European Books, or the original compositions of men whose minds have been imbued with the spirit of European advancement, so that European knowledge may gradually be placed in this manner within the reach of all classes of the people."—*The Hon'ble Sir James Peile.*

Chapter V.

CONCLUSION.

It is the bounden duty of every man, who is interested in Native progress, to do what in him lies in stimulating the diffusion of sound learning through the medium of the Vernacular languages, and in helping forward the creation of a pure Vernacular Literature.—*The Hon'ble A. J. Arbuthnot.*

Let every people study their own Literature.—*Richter.*

Is it possible that it should be believed to be the proper way of civilizing the *masses* of this country to teach them a foreign language first, and then through that language principally, the facts of science, or the opinions of foreigners ? (1)

In my opinion, no reform is lasting, no influence permanent, no certainty in the adoption of new ideas possible, where the mental training is not conducted through the medium of the language and the associations of the masses which it is thought to benefit.—*Dr. G. W. Leitner.*

The great majority of your countrymen can only learn through the language which is taught them at their mother's knees.—*Sir Bartle Frere.*

Hence, a new Vernacular Literature has to be created, and such a creation, if it be fully completed under our auspices, will be among the most enduring monuments of British Rule in Western India.—*Sir Richard Temple.*

Suggestions offered collectively refer to the entire school course as distinguished from the college one.

58. A careful review of the various suggestions offered in the preceding pages will show that, collectively, they have reference to the whole system of our national education from the Alphabet up to the University Entrance Examination; or, in other words, to the entire school course, as distinguished from the College course. At the time of its inception, there was an almost total absence of men (2)—Natives of India—who could successfully convey European knowledge to the people of this country, and the requisite books in the Vernacular were also altogether wanting. "It has hitherto been necessary," says the Despatch of 1854, "owing to the want of translations and adaptations of

(1) "As no nation can subsist on borrowed capital, so no nation can acquire knowledge through the narrow channel of a foreign language."—*Chintaman Hari Sohoni, Esquire.* Answers to questions from the Baroda Education Commission.

"Some day or other we shall have to face the problem whether a system of national education can be a healthy one, which imparts knowledge through the medium of a foreign tongue."—*The Indian Spectator,* Bombay, 3rd April 1898.

(2) "The Natives must learn before they can teach. The best educated among them must be placed in possession of our knowledge, before they can transfer it into their own language."—*Report of the General Committee of Education,* Calcutta, 1835.

European works in the Vernacular Languages of India, and to the very imperfect shape in which European knowledge is to be found in any works in the learned languages of the East, for those who desired to obtain a liberal education to begin by the mastery of the English language as a key to the Literature of Europe." This was written 44 years ago. The interval has witnessed a considerable educational development, and the opinion generally prevalent to-day is that the time has come when the old system may be revised with advantage, so as the better to suit our existing circumstances. (1) The important points are, I the improvement and enlargement of the Primary standards which will admit of the introduction of suitable technical instruction ; II of a change in the mode of tuition in the secondary stage, which will make a sound Vernacular education the solid basis of a Superstructure of English study ; and III development of Vernacular Literature.

An Educational Conference, a desirable Preliminary.

59. It is proposed, as a desirable preliminary, to refer these matters and the numerous questions of detail which necessarily arise in connection therewith, to the deliberations of an Educational Conference. This is the first necessary step in the rearrangement of our national system of school instruction, and its importance is too obvious to need lengthy arguments in its support. It is a step recommended by an experienced educationist like Sir Alfred Croft ; and after all, what possible objection could exist to the adoption of a course which merely seeks due discussion of important public questions by an assembly composed of representative men—of men who shall bring the result of mature experience to bear on the satisfactory settlement of the points under controversy.

That there are issues, the satisfactory settlement of which must prove beneficial, who can deny ? Take, for instance, the question of the college fellowships. The late Mr. Howard's proposals go back to the year 1857-58, *i.e.*, 40 years ago. If the excellent plan he had in

(1) " For the effectual enlightenment and advancement of the several Provinces, recourse must be had, sooner or later, to the Vernacular languages of those Provinces, improved and fitted, not by the action of individuals only, but by a system of national education, to take up the work of national progress."—Page 29, Essay on the position of the Vernaculars in our educational system, by *Waman Abaji Modack, Esquire*, Principal, Elphinstone High School, Bombay, 1888.

view had been actually given effect to, we should have had, at the rate of two new compilations per year, the addition of say 80 Volumes, on scientific and other important subjects, to our Vernacular Literature—no small gain, indeed. The Bombay Provincial Committee, composed of such noted educationists as Mr. Jacob, Sir W. Lee-Warner, and the late Mr. Justice Telang, have expressed their deliberate opinion that " as at present constituted," these College Fellowships " are of very little use," and a recommendation has been submitted that " two or three of the Fellowships might be specially devoted to the cultivation of the Vernaculars." Is not this, then, a matter which fairly deserves renewed attention ? We want very badly ampler and more improved Literature in the Vernaculars ; will it not be expedient to apply for the restoration of the Official Fund for the encouragement of Literature from its present low figure of Rs. 1,080 one thousand and eighty to its former figure of Rs. 15,000 fifteen thousand *per annum* ? The urgency of the enlargement of the Primary Course with due Technical bifurcations, is self-evident. The Court of Directors sanctioned the measure and urged its adoption long since. Thirty years later the Education Commission, in their recommendations, laid particular stress on the carrying out of this popular arrangement ; the Government of India added their sanction, and the Local Government ordered execution ; this brings us to the year 1884; a few years further on, the highest authorities put upon the Agricultural Departments in this country " specifically the duty of taking positive measures for the education of the rural classes in the direction of Agriculture,"—a " positive duty," says Sir Edward Buck, " which they cannot evade unless relieved by the Secretary of State from the obligations put upon them." At the Simla Agricultural Conference of 1890, " the importance of the subject was reflected in the prolonged and close attention " given to it; this was soon followed by Dr. Voelcker's Report which urged the speedy commencement of the education of the masses in agriculture, and the preparation of the requisite Text-Books. The Local Educational Report for 1895-96 shows that the last Conference held was at Poona in February 1896. Here we are nearly at the close of the year 1898, and we can scarcely be charged with precipitancy if we respectfully ask for some practical fruit in the shape of an actual beginning of Agricultural Instruction in rural Schools. Moreover, we fail to see any visible signs of

the beginning of Commercial training. Does not, then, the all-important question of technical education in its various branches, supply a matter calling for the deliberations of an Educational Conference? The changes advocated in the existing system of training in the secondary course demand very careful discussion by those well-acquainted with or actually engaged in the work of instruction. A method, based on what are believed to be unscientific and erroneous principles, which, while involving crushing labour, yields only unsatisfactory results, is sought to be replaced by one which has the sanction of approved axioms, and which has met with cordial acceptance elsewhere. In this connection, questions of detail arise, which require careful consideration by experts; for instance, if it be decided to change the present system, as proposed, the rearrangement of the various standards to suit the new system, will be a task calling forth no small labour and skilful application of accumulated experience. How to bring about the development of Vernacular Literature—which of the modes above specified would best suit our requirements, is also a question not free from perplexity, and cannot but engage the serious thought of persons well-known for their knowledge of public affairs. The fact is that, consistently with the most salutary orders which exist, the whole system of national scholastic education requires to be brought under review and recast, and certainly affords, with its auxiliaries, such as the compilation of the requisite Text Books, &c., ample scope for the deliberations of an Educational Conference.

Consideration of Financial exigencies of the State.

60. The Financial exigencies of the State are, of course, always an important factor in regulating improvements. Now, the Reforms suggested above divide themselves into two classes, I those which involve extra expenditure, and II those which merely require change of method without necessitating any additional pecuniary burden. The latter depend for their solution on their own intrinsic merits and efficacy, and the final conclusions arrived at might be carried out irrespective of the outlook of the annual Budget Estimate; as regards the former, an Educational Conference, composed of Representative men, may best decide whether, in reference to any particular measure, such as the development of Vernacular literature, pecuniary contributions from the Public, including the Native States, may not be reasonably expected; and steps can follow for the necessary collection.

61. To be really effective, such a Conference had better be held under the auspices and the direct authority of Government, represented by its Educational Department. The Conference, in regulating its proceedings, may appoint Sub-Committees for a thorough sifting of particular subjects.

Conference better held under the auspices and the direct authority of Government represented by its Educational Department.

62. The question which immediately follows is, who is to move Government to take the step proposed? It seems such an application will be better made by an organized Association than by an individual; any of the existing Associations which commands public confidence and influencial position may do so; but perhaps the preferable course would be for our educated leaders, who sympathize with the movement, to form themselves into an organized body and take action, as may be necessary from time to time, a small fund being in the first instance raised to defray preliminary expenses. As observed by me in my Memorandum on Hindu Female Education in the Bombay Presidency, on the enlightened Leaders of our Society lies the obligation of taking the proper steps to bring the force of united action into play with the view of promoting so desirable an object as the one under discussion. The very nature of their position implies this patriotic and philanthropic duty.

The preferable plan of action will be organized efforts by educated leaders sympathizing with the movement.

63. A warm advocacy of the revised scheme for Primary Education must be a work calculated materially to benefit the voiceless Millions of our Presidency. (1) At present, they, or rather

The revised scheme for Primary Education calculated to materially benefit the voiceless millions.

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(1) "The importance of a system of Technical Education cannot, therefore, be over-estimated. I look upon it as a rope of salvation let down to save our sinking population. Technical Education commends itself to all classes and creeds of people. . . . My long merchantile experience convinces me that the elaboration by Government of an exhaustive system of technical education will prove an inestimable boon to the poorer millions of India. . . . Viewed from a mercantile as well as a philanthropic stand-point, the elaboration of a system of technical education becomes a great necessity, which is, I am sure, as deeply felt by Government as by the people of India."—Sir Savalai Rama-Swami Mudaliar, Sheriff of Madras. *Vide* "India," dated 9th September 1898, page 142.

their sons who attend schools, see only one way, as already pointed out, for proceeding higher up on the tree of knowledge, as no bifurcations for technical instruction exist; and as the wish to get as much as possible of a good thing is inherent in human nature, they take the only known road—the literary course, and as they fall off at the different stages of the ascent, they swell the ranks of place-hunters in Government service; for they have only received general instruction, and not that of a technical character fitting them for any other special sphere of occupation. If bifurcations for technical Instruction, already sanctioned, are provided for, these youngsters will have before them not one road in a long direct line which only represents the literary element, but side-roads also, representing Technical Instruction likely to be useful to them in case they like to follow their ancestral calling. A choice is thus open, and it is right to expect that at the proper stage of a student's school career, his future studies will be decided upon after considering as to what he is to be. In this way, unnecessary waste of time and labour will be averted, the market for Government Service will, to some extent, cease to be overstocked, and practical benefit will accrue to those who prefer to receive the technical instruction provided for them.

64. I submit that most strenuous efforts should be put forward to bring about, as a first batch, as complete a series of the requisite Text-Books as possible. A special public fund may well be raised for the purpose, as auxiliary to Government contribution; and the best available agency should be selected in entrusting the work of translation or compilation in connection with the different branches. The co-operation of Native Rulers on this side of India may be fairly invited. It is a patriotic work, eminently national in its character, and a satisfactory accomplishment of which is bound to raise the status of our Vernacular languages.

Suggestion as to most strenuous efforts being put forward for the development of Vernacular Literature.

65. The invocation of Divine blessing on an Appeal made in the interests of the youths of our mother-land may fitly conclude this Memorandum. (1)

Invocation of Divine Blessing.

PETLAD—GUJRAT, *October* 1898. M. J.

Vijaya Dashmi, Samwat 1954.

The following extracts from the Report of the Director of Public Instruction, Bombay, for the year 1897-98, which came to hand since the above was written, are valuable as showing what has been done in our Presidency as regards Agricultural and Industrial education.

"42. *Agricultural Classes.*—The Tapadárs' School at Hyderabad had 61 students on the roll—30 were presented for examination in the 1st year's course and all passed, and of 29 who appeared for the final examination, 28 passed—of these, 14 were Hindus and 14 Mahomedans. This institution is now in good working order, is examined annually by a Committee of experts, and should prove most useful in diffusing agricultural knowledge through the Province.

Only 2 High Schools, Kolhapur and Nasik, sent up candidates for the examination held at the College of Science in the 1st year's agricultural course. The Sholapur and Ahmednagur classes were closed on acconnt of plague. The Kolhapur school sent up 13 boys and passed 12, and Nasik sent up 2 and passed one.

An important Resolution was passed by Government in November 1897 by which Government declared their readiness to accept the Agricultural Diploma as equivalent to a degree for the purpose of revenue appointments. There is at present only one man reading for the diploma in the College of Science, but it is probable that that number will shortly increase as a result of the recognition given by Government.

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(1). While this Memorandum was passing through the Press, the Government Policy with regard to Industrial Education in the Madras Presidency was thus explained by His Excellency Sir Arthur Havelock, the Governor, to a Mofusil audience :—"Industrial Education will pervade your primary teaching and all grades of teaching, and, as one gets to the top, special industrial schools of a more advanced kind will probably be started to meet the higher requirements. But the general idea of the Government is that such education should be given in a simple form throughout the whole scope of our educational scheme." Later on, at the Madras Educational Conference held on the 22nd December 1898, His Excellency said :—"Another possible remedial expedient for the alleviation of the examination mania and for the infusion of a sounder help into our educational policy, is substitution of teaching in the vernaculars for teaching in English. . . . Does not learning in a foreign tongue cause waste of energy in the pupil, and does it not impair accuracy of the knowledge acquired ?"

It is satisfactory to notice that one result of the agricultural conferences held under the presidency of Sir E. Buck, K.C.S.I., has been to bring into prominence the excellence of the work effected in the Bombay Presidency since 1881, in the direction of agricultural enquiry, improvement and education. The Government of India in a letter quoted in Government Resolution No. 4945, dated 2nd July 1897, cordially acknowledge the strong lead given by the Bombay Government to the rest of India in the establishment of a sound system of Agricultural experiment, and also recognize the "exceptional progress" made by the Educational Department of Bombay in the introduction of agricultural instruction into the primary and secondary school system. Special books on agriculture for schools are not yet ready, but our reading books contain many agricultural lessons, and I have lately placed on the staff of the Poona Training College a teacher who can give special instruction in agriculture to the students, as has been done for some years in the College at Ahmedabad.

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44. *Industrial Schools*—Dr. Thomson inspected a large number of schools in the Presidency proper, but did not visit Sind. He speaks in especially high terms of the school for manual training attached to the Mission High School at Ahmednagur, which is worked on sound principles and not conducted as a shop. The Victoria Jubilee Technical School at Poona had 99 pupils, of whom 72 were Hindus, 17 Mahomedans, 9 Jews and 1 Christian. This school is under Dr. Thomson's direct supervision, and is a most excellent institution, the best in the Presidency of its kind. The Orphanage Press School in East Street, Poona, had only 7 pupils and the Panch Howd's School only 8. Both Schools are useful in their way. The S. P. G. Mission School at Ahmednagur had 15 pupils, and is stated to have made progress in carpentry, but Dr. Thomson thought that the boys were attempting to learn smithing without sufficient preliminary training in wood work. The Industrial school in Ratnagiri has no less than 218 pupils, but the methods of the school are not approved by Dr. Thomson who finds that very young boys are admitted, who have not yet learnt the vernacular, and who are incapable of learning manual training intelligently. The School is, in fact, too much of a workshop and too little of a school. The Pandharpur school on the other hand obtained a good report, and so did the Sassoon Reformatory at Bombay, where, under Dr. Thomson's advice, special attention is now paid to the training of the boys for distinct trades. The Sirur School now called the "Sir Dinsha Manekji Petit School," is in its new buildings, which are commodious and well equipped, but the school suffered much from plague and was closed for many months. The Ferdunji Parekh School of Industry also suffered from plague, but was attended by 38 boys at the end of the year and has obtained a fair report.

In the Northern Division, besides the Surat school already mentioned, there is no other technical or industrial school and the Municipality of Ahmedabad has not yet redeemed its old promise to start such a school. There is, however, a large

school at Bhuj with 140 boys, and another has lately been started at Vankaner in Kathiawar. Both of these schools are said to be flourishing.

In the Southern Division 7 small carpentry classes have been lately opened in connection with primary schools in the Dharwar District. Two of these are taught by trained men from the Dharwar Training College, who have learnt carpentry there. The opening of these classes is an experiment; but the Educational Inspector is hopeful of success, and Government have lately sanctioned free grants of the necessary timber to the schools.

In Sind, the Sukkur School continues to do good work, but there is a question as to the management, and neither the District nor the Municipal Board will accept the responsibility of it. The industrial schools of Sind generally do not appear to be flourishing, though the classes at Khanwahan, and Talti are an exception. The schools of the Naushahro Division have not maintained their past reputation and probably one central school conducted on the lines of the Sukkur school will eventually be established instead of a number of small schools. The classes attached to Municipal schools at Hyderabad are reported to be doing little good, and the Umerkot school is said to be too distinctly a workshop and not a place of training. The class attached to the Madrasah was disturbed by plague, but Mr. Prior considered that its work was good.

Workshops are attached to two of our Vernacular Training Colleges at Dharwar and Hyderabad, and at both places instruction is given on sound and systematic principles, and the work done is excellent. Although I am not able to report much progress under the head of Industrial Schools, yet I think that there are signs that the attention of people generally is being drawn more and more to industrial and technical education, and I am glad to welcome the Association lately founded in Poona for the promotion of industrial enterprise. An association of this kind can, if conducted on sound lines, do more to promote the material and industrial welfare of the country than the educational department can, and I hope, that it will rapidly extend its operations, and develop branches in all the most important towns of the Deccan.

45. *Victoria Jubilee Technical Institute.*—At the end of the year there were 175 students in attendance and the average monthly and daily attendance improved to some degree; but plague affected this Institution, as it did all others in Bombay. Of the 175 students, 5 were Europeans and Eurasians, 29 Portuguese and Native Christians, 9 Jews, 42 Parsis, 3 Mahomedans, 54 Brahmins and 33 other Hindus. The Principal in his report draws special attention to the advantage of a sound preliminary education before entering the Institute and points out that those who have completed their school course, or passed a University Examination are far more successful than those who have only passed the 6th Anglo-Vernacular Standard. The reports of the examiners, who are all practical men and specialists, seem to show that the work of the Institute is sound, and that the students are, as the Principal states, diligent and generally intelligent. The Institute Library is said to be thoroughly useful and is well

supplied with books and journals. The Institute again conducted annual examinations on behalf of the city and Guilds of London Institute. These examinations were held in May 1897, when 30 candidates paid their fees but 17 only appeared. Of these, 8 former and present students of the Institute appeared in subjects taught in the Institute. Of these, 7 passed and 1 failed ; 5 passed in the first class and 2 in the second. Eight former students took up subjects not taught in the Institute, and of these 6 passed and 2 failed, and one outside candidate failed. Mr. Monie remarks that the percentage of the successful students who go up for the Engineer's Certificate under the Boiler Act is double the percentage of those not trained in the Institute. Finally, I print in Appendix H his remarks as to the success of passed students in obtaining employment."

It is beyond question that the educational progress made by India under the benign British Government is exceptionally great, and must be gratefully acknowledged. And, moreover, it is well-known, as the result of experience, that satisfactory official explanations change the whole aspect of a question viewed differently in their absence. What is above suggested is simply a modification of the existing Programme to suit the altered state of circumstances. The proposed Educational Conference will, no doubt, carefully consider the Financial exigencies of the State and the needful Administrative requirements in settling a revised course of Scholastic Instruction for the future.

APPENDICES

(A) TO (I).

Nos. 1—49.

MEMORANDUM ON

OUR VERNACULARS AS MEDIA OF ELEMENTARY INSTRUCTION;

AND

THE DEVELOPMENT OF VERNACULAR LITERATURE;

WITH SPECIAL REFERENCE TO TECHNICAL EDUCATION.

Index to Appendices.

(E).—Opinions—Madras.

IX.—Fodder Crops.

In Bengal, where most of the land is put under cultivation and there is very little grazing land, fodder crops are most important. In other words it becomes a question of producing large quantities of fodder off small areas. Temporary and permanent pastures and meadows as understood in England are non-existent in Bengal. However, they are not necessary so long as Bengal has juar: 17 to 20 tons (about 500 maunds) of green juar can be grown per acre, and this makes up for a lot of pasturage. *Dhub* grass is an excellent fodder, but cannot compare with juar so far as outturn is concerned, so it may be neglected.

Maize may be grown for fodder, in which case more seed per acre would have to be sown than in the case of maize for seed purposes. As maize is a first class food-grain, it is a mistake to use it as a fodder. Hence juar (*Sorghum vulgare*), the great millet, is *par excellence* the best fodder in Bengal.

Where paddy is grown very little extra fodder is required to be grown as the paddy straw suffices for the cattle.

Wheat straw, barley straw and oat straw are excellent fodder and are all used as such. Where these crops are grown, little juar needs to be sown. Maize stalks after the cobs have been harvested are also used for fodder. All the pulse straws are excellent fodders and are also used as such juar. When the ordinary crops of the holding do not supply sufficient fodder, a little plot is put under juar.

Great millet (*juar*) *Sorghum vulgare*. Nat. ord. *Gramineæ*.

The seed that has given the best results so far in Bengal is that brought from the Saran district of Bengal.

(*b*) *Preparation of the land.*—Obtain a good deep seed bed. This requires 5—7 ploughings and 3—5 ladderings.

(*c*) *Seed and selection thereof.*—Choose the best plants in the field and save the seed from these plants for the following year.

(*d*) 1. *Sowing time.*—June.

2. *Quantity of seed per acre.*—20 seers for broadcast sowing.

3. *Manures.*—The other crops in the rotation are generally manured. The richer the soil the better will be the outturn, so apply 100 maunds cowdung per acre if it is available.

4. *After-cultivation.*—Juar seedlings are very small and delicate and hand weeding is necessary. Till the plants are 3 inches high, the weeds must be kept down. One weeding generally suffices. When 4 to 6 inches high the plants are strong and hoeing may be done. Then thin out the plants to 9 inches apart.

After this probably one hoeing with the *khurpi* will suffice.

5. *Harvesting.*—Cut when the plants are in flower. Plants may be cut as soon as the heads are well formed. The best time for cutting for feeding green is when the heads are half ripe. For *silos* there is some doubt as to the best time for cutting, but the common practice in America (U.S.A.) is when the seed is in the milk stage.

6. *Yields per acre of fodder.*—A good outturn is 16—20 tons of green fodder per acre.

X.—Vegetable Cultivation.

In a country like Bengal, where vegetarianism is the rule, it is surprising that more vegetables are not grown. The various *sags* and common country vegetables are very well known and appreciated; but potatoes, carrots, turnips, parsnips, cabbages and cauliflowers are not so well distributed as they deserve to be. Potatoes, carrots, parsnips and turnips have been mistaken for forms of flesh in the past and have wrongly been misinterpreted as being foreign, and have been therefore looked upon with disfavour, but these mistaken ideas are gradually being removed. When the people are better educated and understand that many crops in every country are really foreign to that country, these vegetables will be found to be no more foreign or fleshy than *dâls*; and each cultivator will have his patch of vegetables. It is not right that the cultivator should live on rice alone, and as his material welfare improves, he will require a little variation in his food supply. Potatoes, carrots, turnips, parsnips, cabbages and cauliflowers are of all the farm crops the highest yielders per acre and are very wholesome to eat. In the solution of the problem of how to produce sufficient food for the increasing population of Bengal these crops will form a very important factor. Especially will these crops be beneficial where huge masses of people are crowded together and where people take to sedentary habits. Vegetable cultivation is most carefully carried out in certain districts of Bengal, and in the Patna district, for example, the market gardeners compare well with their brethren of other countries.

It is not within the scope of this little book to take up every vegetable in detail, but a few will be taken as examples.

This Province only requires a sufficient supply of water and manure to grow vegetables very well. Naturally those grown in the hills have a better flavour than those grown on the plains on account of the slower development of the former. Potatoes, carrots, turnips, cabbages are all *rabi* crops. Gourds, pumpkins, palwals and cucumbers are all *kharif* crops and will not be further mentioned in this book.

Potatoes (*alu*) *Solanum tuberosum*. Nat. Ord. *Solanaceæ*.

To the same natural order belong tomatoes and brinjals. These two latter carry their fruits above ground, while the tuber (swollen stems) of the potato are carried below the surface. The treatment of all three is the same.

Carrots (*gajar*) *Daucus carota*—Nat. order *Umbelloferæ*. Parsnips belong to the same natural order and both receive the same treatment.

Turnips (*shalgam*) *Brassica campestris*, var Rapa. Nat. order *Cruciferæ*. Swedes belong to the same natural order and are nearly allied to turnips.

Cabbages (*kobi*) *Brassica oleraces*. Cauliflower is nearly allied to the cabbage and both belong to the natural order of *cruciferæ*.

B. Preparation of the land—The land requires to be carefully cultivated till a deep fine tilth is obtained. This requires 8—10 ploughings and 6—8 harrowings. When the necessary tilth is obtained the

APPENDIX A.

EXTRACTS FROM THE DESPATCH OF THE COURT OF DIRECTORS ON EDUCATION IN INDIA—1854.

(1)

CHAPTER VIII.—LIVE-STOCK.

The live-stock of the farm in Bengal are chiefly cattle and goats. All farm work is mainly done by bullocks. In certain districts buffaloes are also used, but they cannot stand the heat like cattle and require plenty of water to keep them in good health. The cows of Bengal give very little milk (½ to 2 seers per day), while buffaloes give plenty of milk (6—12 seers), that is twice as rich in fat as cow's milk. Hence buffaloes are the most important milking animals of Bengal. Goats are kept by poorer people and their milk is used. Ponies, donkeys, sheep and poultry are found in every district. The ponies are generally very miserable animals, being underfed and badly treated. Donkeys are only of interest to the dhobies. Sheep are very poor animals carrying only hair instead of wool with very little flesh on their bones, while the poultry are very small in comparison with European breeds.

Accordingly cattle are the most important animals to the Bengal cultivator. He takes little notice of the female, but the males are carefully looked after, and at 2—2½ years old they are castrated. These castrated animals are the bullocks or the draught animals of India.

The size of the animals in Bengal varies according to the climatic conditions. In Lower Bengal, where the climate is moist and damp and there is little grazing, the bullocks are very small, while to the north-west part of the Province, where drier conditions prevail, splendid looking large animals are to be found.

Bullocks can be roughly divided into two classes—

(*a*) Plough animals, and
(*b*) Cart animals.

Cart animals can be used also for ploughing, but one pair on a farm is generally kept for cart work and plough animals are not used for cart work unless there are no cart bullocks.

(*A*) *Selection of bullocks for plough work.*—Choose healthy, sound compact animals with good bone and action, with not too much daylight under them and young. In other words (1) the animals must be healthy, *i.e.*, free from disease. (2) He must be sound, *i.e.*, must not be lame either in legs or joints, must have good teeth and mouth, in order that he may eat, and must have no malformation. (3) He must be compact, *i.e.*, well formed. The head must be connected by a short thick neck to a solid rectangular trunk (body) well set on four well proportioned legs. Misshappen heads on long necks attached to hollow backed trunks covered with bony protuberances are sights only too common in Bengal A good solid barrel of a trunk is the best sign of strength

(4) *Bone.*—The bone must be in proportion to the size of the animal. A well built animal with large bones is to be preferred to one with small bones.

(5) *Action.*—In walking and running the legs should not catch one on the other, either back against the front and *vice versâ* or back and front legs amongst themselves, and the general action of movement should be lively.

(6) Not too much daylight under them. This means the leg must not be too long. For ploughing the longer the legs the greater the draught on the animals, hence get the body (within proportions) as near the ground as possible.

(7) *Age.*—Choose a young animal—one with 6 broad teeth and the other two showing appearances of coming up. More years of work can be got out of such an animal than from an older animal.

Accordingly in judging animals if ten points each be allotted for points (1), (4), (5), (6) and (7), twenty points for point (2) and thirty points for point (3), we have 100 points and students with a little practice can judge animals for themselves.

For cart bullocks the same points hold good except the length of the legs which must be long to allow of faster movement over the ground.

B. Housing.—Simple houses of bamboo or mud or corrugated iron are excellent for animals in Bengal. The main points to be observed are to keep the animals cool in summer and warm in winter. Under the shade of trees, corrugated iron sheds are as good as any other and are far more durable. They are also fairly cheap. Allow 4′ × 8′ floor space for each animal and 8′ high and the animal has quite sufficient accommodation for Bengal where the animals are outside most of the day and where doors and walls are seldom required.

C. Feeding.—Bullocks are fed on the straws of paddy, wheat, oats, barley, pulses, maize, millets and juar. The straws are chopped up fine and called bhusa. The chaffs of the grains of the above crops are also used as fodder.

At times of hard work oilcake must also be supplied to the animals. At these times it it best to feed the whole, steeped in water as a sloppy mass.

Each animal requires a little salt each day to keep in good health. When green juar is fed it is also chopped up and 20 seers per bullock are allowed per day.

Two feeds are given per day, viz., at midday and in the evening. Whenever grazing can be found the animals should be allowed to graze.

Food ration per bullock per day.

8 to 10 seers bhusa (dry) ½ to 1 seer mustard cake 1 chittak salt	fed in two feeds.

D. Working.—In the working of animals one must be very careful. It is very unwise to work the animal too hard at one time. An animal can do a certain amount of work and no more. The wise cultivator gets to work early in the morning before the sun is hot. At 12 A.M., he takes them under the shade, feeds and waters them

Appendix A.

(1)

Extracts from the Despatch of the Court of Directors on the subject of Education in India, No. 49, *dated* 19*th July* 1854.

7. Before proceeding further, we must emphatically declare that the education which we desire to see extended in India is that which has for its object the diffusion of the improved arts, science, philosophy and Literature of Europe; in short, of European knowledge.

. . .

10. We have also received most satisfactory evidence of the high attainments in English Literature and European Science which have been acquired of late years by some of the Natives of India. But this success has been confined to but a small number of persons; and we are desirous of extending far more widely the means of acquiring general European knowledge of a less high order, but of such a character as may be practically useful to the people of India in their different spheres of life. To attain this end, it is necessary, for the reasons which we have given above, that they should be made familiar with the works of European authors, and with the results of the thought and labor of Europeans on the subjects of every description upon which knowledge is to be imparted to them; and to extend the means of imparting this knowledge must be the *object* of any general system of education.

11. We have next to consider the manner in which our object is to be effected; and this leads us to the question of the *medium* through which knowledge is to be conveyed to the people of India. It has hitherto been necessary, owing to the want of translations or adaptations of European works in the vernacular languages of India, and to the very imperfect shape in which European knowledge is to be found in any works in the learned languages of the East, for those who desired to obtain a liberal education, to begin by the mastery of the English language as a key to the literature of Europe; and a knowledge of English will always be essential to those Natives of India who aspire to a high order of education.

12. In some parts of India, more especially in the immediate vicinity of the Presidency towns, where persons who possess a knowledge of English are preferred to others in many employments, public as well as private, a very moderate proficiency in the English language is often looked upon by those who attend school instruction, as the end and object of their education, rather than as a necessary step to the improvement of their general knowledge. We do not deny the value in many respects of the mere faculty of speaking and writing English, but we fear that a tendency has been created in these districts unduly to neglect the study of the vernacular languages.

13. It is neither our aim nor desire to substitute the English language for the vernacular dialects of the country. We have always been most sensible of the importance of the use of the languages which alone are understood by the great mass of the population. These languages, and not English, have been put by us in the place of Persian in the administration of justice and in the intercourse between the officers of Government and the people. It is indispensible, therefore, that, in any general system of education, the study of them should be assiduously attended to, and any acquaintance with improved European knowledge which is to be communicated to the great mass of the people—whose circumstances prevent them from acquiring a high order of education, and who cannot be expected to overcome the difficulties of a foreign language—can only be conveyed to them through one or other of these vernacular languages.

14. In any general system of education, the English language should be taught where there is a demand for it; but such instruction should always be combined with a careful attention to the study of the vernacular language of the district, and with such general instruction as can be conveyed through that language; and while the English language continues to be made use of, as by far the most perfect *medium* for the education of those persons who have acquired a sufficient knowledge of it to receive general instruction *through* it, the vernacular languages must be employed to teach the far larger classes who are ignorant of, or imperfectly acquainted with English. This can only be done effectually through the instrumentality of masters and professors, who may, by themselves, knowing English, and thus having full access to the latest improvements in knowledge of every kind, impart to their fellow-countrymen, through the medium

of their mother tongue, the information which they have thus obtained. At the same time, and as the importance of the vernacular languages becomes more appreciated, the vernacular literatures of India will be gradully enriched by translations of European books or by the original compositions of men whose minds have been imbued with the spirit of European advancement, so that European knowledge may gradully be placed in this manner within the reach of all classes of the people. We look, therefore, to the English language and to the vernacular languages of India together as the *media* for the diffusion of European knowledge, and it is our desire to see them cultivated together in all schools in India of a sufficiently high class to maintain a school-master possessing the requisite qualifications.

. . .

31. . . . It would greatly encourage the cultivation of the vernacular languages of India that professorships should be founded of those languages, and perhaps, also for Sanskrit, Arabic and Persian. A knowledge of the Sanskrit language, the root of the vernaculars of the greater part of India, is more especially necessary to those who are engaged in the work of composition in those languages.

. . .

38. The affiliated Institutions will be periodically visited by Government Inspectors, . . . scholarships should be attached to them, to be held by the best students of lower schools; and their scheme of education should provide, in the Anglo-Vernacular Colleges, for a careful cultivation of the vernacular languages; and, in the Oriental Colleges, for sufficient instruction in the English and vernacular languages, so as to render the studies of each most available for that general diffusion of European knowledge which is the main object of education in India.

. . .

41. Our attention should now be directed to a consideration, if possible, still more important, and one which has been hitherto, we are bound to admit, too much neglected, namely, how useful and practical knowledge, suited to every station in life, may be best conveyed to the great mass of the people, who are utterly incapable of obtaining any education worthy of the name, by their own unaided efforts, and we desire to see the active measures of Government more

especially directed, for the future, to this object, for the attainment of which we are ready to sanction a considerable increase of expenditure.

42. Schools—whose object should be not to train highly a few youths, but to provide more opportunities than now exist for the acquisition of such an improved education as will make those who possess it more useful Members of Society in every condition of life—should exist in every district in India. . . .

43. We include in this class of institutions those which, like the Zillah Schools of Bengal, the district Government Anglo-Vernacular Schools of Bombay, and such as have been established by the Rajah of Burdwan and other native gentlemen in different parts of India, use the English language as the chief medium of instruction, as well as others of an inferior order, such as the tehseelee schools in the North-Western Provinces, and the Government vernacular schools in the Bombay Presidency, whose object is, however imperfectly it has been as yet carried out, to convey the highest class of instruction which can now be taught, through the medium of the vernacular languages.

44. We include these Anglo-vernacular and vernacular schools in the same class, because we are unwilling to maintain the broad line of separation which at present exists between schools in which the *media* for imparting instruction differ. The knowledge conveyed is, no doubt, at the present time, much higher in the Anglo-vernacular than in the vernacular schools ; but the difference will become less marked, and the latter more efficient, as the gradual enrichment of the vernacular languages in works on education allows their schemes of study to be enlarged, and as a more numerous class of school masters is raised up, able to impart a superior education.

45. It is indispensible, in order fully and efficiently to carry out our views as to these schools, that their masters should possess a knowledge of English in order to acquire, and of the vernaculars so as readily to convey, useful knowledge to their pupils ; but we are aware that it is impossible to obtain at present the services of a sufficient number of persons so qualified, and that such a class must be gradually collected and trained in the manner to which we shall hereafter allude. . . .

70. Equal in importance to the training of school-masters is the provision of vernacular school-books, which shall provide European information to be the object of study in the lower classes of schools. Something has, no doubt, been done of late years towards this end, but more still remains to be done; and we believe that deficiencies might be readily and speedily supplied by the adoption of a course recommended by Mr. M. Elphinstone in 1825, namely—"That the best translations of particular books, or the best elementary treatises in specified languages, should be advertised for and liberally rewarded."

71. The aim should be, in compilations and origin compositions (to quote from one of Mr. Adam's valuable reports upon the state of education in Bengal), "not to translate European works into the words and idioms of the native languages, but so to combine the substance of European knowledge with native forms of thought and sentiment as to render the school-books useful and attractive." We also refer with pleasure upon this point to some valuable observations by Mr. Reid, in his report which we have quoted before, more especially as regards instruction in geography. It is obvious that the local peculiarities of different parts of India render it necessary that the class-books in each should be especially adapted to the feelings, sympathies and history of the people; and we will only further remark upon this subject that the Oriental Colleges, besides generally tending, as we have before observed, to the enrichment of the vernacular languages, may, we think, be made of great use in the translation of scientific works into those languages, as has already been done to some extent in the Delhi, Benares and Poona Colleges.

APPENDIX B.

EXTRACTS FROM SIR W. W. HUNTER'S EDUCATION COMMISSION REPORT AND SUBSEQUENT OFFICIAL REVIEWS ON EDUCATIONAL PROGRESS.

(2—5)

Appendix B.

(2)

Sir W. W. HUNTER'S EDUCATION COMMISSION.

Extracts from the Report of the Commission.

Page 8.

"For many years the medium and the character of the instruction to be given in Government schools and colleges were the subject of a vigorous controversy between the Anglicists and the Orientalists. The former party urged that all instructions of the Higher Kind should be given through the English language, and should be in accordance with modern ideas. The latter, which admitting that what was then taught as science had no right to that title, wished to maintain the study of the Oriental classics in accordance with the methods indigenous to the country. Both parties broadly and prominently admitted the claims of the Vernacular languages. Among the Orientalists were many of the distinguished officers of Government, and for some time their views prevailed in the General Committee of Public Instruction. But the minority gradually became more and more powerful; and when in 1835, the two parties were so evenly balanced that things had come to a deadlock, it was Macaulay's advocacy of English Education that turned the scale against the Orientalists. His famous Minute was immediately followed by a Resolution of the Governor-General, which plainly declared for English as against Oriental Education."(1)

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(1) "Macaulay subsequently explained that the General Committee in 'advocating English as the best medium of instruction had in view those classes only of the community who had means and leisure for obtaining a thorough Education.' 'When the object is merely an elementary education, it may be most easily imparted to the Natives in their own language.'"—*Vide* page 4, "Education in India," by John Murdock, Esquire, LL.D., Madras, 1881.

In the first annual Report submitted by the General Committee to the Supreme Government after the promulgation of the Resolution above referred to, they state :—"At present, the extensive cultivation of some foreign language, which is

Page 206.

Para. 248. *Initial Standards in Secondary Schools.*—On a compendious review of the course of study in secondary schools or departments throughout British India, it may be generally stated that, from the time of his entrance upon the secondary stage, a scholar receives instruction in the following subjects: English, the vernacular, arithmetic, geography and history; and that after a period of study extending over five years, three of which are passed in the middle stage and two in the high, he is brought up to the Matriculation standard of the University. These general statements are, however, subject to large modifications in their application to different provinces, as regards alike the contents of the course, the period during which it is studied, and its relation to the course below it. For example, English may be generally regarded as the subject which specially characterises the beginnings of secondary as distinguished from primary education. In some Provinces, however,

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always very improving to the mind, is rendered indispensable by the almost total absence of a Vernacular Literature, and the consequent impossibility of obtaining a tolerable education from that source only. The study of English, to which many circumstances induce the Natives to give the preference, and with it the knowledge of the learning of the West, is therefore daily spreading. This, as it appears to us, is the first stage in the process by which India is to be enlightened. The Natives must learn before they can teach. The best educated among them must be placed in possession of our knowledge, before they can transfer it into their own language. We trust that the number of such translations will multiply every year."—*Vide* pages 22 to 24, Sir Charles Trevelyan on Education in India, London, 1838.

"We are now following the slow but sure course on which alone we can depend for a supply of good books in the Vernacular languages of India. We are attempting to raise up a large class of enlightened natives. I hope that twenty years hence there will be hundreds, nay thousands of Natives familiar with the best models of composition, and well acquainted with Western science. Among them, some persons will be found who will have the inclination and ability to exhibit European knowledge in the Vernacular dialects. This, I believe, to be the only way in which we can raise up a good Vernacular Literature in this Country."—Lord Macaulay, *vide* the *Hindu* of Madras, 7th July 1898.—M. J.

English is taught in primary as well as in secondary schools; in others it is not a necessary part of the course even in secondary schools, but may be replaced by a classical language, or Mathematics, or elementary science. Similar differences prevail as to the number of classes comprised in a secondary school. In Bombay, the course in secondary schools extends over seven years, three being spent in the middle and four in the high school. A comparison of the courses, however, shows that the initial standard of middle schools is considerably lower than the initial standard of secondary instruction in other Provinces, which corresponds more nearly, though not precisely, to the third standard of middle schools in Bombay. Understood in this sense, the period of secondary instruction may in Bombay also be taken to extend our five years, one being spent in the middle and four in the high school. In Berar, where the courses are also governed by the entrance standard of the Bombay University, the middle-school course occupies three years and that of the high school two years. In Bengal and Assam, where the courses in corresponding classes of different schools to some extent overlap, the secondary course may also be regarded as extending over five years, three in the middle and two in the high school. The same is explicitly the case in the Punjab and in Coorg. In the North-Western Provinces, the course occupies four years, and in the Central Provinces six years, but in neither case do the Provincial Reports supply the initial standard of middle schools, so that the materials for an exact comparison are wanting. It will, however, be convenient, in order to furnish a more precise idea of what is generally understood by secondary education, to present in a tabular form a comparison of the initial standards, as above understood, of middle schools in which English is taught, in the three Provinces of Madras, Bombay, and Bengal. In Madras and Bengal this standard is reached after a five or six years' course in one school, in Bombay after a seven years' course in two schools.

Initial Standards of Instruction in Secondary Schools.

Subjects.	Madras.	Bombay.	Bengal.
	Standard of the 3rd* class of English schools.	Standard of the 3rd* class of Middle Schools.	Standard of the 5th* class of Middle and High Schools.
1 English ...	Third English Reader, writing, dictation, and grammar; translation into English and the vernacular; dialogues in the Reader to be learnt by heart; knowledge of English to be tested by sentences outside the text-book.	Third English Reader, writing, spelling, and simple parsing in English; translation into English and the vernacular; recitation of poetry.	Fourth English Reader, dictation and grammar, translation into English and the vernacular; recitation of select pieces of poetry.
2 Vernacular Language.	Fourth Reader and short poetical passages not previously studied; dictation and grammar; Recitation of poetry.	Prescribed portions of standard authors, in prose and poetry; dictation and grammar; recitation of 100 lines of poetry.	Prose and poetical reading, dictation and grammar.
3 Arithmetic.	To compound rules and vulgar fractions; easy decimals.	To decimals, compound proportion and discount.	To vulgar and decimal fractions, and proportion; native methods of Arithmetic.
4 Geography.	Europe: Maps to be shown.	Asia and India in detail; Elementary knowledge of the World; Map of India to be drawn from memory, with political divisions.	Asia and India in detail; general knowledge of the World; Map of Bengal.
5 History ...	Portion of the history of the world. (Agriculture may be substituted for history in rural schools.)	India to 1856.	Bengal.
6 Additional Subjects.	...	...	Euclid to I. 26 Mensuration of lines, and Native methods of mensuration. The Sanitary Primer, with an additional Text-book.

* The classes are reckoned from the bottom of the school.

These standards, it will be observed, do not greatly differ. The Bengal standard covers a wider field than that of Bombay, but the latter within its narrower area is more complete. In Bombay, the following subjects may also be optionally taken up by students of middle schools: (*a*) free-hand drawing; (*b*) model and object drawing; (*c*) practical geometry. Schools in which drawing is taught are examined once a year, and a prize is given to any scholar who passes in the first grade.

It should here be noticed that our Bombay Colleagues take exception to the comparison of standards made above; and they urge that, owing to the greater attention paid to the vernacular in secondary schools in Bombay, a student necessarily remains a longer time in the secondary stage of instruction in that Province than in others in which the attention of pupils is more exclusively directed to English and the subjects of the University Entrance course. They consider that the lowest and not the third standard in middle schools should be taken as marking the beginnings of secondary education in Bombay; and they regard the former standard as being equivalent, except in the single subject of English, to the standards given in the above Table for Madras and Bengal. The practical bearing of the argument here put forward is that, in comparing the number of secondary pupils in different Provinces, no deduction should be made on account of those reading in the two lowest classes of a middle school in Bombay. Calculated in this way, the number of pupils in secondary schools in Bombay would, in proportion to the population, be above that of any other Province. We have already expressed the opinion that no accurate comparison is possible; and for those who wish to pursue the subject further, the Bombay standards are given in detail at page 114 of the Bombay Provincial Report.

249. *The place of English and the Vernacular in Secondary Schools.*—In those schools in which English is taught, it may either be taught as a language merely, all substantive instruction in other subjects being imparted through the vernacular, or it may itself be used as the medium of instruction. It will be seen that wide differences prevail in this respect. Again, the description of secondary schools given in the preceding paragraph applies only to those schools in which English forms part of the course. That subject, however, is not everywhere regarded as a necessary element in secondary

instruction; and in many Provinces, schools in which English finds no place are included in this class. The latter practice appears to have derived its origin or sanction from the principle enunciated in paragraphs 43 and 44 of the Despatch of 1854, in which Anglo-Vernacular and Vernacular Schools were included in the same class, and the standard of instruction, in whatever language conveyed, was declared to be the most important element in classification.

In Madras, Middle vernacular schools form part of the recognised system, though the large majority of middle schools include English in their course. English is also taught as a necessary or optional part of the course in primary schools. In the lowest class of middle schools it is taught as a language only; in the higher classes of these schools and in high schools, it is the medium of instruction. In Bombay there is nothing exactly corresponding to a Middle Vernacular school, since middle schools are defined by the teaching of English. But some approach to it is found in the addition of a fifth and sixth standard to the ordinary course in primary schools, after the examination which qualifies for admission to a middle school has been passed. If "middle school instruction" is understood to mean that which leads on to a high school, these standards will form no part of it, since they have been devised with exclusive reference to the requirements of candidates for the public service. But if by middle or secondary instruction is meant that which carries primary instruction to a higher point, the fifth and sixth standards, though taught in a primary school, may so far be regarded as belonging to the secondary system. In all middle schools the vernacular is the sole medium of instruction; in high schools English takes its place. In Bengal, the greatest value is attached to middle vernacular schools, which are regarded as the strength of the secondary system; and equal stress is laid on the employment of the vernacular as the medium of instruction. Until six years ago, English was the medium of instruction in all middle English schools. But in 1877, when the advantages of a different method had for some time engaged the attention of the Department, the course in English schools was assimilated to that in vernacular schools; English was taught as a language merely, in addition to the full vernacular course; and all substantive instruction in middle schools has since been imparted in the vernacular. In the middle departments of high schools in Bengal

the old system still prevails. In these schools, in all of which English is taught from the lowest primary class, the text-books are all English ; and arithmetic, history, and geography are taught through the medium of English. A movement, however, has lately been set on foot in Bengal, with the object of confining the use of English as the medium of instruction to the four or five highest classes leading up to the entrance examination ; and the plan has been tried as an experimental measure in a few Government and aided schools. In the North-Western Provinces there is a well marked class of middle vernacular schools, in which English and Algebra are replaced by equivalent subjects in the vernacular. In middle English schools all instruction in the lower classes is conveyed through the vernacular. In the Punjab the same distinction of secondary schools into English and vernacular exists ; and it applies not only to middle but to high schools. In middle schools, equivalent subjects are substituted for English ; while the course in vernacular high schools is determined by the entrance standard of the Punjab University. Our returns show only one high school of this class, that at Jalandhar ; but in fact the Government high schools at Jalandhar, Ludhiana and Delhi have both English and Vernacular Departments, to which may perhaps be added the school classes of the Oriental College at Lahore. In middle English schools the vernacular is the medium of instruction. The Central Provinces follow an entirely different system. There are no middle vernacular schools properly so called ; and the nearest equivalent is found, as in Bombay, in the addition of a fifth and sixth class to the four classes of an ordinary primary school. Again, throughout the secondary course English is employed as the medium of instruction. Coorg follows the example of Madras, and Assam that of Bengal. In Berar there are no vernacular secondary schools, and English is employed as the medium of instruction throughout.

250. *The Vernacular as the Medium of Instruction.*—A consideration of the diversities of practice exhibited in the preceding paragraph suggests the following observations with regard to the employment of the vernacular as the medium of instruction in secondary, or at any rate in middle, schools. The opposite practice is defended in the Report of the Central Provinces Committee in the following words : "Instruction [in middle schools] is given usually through English.

Every effort is made to teach English as a living language. It is felt that a boy well grounded in English and having a good acquaintance with one of the vernaculars, may, after he leaves school, carry on his own education. Boys well grounded in these languages pass more easily and with greater success through their high school course than those less perfectly acquainted with English." In the same way, it was formerly contended in Bengal that to convey instruction in history, geography, and science through the medium of English, and with English text-books, was to teach the pupils English as well as the special subjects of study; and, by enlarging their stock of English words and forms of expression, to prepare them more thoroughly for the entrance examination and the subsequent University course. The more English reading they got, the better English scholars they would be; while the study of English was continued long enough to enable them to profit by instruction in other subjects conveyed through that language. The force of this argument is denied by some; though it may be accepted so far as it applies to the method of instruction in high schools—understanding that term to signify the upper classes reading for the Entrance examination. By the time a pupil arrives at that stage of instruction, he may be assumed to have advanced so far, both in English and in other subjects, as to be able to profit by instruction conveyed in a foreign tongue. The point is much less clear in the case of middle schools, in which, speaking generally, a pupil enters for the first time upon the study of history, science, and mathematics, concurrently with English. If all these subjects are taught through English, instead of through the pupil's own vernacular,—just as, under earlier systems of instruction, Latin and Greek were taught to English boys, not through English but through Latin,—it is to be feared that his progress in them will be slow. Proficiency in English will, in fact, be gained at the expense of his general education. When, indeed, a pupil passes from the middle to the high school, a compensating condition arises in the fact that his greater familiarity with English will enable him to advance with more rapid steps in his other subjects, which are at that stage to be taught through English. A similar consideration may be held to apply to those high schools in Bengal in which English is taught from the earliest primary stage, and is employed as the medium of instruction almost from the outset. Every pupil in these

schools is practically reading for the Entrance examination; and the question of any disadvantage which he might suffer if his education so conducted, came to an end at an earlier stage, hardly arises. It is different, however, with the course and the pupils in middle schools. The question cannot be argued on the assumption that every pupil in a middle school goes on in due course to a high school; the reverse is notoriously the case. In Bengal, for example, it is known that the great majority of the pupils of Middle English Schools complete their education therein. Hence it becomes of the utmost importance to consider whether, to such pupils, the use of English or of the vernacular is most advantageous as the medium of instruction. For them, at any rate, it would appear that the employment of the vernacular is preferable. A boy would in such a case receive a sound vernacular education suited to his station in life, and he would acquire a useful, if elementary, knowledge of English in addition. To a boy so educated even an elementary knowledge of English is of unquestionable value, not only by reason of the mental training which its acquisition has involved, but also in regard to his business or other relations with the outer world. It may be added that the experience of the Education Department in Bengal offers a remarkable contrast with that of officers in the Central Provinces, as described in the passage quoted at the beginning of this paragraph. That which led the Bengal Department first of all to consider the feasibility of the change was the marked superiority, at the Entrance examination, of those pupils who had joined the high school with vernacular, compared with those who came with English scholarships. In Calcutta, again, when the freest choice is open, both to pupils in selecting a school, and to managers in determining what constitution will make their school most popular, it is found that all the great middle schools of the city are purely vernacular; and that a large majority of the pupils in the Hindoo school, excluding those who have been educated therein from the beginning, come from vernacular and not from English schools. We have dwelt at some length on the example of Bengal, because it is in that Province that the question has been most fully and frequently discussed, and the widest experience of opposite systems gained. We do not put forward any definite recommendation, on this subject, but at the same time we commend its consideration, in the light of the observations above made, both to Local

Governments and Departments, and in an equal degree to the managers of aided and unaided Secondary Schools. It is a question in the decision of which much must depend on local circumstances; and hence the freest scope in dealing with it should be left to the managers of schools, whatever be the view which the Department in any Province may be disposed to adopt."

Page 230.

Para. 268. "In nearly all Provinces English grammar is taught through the middle course by means of English Books exclusively; but in Bengal, the alternative and perhaps preferable method of teaching English grammar through the medium of the student's own vernacular, is rapidly gaining ground; and the same plan is generally followed in Assam."

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(3)

REVIEW OF EDUCATION IN INDIA IN 1886.

With special reference to the Report of the Education Commission.

BY SIR ALFRED CROFT, K.C.I.E., M.A.,

DIRECTOR OF PUBLIC INSTRUCTION, BENGAL. CALCUTTA, 1888.

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Para. 162. *The Medium of Instruction in Secondary Schools.*—A further question arises. In Vernacular Schools the medium of instruction is necessarily the vernacular; but in English schools should the pupils be taught through their own vernacular, or through English—to them a foreign language? The question was a familiar one in England in days not very long gone by. In the grammar schools of that country, Latin and Greek grammar were invariably taught up to quite recent times by the aid of Latin text-books, and Latin and Greek authors were elucidated for the use of school boys by Latin notes. At the present day juster views prevail as to the value of artificial trammels in the acquisition of knowledge, and English has altogether displaced Latin as the vehicle of instruction. In India the question still occupies debateable ground and divides the opinion of authorities. It is true that the conditions are widely different in the two countries. In England a boy learns Latin, it is pre-

sumed, as an element in a liberal education, as a recognized form of culture, as a solace for his leisure hours; but not as a language for which he will have any use in the business of life. In India, on the other hand, the entrance examination which crowns his school course is conducted in English; throughout his subsequent University career English is exclusively employed; and familiarity with English as a spoken and living language is indispensable to success in official and professional life. These are important differences; and they furnish ground for the contention that throughout his school course an Indian boy's mind should be saturated with English; that he should be talked to and made to talk in English, that his text-books in history or geography should be in English, not indeed in order to teach him history or geography the better, but in order to familiarise him the more with English. On the other side it is urged that by following such a method, you may indeed teach him English but you will teach him nothing else, and that the main purpose of his education will be missed. Nor, again, is it conceded that you will by this method be sure of making him a more expert and fluent English scholar. To recur to the case of the school boy or the University man in England, it is maintained that if he had to use Latin and Latin only in his ordinary public life, if he had to conduct cases in it, to preach in it, to correspond in it, he would be enabled to discharge all these duties just as efficiently under the present as under the exploded system. It is certainly the modern theory in England that a boy's intellect should be strengthened by instruction in his own vernacular before he attempts the study of a foreign language, and that he will thus be enabled to grapple with the difficulties of the foreign language much more successfully. It is precisely in this sense that the head masters of Harrow, Winchester and Marlborough have lately expressed their intention of postponing the study of Greek to a later stage than at present. They condemn the practice of making boys begin Greek "before either their knowledge of Latin or their mental growth has qualified them to enter on the study of a second dead language. Our experience shows that the minds of young boys are confused by the multiplicity of subjects taught at the same time. . . . Boys who began [Greek] at a later age would be able with more rapidity and less confusion to assimilate the grammar"—of that language. "There

would be other considerable advantages in beginning Greek at a later age. Time would then be set free for the study of French, geography, and the outlines of history; and above all for gaining such acquaintance with English as would both stimulate interest and thought, and promote a more intelligent study of Latin and Greek." They conclude by saying: "We are most anxious to do nothing that will diminish the range and influence of classical education in England. But we believe that a change of method on the lines here indicated would lead to a higher average of intellectual attainment in public schools, and that, so far from injuring the cause of classical education, it would strengthen it by removing reasonable objections, and by establishing the study of both Latin and Greek on a more reasonable basis." If 'English education' be substituted for 'classical education,' these remarks have an obvious and apt bearing on the conditions of education in India. One further point may be noticed. In defence of the system of educating Indian boys through English in order to increase their power of familiar expression in that language, it is urged that an English parent, wishing his children to learn French colloquially, places them under a Swiss *bonne*. The difference is that the Swiss *bonne* teaches them good colloquial French, while the Hindu Schoolmaster can often teach only bad colloquial English, and the lower down in the school the study of English is begun, the more pronounced is this defect. Glaring faults of idiom, and of pronunciation, which sometimes disfigure the speech of even highly educated men, are in most cases due to the fact that they have begun to learn English under junior masters imperfectly acquainted with the language, and that early training has rendered these faults ineradicable.

Views so divergent have influenced, more or less consciously, the methods of secondary instruction that find favour in different parts of India. It is in high-schools—in the instruction of those who are destined for the entrance examination and a subsequent University career—that the differences emerge most clearly. Sometimes the study of English is entered on from the beginning; sometimes it is postponed for two or three years until the pupil has mastered the rudiments of education through his own vernacular. After it has been taken up, it is sometimes taught as a language merely, sometimes it is employed as the vehicle of instruction. In the former

case, the school is at that stage essentially a vernacular school with instruction in the English language added; in the latter, the text-books in history, in geography, in mathematics are all in English, and the questions and explanations of the teachers are conveyed in the same tongue. When we turn to middle schools, we find much greater uniformity, and a much stronger inclination—since English can be taught to only a moderate standard in the end—to impart all substantive instruction through the vernacular. It appears from the returns that besides the 40,000 pupils of Secondary English schools who learn the vernacular only, there are nearly 168,000 who learn the vernacular along with English. Many of these, it is true, are pupils who are merely practised in vernacular composition for the purposes of the matriculation examination; but the great majority, it may reasonably be inferred, are those who, being in the middle stage of instruction, have not as yet acquired enough English to be able to do without vernaculur teaching in the class. The question of the relative merits of the two systems is argued at length in paragraph 250 of the Commission's report, and its consideration was recommended to Local Governments. In the Resolution of the 23rd October 1884, the Government of India drew special attention to the point in the following words (paragraph 22) :—" There is one matter regarding which no specific recommendation is made, but to which attention was drawn in the Resolution appointing the Commission, and which is discussed in paragraphs 249-50 of their report, viz., the place which should be occupied by English and the vernacular in middle schools. The Governor-General in Council is disposed to agree with the Commission that for boys whose education terminates with the middle course, instruction through the vernacular is likely to be the most effective and satisfactory. The experience of Bengal goes, indeed, to show that even for lads pursuing their studies in high schools a thorough grounding conveyed through their own vernacular leads to satisfactory after-results. It is urged by those who take this view that many of the complaints of the unsatisfactory quality of the training given in the middle and high schools of the country are accounted for by the attempt to convey instruction through a foreign tongue. The boys, it is said, learn a smattering of very indifferent English, while their minds receive no developmet by the imparting to them of useful knowledge in a shape comprehensible to their

intellects, since they never really assimilate the instruction imparted to them. It has been proposed to meet this difficulty by providing that English shall only be taught in middle schools as a language, and even then only as an extra subject when there is a real demand for it, and a readiness to pay for such instruction. His Excellency in Council commends this matter to the careful consideration of Local Governments and Educational authorities." This important question has received attention in several provinces.

In Madras the subject of the teaching of English does not, in the opinion of the Local Government, require further action in that Presidency. As to purely vernacular schools, it is alleged, and was indeed admitted by the Commission, that the demand for English is so strong that schools from which English is excluded would be unable to exist. And as to the medium of instruction, there is no reason, it is urged, to believe that the ill-effects said to have been observed in Bengal have resulted in Madras, where the knowledge of English is very much more diffused. Reference is also made to the standing orders on the subject of teaching English in Government Schools, which are said to be "well calculated to check the tendency towards a mechanical repetition of half-understood sentences." These orders direct special attention to translation and retranslation into English and the vernacular, as a means of ascertaining whether the pupils comprehend what they read, and of ensuring that they shall do so. It may be added that English is not taught to pupils in the lower primary stage, and that substantive instruction in the three lowest classes of an English school is invariably conveyed through the vernacular. In Bombay also no English is taught in the four lowest standards, as far as the upper primary examination; and in middle schools it is taught mainly as a language.

In the North-Western Provinces the opinion of the Government is very clearly expressed in a sense altogether opposed to that of the Commission and of the Government of India. "Instruction in special subjects," it is observed, "such as mathematics, history and geography, has for some years been conveyed to pupils in the middle stage through the medium of the vernacular, but it may be doubted whether the results of the experiment have been wholly satisfactory. There appears to be a general consensus

of opinion among both teachers and inspectors that while pupils whose education stops with the middle course derive no appreciable benefit from the practice, it is distinctly disadvantageous to those who proceed to the University course by compelling them to learn the same subjects first in one language and then in another. This view appears to be supported by the diminished proportion of passes to failures at the entrance examination since the practice has been introduced, and the subject is one which will have urgent claims on the attention of the new University." This clear expression of opinion, based as it professes to be on an experience of both systems, is of great value. At first sight it would appear to be altogether opposed to the conclusions arrived at after similar experience in Bengal. But a closer examination leads to the belief that the contrasted views are not really irreconcileable. In the North-Western Provinces the middle school course is merely the high school course shorn of its two highest classes. There is no separate standard, as there is in Bengal, for middle schools, based on the requirements of those who proceed no higher and altogether independent of the University. The middle school standard in the North-Western Provinces is merely a stage through which the pupil passes on his road to the entrance examination. The experience of the North-Western Provinces is therefore to be compared with that of Bengal so far as it relates to high schools only; and in Bengal it is not insisted on that pupils in high schools should postpone the use of English as the medium of instruction until two years from matriculation. It is to the middle English school, with its separate course and standard and not to the middle stage of high school instruction, that the views expressed in Bengal have chief reference; and the requisite experience is altogether wanting in the North-Western Provinces, where that special class of schools does not exist. With regard to the teaching of English, the opinion is very strongly held that it should begin from the lowest classes of a high school. Mr. Nesfield, Inspector of Schools, and formerly Director of Public Inspection in Oudh, is convinced that a boy who reads to the upper, or even to the lower primary standard in a high school and then stops, is better educated than one who reads to the same standard in a primary school. Boys of the former class know their own vernacular quite as well as the others, and they have had their wits sharpened and their sphere of knowledge extended

by learning something of English besides,—not much indeed, but enough to serve many useful purposes in after-life. And they are better trained than the others, because they have had the benefit of zila school discipline under the guidance of a highly paid and experienced head-master. Furthermore, if this preparatory teaching were abolished, the upper classes would rapidly deteriorate, since it is only in the primary classes of zila schools that students can be so grounded in English as to be qualified for admission to classes where English is taught side by side with the vernacular up to the secondary stage. "It is a necessity which has brought the primary Anglo-Vernacular classes into zila schools, and it is a necessity which will keep them there." These observations appear to have met with the approval of the Local Government.

The Punjab, with the same school system in essential points as the North-West, has come to a widely different conclusion with regard to instruction through the vernacular. The middle school standard, in both provinces alike, is that of the seventh class in a high school; and the corresponding examination has always been, and still is, conducted in the Punjab through the medium of the vernacular in all subjects. When English is taught in Government or in board schools, and generally in aided schools also, it is taught as a language, and is not employed as the medium of instruction. In the Punjab no objection has been raised to this practice; nor is it alleged that a student suffers from being compelled to learn history, or science, or Euclid, first in his own vernacular, and then by means of English text-books for the entrance examination. Indeed, if he has been well grounded in these subjects in the middle stage through the vernacular, his subsequent study of them in English text-books would partake, partly of the character of an easy revision of matter already known, and partly of a new series of lessons in English.

Of the Central Provinces it is stated that the Education Commission misconceived the character of the system. Instruction through English was characterised in the Commission's report as the leading note of secondary education in these Provinces. It is now explained that this does not represent the actual facts. In the first place, no pupil can enter a middle school or begin the study of English until he has passed the lower primary examination; in other words, his

first three years of study are confined to the vernacular. In the second place, he in no case receives instruction through English until he has learnt English, as a language only, for one year more. It is only in the five highest classes of a secondary school that substantive instruction is conveyed through English. So explained, the system in the Central Provinces seems to carry out effectively the views which the Commission adopted and which the Government of India approved. Mr. Browning's remarks on this point are worth attention partly because they seem to be directed to some extent against the system which he administers :—"All the masters in our departmental middle schools are natives of India, and are usually natives of these Provinces. There is thus every guarantee that instruction should be conveyed through the vernacular ; and there is a danger lest English should be taught rather as a dead than as a living language, rather by means of grammar than by conversation and by using the language in the higher classes as a medium of instruction. Every effort is made to counteract this tendency. I do not see why a student should not be able to express in English all his ordinary wants and wishes after he has attended an English school for twelve months."

From what has preceded the balance of opinion may now be struck. In those Provinces in which middle English schools have an independent course and standard of their own, determined by the requirements of pupils most of whom proceed no further than the middle stage, it is not denied that instruction can most usefully be imparted through the vernacular. When the middle school source is merely a section of the high school course, and is to be pursued alike by those who are preparing for the matriculation examination and by those who are not, there is still a preponderance of opinion in favour of teaching English as a language only, and of imparting substantive instruction through the vernacular. In the North-Western Provinces this method now finds no favour ; but the objection to it is chiefly based on the disabilities which it is believed to impose on students preparing for matriculation. The other class of students are merely thought to derive "no appreciable advantage" from instruction through the vernacular. Greater difference of opinion prevails as to the most suitable course, from the alphabet to matriculation, for those students who are preparing for the entrance

examination. The course of nine years may conveniently be divided into three approximately equal sections. In the lowest stage of two or three years, instruction must necessarily be imparted through the vernacular almost exclusively; and the only difference of opinion arises on the point whether English should be taught at that stage. The balance of opinion appears to incline to the view that it should not then be taught, though the opposite view is very strongly held by competent authorities. In the next or middle stage opinion seems to lend stronger support to the employment of vernacular text-books in history and such like subjects, more especially if a commencement of English has been postponed to this stage. In the last two, three, or four years of the course, it is by unanimous consent allowed that the vernacular should be altogether put aside (except for purposes of translation and composition), and that English text-books should be exclusively used. The whole question seems to be one which might with great profit be submitted in each province to the judgment of an Educational Conference, in which the head-masters alike of departmental and board schools and of those under private managers should be represented, and in which the practical results of different methods might, when possible, be compared.

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(4)

PROGRESS OF EDUCATION IN INDIA, 1887-88 TO 1891-92.

Second Quinquennial Review.

By A. M. NASH, Esq., M.A., PROFESSOR, PRESIDENCY COLLEGE, CALCUTTA. Calcutta, 1893.

Page 100.

Para. 93.—*The Medium of Instruction in Secondary Schools.*—The question whether English or the Vernacular should be the medium of instructions in Secondary Schools was fully discussed by the Education Commission (paragraph 250 of Report), but no definite recommendation was made. The question was afterwards referred to the various Local Governments, and a summary of their opinions is given in paragraph 162 of the last Review. The opinion of the Government of the North-Western Provinces was adverse to the retention of the vernacular as the medium of instruction in Middle English Schools,

and in 1889 the curriculum in these schools was revised in accordance with this opinion. Since 1891 the Anglo-Vernacular Middle examination has been conducted in English, instead of in the vernacular, and in the schools instruction in all subjects is now given in English. The course of instruction is so arranged as to lead up definitely to the entrance examination, and Middle English schools are now merely feeders of High Schools. It is too early yet to form any opinion of the results of the change, as the schools are still in the transition stage. "Men, who for many years past have been teaching everything in the vernacular, cannot now express themselves in English as they formerly did, and the young men, who have been more recently appointed and whose own training was imparted to them under that retrograde system, are under the same difficulty. Neither students nor pupils can now speak to each other in the language with which, if they desire to prosper in life or take up any of the modern professions or carry their studies far enough to obtain a University degree, they must make themselves familiar." In the Central Provinces, the new upper primary examination has led to a slight change in the opposite direction. Scholars are now required to remain a year longer in the primary, or vernacular Department, and so acquire a more thorough grounding in the vernacular and in general subjects before commencing the study of English. In Bengal, both systems have been tried in high schools for the last fourteen years, but opinions are still divided as to their merits. In one division the vernacular system was tried, and resulted in a failure, but this is ascribed by the Director partly to the opposition of the head-masters, and partly to the inefficiency of the lower teachers employed. In another division the Inspector cites figures from the reports of the head-masters, proving the complete success of the system, so far as it can be tested by the results of the entrance examination, by a comparison of boys prepared under the new system and under the old. In the last report, speaking of the same system, the Director says, "It is least thought of where it has been least tried. That it combines the elements of cheapness and soundness is not denied. The advantages of imparting a rudimentary knowledge of the principal subjects of study through one's Mother-tongue are admitted by experienced educational officers, as well as by independent native gentlemen who have themselves received such a training

in earlier days. But the system is distrusted as tending to retard progress in the English language ; and it is therefore advisable that its adoption should be left to the good sense of the people themselves and not forced upon them by the Department." In another place the Director says :—"The question has acquired additional interest from the circumstance that in the Bombay Presidency, where the (vernacular) system does not exist, warm discussions have been going on in the newspapers as to the difficulties attending the compulsory study of all school subjects through English. A Bombay authority goes so far as to say that all subjects other than English 'should be taught through the medium of vernacular languages, and all examinations, even the highest University Examinations, should be taken in the Vernaculars.'" There is no allusion to the subject in the Bombay report.

The principal arguments for and against the system are given in the following note by the Inspector of schools on a Resolution passed at a Conference held in Dacca in 1891, on the management of high English schools. "One of the arguments urged by those who are against the system of placing entrance schools upon a vernacular basis, is that the study of history, geography and mathematics, through the vernacular retards the acquisition of a knowledge of the English language, which is of much greater importance than any other subject of study. This objection may be considered as groundless, because there is no doubt that boys are able to master what they have to learn in history, geography, and mathematics much more speedily and effectively if they learn those subjects in their vernacular than through the English language. The time and labour thus saved may very easily be devoted to a more thorough study of the English language. "The second objection urged by them seems, however, to be more reasonable. It is to the effect that when an entrance school is placed upon a vernacular basis, it requires a longer time for a student to come up from the beginning to the entrance examination than if he had read in an entirely English school. The loss of one or two years which the former system entails is really objectionable. It seems to be due to the fact that, as the University does not allow a candidate to answer questions in history, geography, or mathematics in the vernacular, the students of a school placed upon the vernacular basis have at first to learn those subjects in

the vernacular, and then to go over the same ground in English, in order to prepare themselves for answering questions in those subjects in the English language. So long as the University does not change the present rule, the real question for consideration is whether the study of those subjects at first in the vernacular and then in English, is really more effective and expeditious than if those subjects were learnt in English from the beginning. It was felt at the Conference that there has not yet been sufficient experience in the matter in the Eastern Circle to enable the members to express any decided opinion on the subject. The matter has therefore been left open."

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(5)

REPORT OF THE DIRECTOR OF PUBLIC INSTRUCTION, BOMBAY.

Report of the Director of Public Instruction, on the Progress of Education during the quinquennium from 1892-93 *to* 1896-97, *and on Public Instruction in the Bombay Presidency for the year,* 1896-97.

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SECONDARY EDUCATION.

28. *Character and Scope of Secondary Education.*—Secondary Education in the Bombay Presidency may be defined as that Education, other than special, in which English is the main feature of the curriculum and which leads up to the collegiate course or to the School Final Examination. The definition is not complete, for there is an examination qualifying for admission to the lower grades of the public Service which is equal in curriculum to Standard V. of the High School Course.

The main feature of Secondary Education in Bombay is that it does not recognise what are termed middle Vernacular Schools. The Vernacular Instruction given in the highest standards of a primary school is, it is true, carried on partially in the lower standards of a secondary school, but the main object in Bombay is to keep the primary and secondary schools absolutely distinct, and to have a primary course complete in itself, and not sacrificed to the secondary course in any respect.

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33. *The teaching of English in Secondary Schools.*—As our Secondary Schools contain no purely Vernacular Departments, the boys in

the schools are practically all learning English, and the figures given in the table show that out of 32,878 boys only 6 were not learning English at the end of the year 1896-97.

	Total Number of Scholars in Secondary Schools, English.	Number of Scholars Learning English.	Percentage.
Bombay	32,878	32,872	99·98

34. *The Medium of Instruction in Secondary Schools.*—It is complained in Mr. Nash's report that the Bombay report has no information on this point. This is probable, as there has been no change in practice for many years. In this Presidency the vernacular is the medium of instruction in the middle stage; *i.e.* Standards, I—III, and English becomes the medium of instruction in the high school stage, Standards IV and onwards. Sensible Inspectors would not be hard upon a school where boys in Standard IV. were unable to answer questions fluently in English, but what is claimed for our system is that as the acquisition of English is the end and aim of this class of education, boys will acquire it more thoroughly if taught to practise it constantly. I have never heard of serious objections to the system, though I have known several cases in which managers have wished to discard the vernacular altogether. This the Department refuses to allow, holding that a pupil will learn English more quickly and thoroughly if he has a competent knowledge of his vernacular. No boy from a vernacular school is allowed to join an English school till he has passed Standard IV of his vernacular, and he continues his vernacular studies for three years more in the middle school. Thus he has had seven years of vernacular study before he discards the varnacular as a medium. I do not know who the authority in Bombay may be who is quoted by Mr. Nash as holding "That all subjects other than English and all examinations, even the highest University examinations, should be taken in the vernacular," but I believe that such an opinion would be acceptable to few teachers or students, and the Professors in our Colleges would hardly care to be called on to lecture in the vernacular to a mixed class of Europeans, Parsis, Mahomedans and Hindus, from Kanara, Gujarat and the Deccan.

APPENDIX C.

QUOTATIONS FROM EUROPEAN AUTHORS.

(6—9)

Essays on Educational Reforms by Robert Herbert Quick, M.A., 1890.

Page 111.

We saw that Sturm, the leading school-master of Renascence, tried to suppress the mother-tongue and substitute Latin for it. Against this, a vigorous protest was made in this country by Mulcaster.

Page 159.

As the Jesuits kept to Latin as the common language of the Church, so Comenius thought to use it as a means of inter-communication for the instructed of every nationality. But he was singularly free from over-estimating the value of Latin. . . . On this subject, he expressed himself with great emphasis. "We desire and protest that studies of wisdom be no longer committed to Latin alone, and kept shut up in the schools, as has hitherto been done, to the greatest contempt and injury of the people at large, and the popular tongues. Let all things be delivered to each nation in its own speech."

Page 184.

As I have tried to explain (supra pp. 14 ff.) the effect of the Renascence was to banish both the mother-tongue and literature proper from the school-room; for no language was tolerated but Latin, and no literature was thought possible except in Latin or Greek. Before any literature could be known, or indeed, instruction in any subject could be given, the pupils had to learn Latin. This neglect of the mother-tongue was one of the traditional mistakes pointed out and abandoned by the Port Royalists. "People of equality complain," says De Saci, "and complain with reason, that in giving their children Latin, we take away French, and to turn them into citizens of Ancient Rome we make them strangers in their native land. After learning Latin and Greek for 10 or 12 years, we are often obliged at the age of 30 to learn French." (Cadet. 10.) So Port Royal proposed breaking through this bondage to Latin, and laid down the principle, new in France, though not in the country of Mulcaster, or of Ratke, that everything should be taught through the mother-tongue.

Next, the Port Royalists sought to give their pupils an early and a pleasing introduction to literature. The best literature in those days was the classical; the suitable works from that literature might be made intelligible *by means of translations*. In this way, the Port-

Royalists led their pupils to look upon some of the classical authors not as inventors of examples in syntax, but as writers of books that *meant* something. And thus both the mother-tongue and literature were brought into the school-room.

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(7)

Jean Paul Friedrich Richter's Levana or the Doctrine of Education, London, 1887.

Page 103.

Up to the thirteenth or fourteenth year, the flowers of poetry are so many dried specimens for a herbarium. The child's mind is open to the individual elements of poetry, namely, rhythmic sound, picturesque words, happy thoughts, but not to the charm of the whole. Rhymes, full-sounding prose, are of most use in early years in awakening the sense of beauty in this direction. But when maturity approaches, and the joy-fires of life are kindled, and all the powers develop, then let the true poet approach; let him be the Orpheus to animate the lifeless, as well as to tame the wild beasts. But what poets shall the educator introduce? Our own! Neither Latin, nor Greek, nor French, but our own. Let the English choose English, the Germans German. . . . Only when we remember the poverty of the Dark Ages, whose expiring life was reanimated by the miraculous power of the Greek and Roman spells, can we understand the existing absurdity that, instead of forming and maturing the sense for foreign and ancient literary beauty by means of that which is native or nearly related and recent, exactly reverses the order.*

The most rapid comprehension and appreciation of the fine gradations of colouring in a poetical work, the keenest sympathy with its subject, is only possible for one of the poet's own countrymen; and if the reality attaching to one's fatherland assists the poet to lay on the colours, it will also assist the reader to see them.

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* Editor's note.—Richter's reasoning is based on the important educational principle "from the known to the unknown;" he is extending the application of it to the training of a complex emotion.

Editor's remarks.—"After the minor Gods of the House and hearth," have been duly enshrined, the earliest poets of one's native land should be read—for the modern are soon read with too much facility to make adequate impression—thus patrioitsm will be deepened and the mother-tongue read in models of the language.

(8)

EDUCATION AS A SCIENCE.

By Alexander Bain, LL.D.

London, 1889.

Page 213.

"In point of difficulty I would compare grammar to the commencement of Algebra ; meaning by grammar—Analysis of Sentences, the definitions of the parts of speech and the equivalent functions of the single word, the phrase, and the clause. There are easier parts of grammar ; both Inflexion and Derivation are easier than parts of speech and syntax ; but it is scarcely worth while introducing these much before the age when every part of grammar may be understood."

Page 312.

" It has to be borne in mind that to teach language is not to teach knowledge, in the sense that we usually understand knowledge ; as history, geography, science, the arts. Neither is it to impart lofty or poetical sentiment or moral elevation. In those matters, language is the vehicle or instrument ; but while we are *using* it for such purposes, we are not expressly teaching it. True, to employ language for any purpose is an indirect and unintentional way of giving instruction in language ; and a large part of our language education is gained in this form ; but such an effect is to be kept distinct from language exercises properly so called.

The situation of carrying on a double subject is of frequent occurrence in our intellectual culture ; many branches of knowledge have a two-fold aspect ; and it is easy to go wrong in dealing with this situation. The fact never to be forgotten is that the human mind can attend to only one thing at a time, although it may shift the attention very rapidly, and thus overtake two or more things by turns. In matters of education, however, where different subjects have to be mastered, or where numerous details have to be impressed on the memory, concentration on one exercise for a certain time is indispensable ; and, in those subjects that proceed on a double line, the attention should be sustained in one of the two directions, instead of fliting between both."

Page 316.

"This single example is enough to show how the power of apprehending meanings is essential to rapid progress in language; that is to say, the knowledge of things should always keep ahead of the knowledge of terms. To force on prematurely the knowledge of unfamiliar subjects, in order that a very young pupil may learn a hard language, as Latin, is working at the wrong end. If we are to read any author as lingual exercise, it is desirable that we should previously understand his subject as a knowledge exercise; we are then in the proper position for acquiring the vocables and forms of language employed by him for expressing that knowledge. To learn the Greek phraseology for Geometry, we should first understand Geometry, by studying it through our own language, and should then read Euclid in the original. It is not too much to say that the best geometer would make the most rapid progress in the Greek; even the superior verbal memory of the young, or of those unusually gifted with verbal adhesiveness, would not make up for an imperfect hold of the subject matter; a good mathematician of fifty would probably finish the task sooner than a half-taught youth of fifteen, with the memory for words almost at the very best.

Here we see one of the weak points of the early study of foreign languages, and especially of dead languages. The strong point is the freshness and force of the memory, coupled with the inaptitude of the reason for the higher kinds of knowledge. But unless the language is acquired with reference to the things actually understood by the pupil, it will not take hold even of the best memory." . . .

"The disadvantage of combining language teaching with the teaching of things is, as we shall see, inevitable (although it may be mitigated) in the mother tongue, but need not be repeated, as it often is, in foreign languages. In these the subject-knowledge might always be well ahead of the language study. The seeming objections to such a course may be met by a preponderance of counter considerations."

Page 339.

We are too much given to supposing that the necessities and the benefits of grammar are the same for our own and for foreign languages; yet the difference of situation is considerable. Before we

begin our own grammar, we have learnt, in a desultory fashion, the great body of what it teaches; when we begin the Latin grammar, we find everything new. We could go on speaking and writing our own language very well without having ever seen a grammar; we could not read a sentence in Latin, without some previous grammatical teaching.

This last condition might be evaded, by our being put through a course for a dead language similar to what we have gone through for our own; but the process is a clumsy attempt at reproducing a situation that cannot be reproduced; the only thing approaching to it, being the learning of a foreign living language by residence in the country. In beginning any new language, if we are at an age when the knowing and reasoning faculties are operative, our quickest course is to learn grammar. The reason is obvious. The grammar abridges the labour, by generalizing everything that can be generalized. . .

Page 343.

Many persons are beginning to see the mistake of commencing grammar with children of eight or nine years of age. Experience must have impressed teachers with the futility of the attempt. Simplifications of various kinds have been tried. Easy ways of presenting the subject have been suggested to commence with; the difficulties being postponed. Unfortunately for such attempts, the difficulties lie at the threshold, and cannot be evaded without rendering the entire subject a nullity. . . .

Page 345.

Taking English grammar as a whole, easy parts and difficult together, I venture to think that it cannot be effectively taught to the mass before ten years of age. To smooth over the asperities, and to pick out what happens to be simple, in order to adapt it to an earlier age, is not to teach the subject in its proper character, but as a mongrel compound, half understood and quite inadequate for the ends of grammar. It is the worst economy to anticipate the mind's natural aptitude for any subject; and the aptitude for grammar in its true sense does not exist at eight or nine years of age. I have already expressed the opinion that it is more difficult than Arithmetic, and is probably on a par with the beginnings of Algebra and Geometry. Commenced at a right age, not only is the tedium of the acquisition

vastly reduced, but the advantages are realized in a way that is impossible when it is entered on too soon. . . .

Page 357.

As regards the best mode of using the selected Works of our great Authors, I have to fall back once more upon the great principle of Division of labour—the separation of the language from the matter. A portion of Bacon, of Addison, of Burke, of Macaulay—may be a knowledge lesson or it may be a language lesson. In present practice, it is apt to be both. But, as I have said, the English Teacher should have nothing to do with the matter, except in relation to the manner. He may read with his pupils Burke on the French Revolution, but he should not trouble them with the Political thoughts, but only with the conduct and method of the exposition—with the sentences, the paragraphs, the illustrations, the figures, the qualities, the diction. He does not need to make them con the entire treaties, with its interminable repetitions. It is his business to indicate important peculiarities in the expression and in the handling—what to imitate and what to avoid in the one or in the other. When he has got out everything of this kind that the work can yield, he has done enough. . . .

Page 382.

On the supposition that the classical languages are taught, not in their simple character as languages, but with a view to logical training, training in English, literary culture, general philology,—the carrying out of so many applications at one time, and in one connection, is fatal to progress in any. Although the languages may never actually be used, the linguistic difficulties of the acquisition must be encountered all the same; and the attention of the pupil must be engrossed in the first instance with overcoming these difficulties. It is, therefore, an obvious mistake in teaching method to awaken the mind to other topics and considerations, while the first point has not been reached. I have everywhere maintained as a first principle of the economy or conduct of the Understanding, that separate subjects should be made separate lessons. This is not easy when two studies are embodied in the same composition, as language and meaning; in that case the separation can be effected only by keeping one of the two in the back-ground throughout each lesson.

(9)

REPORT ON THE IMPROVEMENT OF INDIAN AGRICULTURE.

By John Augustus Voelcker, Ph. D., B.A., B.Sc., F.I.C.,

Consulting Chemist to the Royal Agricultural Society of England.
London, 1893.

Page 379.

Agriculture is by far the most general pursuit (1), and it is that which contributes the bulk of the Revenue of the Country.

Page 380.

The Agricultural Education of the masses, though it is what must be aimed at, can at first have no *immediate* effect. There are not merely the scholars at the different grades of schools to educate, but there are also the teachers, who will require systematic instruction before they can properly direct the training of their Pupils. All this will require time to develop. But the sooner the work is begun the better. In addition, there are landed proprietors who require education in Agriculture, there are the future agricultural experts,

(1) " The Government of the late Lord Mayo, in a Minute dated the 6th of April 1870, recommended to the Secretary of State for India, the establishment of a Department of Agriculture and Commerce. The following extract embodies the ideas of Government on the subject :— . . .

" It is not necessary to dwell upon the obvious and vital necessity of increasing, in every practicable way, the supply of food available for the people of India. How this consideration affects all the prospects of the permanent material advancement of the country, has, of late years, been painfully and repeatedly shown by the late Famines which have taken place, and to the recurrence of which we shall ever be liable until the production of cereals is rendered more certain, and the facilities of conveyance immensely developed. For many generations to come the progress of India in wealth and in civilization must be directly dependent on her progress in agriculture. In India Agricultural and Commercial Progress go together. Agricultural products must long continue to constitute the most important part of our exports ; and the future development of Indian Commerce will mainly depend on the improvement in the quantity and quality of existing agricultural staples, or on the introduction of new products which shall serve as materials for manufacture and for use in the industrial arts."—*Vide* page 338. Indian Agriculture as seen by Robert Wallace, Esquire, F.L.S., F.R.S.E., &c., Professor of Agriculture in the University of Edinburgh. M. J.

to whom the work of enquiry is to be entrusted, and lastly there is the large class of subordinate officials of the Land Revenue Department, for whom an agricultural training is an undoubted *desideratum.*

The existence of different classes for whom Agricultural Education is to be provided in the near future points to the necessity of beginning the work, not from the lowest level alone, nor yet from the highest point alone, but from both simultaneously. Just as it would be unwise to neglect Agricultural Education of the higher type, and to provide merely for instruction of an elementary nature, without seeking to improve the standard in the future by the accession of men who have received a higher training, so would it be equally unwise to delay the commencement of the education of the masses until a fully competent teaching element had been provided, which might cause the stream of agricultural Instruction to filter down from the upper to the lower classes. It seems to me that the best plan is, to make use of such resources as at present exist, and to seek to improve them by securing a succession of Teachers who have received a high-class training, and have in their turn become fitted to be the instructors of other more elementary teachers. In short, I think that the work of high-class and of elementary instruction in agriculture should go on simultaneously, and that no system will be satisfactory which does not provide for both. . . .

Page 385.

In Middle Schools, the elements of physical science should be taught, and it would be well, too, were more attention given to drawing. Agricultural Science might be introduced in Middle schools by means of text-books in the Vernacular, so also might elementary botany and physiology. . . .

Page 386.

At Primary Schools, the most that can well be done in order to further agricultural teaching is to introduce "readers" having familiar agricultural topics and illustrations as their subject, and also to give "object lessons." . . .

There remains but one other class of schools of which I shall speak, the normal schools for teachers. The teachers cannot all go through a special training in Agriculture, seeing that Agriculture is but one of

several subjects, which they will have to teach, but it is very desirable, and indeed necessary that they should receive sufficient instruction in it themselves to be able to understand and to intelligently teach out of an agricultural text-book. . . .

Page 387.

In India, as in England, attention must, therefore, be specially given to the training in agriculture of those who are to instruct the future generation of cultivators, and the teachers in Primary Schools ought to show their capability for doing this. . . .

One of the difficulties in the way of spreading education, is undoubtedly, *language*, or rather the multiplicity of languages. I noticed this when I was at the Forest School at Dehra, during the holding of our Examination there. . . Even in one and the same Province, several different languages and dialects will be spoken, and the text-book will have to be translated into each. . . .

Page 395.

There is great need of Agricultural text-books suited to the circumstances of the different parts of India, and these should be in the Vernacular as well as in English. . . .

Recommendations.

. . .

That Agricultural Education forms a part of the general educational system and be introduced as a prominent subject in the schools of the country.

That text-books on Agriculture, adapted to the different parts of the country, be prepared as early as possible.

APPENDIX D.

OPINIONS—BOMBAY.

(10—28)

SIR W. W. HUNTER'S EDUCATION COMMISSION.

The Bombay Provincial Committee's Report.

(Extracts from the Report.)

Volume I, page 147.

It seems to us that the present Dakshina fellowships (1) attached to the Elphinstone, Deccan and Gujarat Colleges, are of very little use as at present constituted. They are tenable for only one year, and it is vain to expect that such a short tenure should enable the holders to fulfil in any perceptible degree the objects with which, as has been already stated, the fellowships were originally founded. We would recommend that these fellowships be converted into University-fellowships, tenable for four or five years, the holders undertaking to continue their studies in special departments of learning and to give some tangible proofs of having done so. Two or three of the fellowships might be specially devoted to the cultivation of the vernaculars, and thus a step taken towards the attainment of the original objects of the College-fellowships. Such a step will probably add strength to the movement which has already commenced for aiding in the development of the vernacular languages. It will, of course, not be sufficient to limit the number of University-fellowships by the supply of funds which are at present spent on the College-fellowships. But having regard to the benefit which every part of the whole scheme of national education, from the primary school to the University, would derive from the improvement of vernacular literature, we are of opinion that no object would be more deserving of liberal State assistance, if private liberality would come forward to make the necessary commencement.

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(1) Note.—The following extract from the Administration Report of the Bombay Educational Department for the year 1884-85, submitted by Sir W. Lee-Warner, I. C. S., K. C. S. I., Acting Director of Public Instruction, may also be usefully quoted here.

Page 135.

Dakshina Fellowships.

The origin of the Dakshina fellowships has already been described. Two questions regarding them have been raised by the Education Commission. The first question concerns their award to the graduates of Government Colleges, the second concerns the nature of the fellowships and the duties assigned

to the fellows. The Education Commission took note of the increasing number of graduates turned out by aided Colleges. If the Dakshina fellowships are paid for from public funds, the inquiry was suggested why the graduates of aided Colleges should not be eligible for competition for these prizes. The second question may be stated thus. The holders of these fellowships are engaged in giving lectures in the Government Colleges at Poona, Bombay and Ahmedabad. Most of the fellows are studying for the degree of Master of Arts, and the fellowship is more like the " foundation scholarships " at Cambridge than the fellowships of the English Universities. Is it wise to turn these fellowships into College tutorships given to students who are still studying for their degrees ? These two questions cannot be answered without an examination of Mr. Howard's scheme which was approved by the Secretary of State. Mr. Howard's first letter No. 328, dated February 27th, 1857, proposed that the examination for the election of Dakshina fellows should " be open to all castes and countrymen." " Candidates would have to show that they have received a good general education, and are thorough Maratha scholars, and further must exhibit a special acquaintance of a superior kind with some branch of useful knowledge as Law, Natural Science, History or Mathematics." The fellowships were to be probationary for three years, then to rise to Rs. 80, and after a further period of three years to Rs. 100. It is thus clear that the fellowships were not to be tenable, as at present, for only a year. But Mr. Howard remarked that experience only would show " what remuneration will command the services of really learned and scientific men." Each fellow was to deliver a course of lectures in the Poona College and publish one treatise every year. The object was more clearly stated as that of " stimulating and concentrating the energies of our ablest young men for the best years of their life on those pursuits for which they have a particular aptitude. We should rear a race of Native Savants and Pandits whose acquirements would command the respect of Europeans and of their own countrymen." " What we want is a race of Native authors who being full of sound learning and European science would, out of the fulness of their minds, write books of authority fashioned in native moulds of thought." Mr. Howard in a subsequent letter No. 1561, dated 7th July 1858, recognised the inconvenience of giving to the Poona College the whole advantage of these fellowships. Accordingly he proposed to include the only other College, then existing, in the scheme. " The University system will most probably create a demand for private tutors, and the Dakshina fellows may most usefully be permitted to increase their income in this way." He proposed 5 senior fellowships on Rs. 100 a month with allowances to three Fellows of Rs. 1,680 per annum, and 10 junior fellowships on Rs. 50 a month with allowances aggregating for 3 of them Rs. 840 a year. The junior Fellows were to be shared by the 2 Colleges, and one was to be selected for proficiency in Gujarati. These junior Fellows were to be selected by examination held by the Director in Bombay, and the following clause is noteworthy. " The competition is open without reserve to all persons who have taken the degree of B. A. in *an Indian University*, provided that each candidate must be conversant with one of the vernacular languages of the Presidency, that is to say, either Marathi, Gujarati,

Hindustani, Kanarese or Portuguese. Junior fellowships are tenable for five years with a power of re-appointment for two years." The senior fellowships were reserved for M. As. to "be appointed by examination to be held in Bombay as vacancies fall in." The senior Fellows were to be attached to a Government College and to give instruction to the students. Government Resolution No. 1846, dated 21st July 1858, approved of these proposals. The Secretary of State approved of this scheme, but suggested that the examinations should be held at Poona, and the subjects should be such as would encourage learned Hindus to compete. From this review it will appear first that the Fellowships were intended to be open to all competitors, irrespective of caste and even irrespective of Colllege, provided they were graduates of an Indian University, and were to be awarded as the result of a competitive examination : and secondly, that the idea of the Fellows being attached to Colleges as tutors was part of the original scheme as modified by Mr. Howard and sanctioned by Government. The rapid increase of salaries to Native officials, which recent years have witnessed, proved incompatible with the retention of the Fellows at the Colleges on these terms. Hence the Fellowships have constantly changed hands, and at present they are held by graduates in the Government Colleges at Poona, Bombay, and Ahmedabad, who are selected by the Director without examination from the most promising students in the Government Colleges. A return to the old scheme of public competition, to which the students of all Colleges shall be eligible, would meet one of the views enunciated by the Education Commission, and also correspond with the original intentions of Government."

The Provisional Rules issued in 1895 are given below.

Provisional Rules for Dakshina Fellowships.

I. The following rules are sanctioned from the 1st of January 1896 until further orders.

II. Subject to the observance by the Colleges of the conditions herein prescribed. Fellowships are allotted to the full time Colleges recognised by the University as under :—

Elphinstone College...	6 Fellowships	.....each of Rs. 50 per mensem.
Deccan College.....	6 Fellowships	.....each of Rs. 50 per mensem.
Wilson College.....	3 Fellowships	.....each of Rs. 50 per mensem.
St. Xavier's College...	3 Fellowships	.....each of Rs. 50 per mensem.
Guzarat College	3 Fellowships	.....each of Rs. 50 per mensem.
Sindh College	3 Fellowships	.....each of Rs. 50 per mensem.
Fergusson College.....	3 Fellowships	.....each of Rs. 50 per mensem.

III. The Fellowships are open to graduates of the Bombay University who are reading for a higher degree and willing to assist as tutors in the Colleges.

IV. In or about December of each year, the Fellowships will be filled up by the Director of Public Instructions on the nomination of the Common Room of each College.

V. The names of the candidates nominated by the Common Room for the Fellowships attached to the College should be submitted to the Director by the Principal of the College.

VI. Subject to the conditions of regular attendance, good conduct and satisfactory progress, the Fellowships are tenable for the calendar year, but it is open to the Common Room to recommend the re-appointment of a Fellow. It is also open to the Common Room to recommend the appointment of a senior Fellow on a double stipend in place of two junior Fellows. Fellowships can be taken away by the Director acting on the report of the Common Room of the College. No Fellow will be allowed to change his College.

VII. Fellows shall continue their studies and also take a small share in the College work under the supervision of the College authorities. The time-table showing the tutorial work of each Fellow must be submitted to the Director.

N.B.—These rules apply to girls as well as boys.

(Sd.) K. M. CHATFIELD,
Director of Public Instruction.

Poona, 10*th August* 1895. M. J.

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(11)

SIR W. W. HUNTER'S EDUCATION COMMISSION.

Bombay Provincial Committee's Report.

(Extract from the evidence of Ambalal Sakerlal Desai, Esq., M.A., LL.B.)

Vol. II., page 288.

In English schools, there is an additional source of mischief. Instruction in mathematics, history, geography, Sanskrit and physics is given through the medium of the English language, instead of through the vernacular. The student is not sufficiently advanced in his knowledge of English to grasp these subjects with the aid of English text-books. Within my own knowledge, lessons prescribed in history and Euclid required to be first explained by the teacher and then set to the pupils for preparation.

Now, I would urge that this method of instruction, though perhaps necessary at the earlier stages of the Educational Department, is quite unnatural and wasteful, and quite unnecessary now. A knowledge of these subjects has its own intrinsic value, whether they have been learnt through the medium of English or vernacular. In the case of students who intend to pursue their studies further, an acquaint-

ance with English text-books might be deemed requisite. To meet their case, candidates for University Matriculation should be made to revise the subjects through the medium of English text-books, and the lower classes in English schools may be, with advantage, examined in English in those subjects. The actual instruction, however, in all cases, ought to be imparted through the vernacular.

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(12)

(Extract from the evidence of Rao Bahadur Gopalji Surbhai Desai.)

Vol. II., page 290.

There should be three kinds of vernacular institutions—village or inferior schools, town or superior schools, and vernacular colleges. We have schools of the two former descriptions, and in place of the latter there are two training colleges in the Northern Division. But the course of instruction in all kinds of schools should be raised so as to satisfy the demands of the people in their different spheres of usefulness.

(*a*) The course of inferior schools should have four standards—teaching reading, writing, arithmetic up to rule of three and mental arithmetic, interest, principles of book-keeping, a few forms of bonds, outlines of geography of Gujarat and India, mensuration of fields, principles of sanitation, a useful acquaintance with agriculture and horticulture, tending of cattle and treatment of their diseases—in fact, a knowledge of such things as are usually and essentially useful to the villagers.

(*b*) The course of superior schools should have, as at present, six standards, and the institutions should also prepare boys for entrance to secondary schools and vernacular colleges. At present, the sixth or the highest standard of superior schools, if successfully passed by young men, makes them eligible for entering the lower grades of the vernacular branch of public service. But the course of the sixth standard being rather limited, the qualifications of the candidates for such service should be of a more practical and useful nature. They should, therefore, study for a time at least in the proposed vernacular college.

(c) The length of the course of studies in vernacular colleges should vary from one to three years according to the aspirations of the candidates. They should teach the elements of the higher branches of mathematics, principles of mechanics, geology, chemistry, botany, astronomy, political economy, and agriculture; history of England, advanced grammar and composition, vernacular literature, elements of Sanskrit to Hindus, and of Persian to Muhammadans and Parsis, and the art of teaching.

This may be considered as the highest course of vernacular education intended for those who cannot afford to join English schools, but who wish to receive high education in vernacular, as also for those who wish to enter the educational line of public service as masters of vernacular schools. Both those objects will be gained if the present training colleges be converted into vernacular colleges. Those poor young men who bind themselves over to serve as schoolmasters should be allowed stipends as at present, while those who want to study in the college merely for the sake of knowledge may be allowed to do so by free admissions after successfully passing the highest standard of the superior schools. By this arrangement the present want of trained masters will not only be largely supplied, but it will give the society useful and educated members. It will also improve the tone of vernacular education and literature. This arrangement is likely to involve a little additional expenditure in employing a few more masters in the colleges which can partly be met by with-holding a few scholarships and partly by a fresh grant from the funds which support the institutions.

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Page 296.

Cross-examination of Rao Bahadur Gopalji Surbhai Desai.

By Mr. Telang.

Page 296.

Q. I. With reference to your answer 2, would it not be better that the subjects in the high-school curriculum and others should be taught through the medium of the vernacular to all students than that a vernacular college should be instituted to give a separate vernacular education to a few students?

A. I. Many of the subjects taught in the high schools might be better taught through the medium of the vernacular. The plan suggested in the question would be better.

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(13)

SIR W. W. HUNTER'S EDUCATION COMMISSION.

THE BOMBAY PROVINCIAL COMMITTEE'S REPORT.

(Extract from the evidence of the Revd. Dr. Mackichan, M.A., D.D.)

Vol. II., page. 371.

"I do not consider that the production of a useful vernacular literature is so much hindered by the character of the text-book in use as by the undue attention which the English language receives at the hands of students. The vernacular finds little encouragement. A knowledge of English is the condition of success in life, and it is naturally sought after and acquired as speedily as possible. The vernacular is thus generally neglected, and the number of educated young men who have a scholarly acquaintance with their own tongue is daily decreasing. We make the study of the vernacular compulsory in all our standards; but we know that in many cases the hour thus spent in the daily study of the vernacular would be much more gladly devoted by the pupils to any other subject. I would suggest that Government should give special encouragement to the study of the vernacular in English schools."

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(14)

SIR W. W. HUNTER'S EDUCATION COMMISSION.

THE BOMBAY PROVINCIAL COMMITTEE'S REPORT.

(Extract from the evidence of Khan Bahadur Kazi Shahabudin, C.I.E.)

Vol. II, page 468.

"But a large number of pupils acquire their education in primary schools alone, and do not or cannot pursue it further in English. For such pupils especially the vernacular course of instruction should, I submit, be superior both in quantity and quality, so that when they leave the vernacular schools they may carry with them improved minds and some useful knowledge. It is rather hard for the masses

that they should not be enabled to acquire better knowledge than they now can through their own vernaculars. I am aware of the value of the English language as the medium of higher education, but what I submit is that the standard of instruction in the vernacular might be higher than it is.

It may be generally indicated that the vernacular course might include Algebra, Euclid, mensuration, elements of natural philosophy simple elements of chemistry (especially in reference to agriculture), the use of the globes, simple elements of political economy, history, grammar of a higher class, a critical study of the vernacular &c. I am aware that the higher books of the Gujarati vernacular series contain lessons on some of the above subjects. But these lessons are scattered, and are otherwise such that they do not supply the want above indicated.

It appears to me worthy of consideration whether vernacular high-schools should not be opened at central places.

It appears to me that the course of instruction given in secondary schools is designed to prepare pupils for higher institutions. In other words, these schools are so many links of the whole chain of instruction from the primary schools to the college. Thus, although the course of instruction given in secondary schools is useful so far as it goes, still I think that it is capable of improvement, specially in reference to pupils who do not wish to pursue, or owing to want of means are unable to pursue, their studies further. This improvement might be effected specially in the vernacular course. I have already indicated the direction in which the instruction given in primary schools might be improved.

Page 471.

Cross-examination by Mr. Lee-Warner.

Q. 7.—With reference to your answer 14, do you consider that Standards V and VI are not sufficiently high to meet the demand for primary education, and that the present course of instruction, so far from being too ambitious and unsettling, does not even meet the popular demand ?

A. 7.—I think that society is sufficiently advanced to create a demand for instruction in Standards V and VI. (1) I would even go further in Gujarat and add the subjects I mentioned in answer 14. My chief point is that Government ought to supply boys who cannot go into an English school, with a very complete education in the vernacular school which ought to include subjects that are now only taught in the Anglo-Vernacular School."

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(15)

SIR W. W. HUNTER'S EDUCATION COMMISSION.

The Bombay Provincial Committee's Report.

(*Extract from the evidence of the Rev. R. A. Squires, M.A.*)

Vol. II., page 483.

The vernaculars of this province are, I believe, properly recognised and taught within their respective districts.

But in connection with this subject I should like to suggest (1st) that in the Anglo-vernacular high-school—course, far more attention should be given to the vernacular ; it is a fact that a boy, as soon as he enters a high school, may give up entirely the study of his vernacular ; and (2nd) that in *all* English schools for Europeans and Eurasians, which are assisted by grants-in-aid, the study of some vernacular should be made compulsory. The University might do much more than it has done for the study of the vernacular both in

(1) "In Comenius' scheme there were to be four kinds of schools for a perfect Educational course :—1st, the mother's breast for infancy; 2nd, the Public Vernacular school for children, to which all should be sent from six years old till twelve ; 3rd, the Latin school or Gymnasium ; 4th, residence at a University and travelling, to complete the course."

The curriculum of the Public Vernacular School of Comenius was as follows :—"1st, to read and write the mother-tongue *well*, both with writing and printing letters ; 2nd, to compose grammatically ; 3rd, to cipher ; 4th, to measure and weigh ; 5th, to sing, at first popular air, then from music ; 6th, to say by heart Sacred psalms and hymns ; 7th, Catechism, Bible, History and Texts ; 8th, moral rules, with examples ; 9th, economy and politics, as far as they could be understood ; 10th, general history of the world ; 11th, figure of the earth and motion of stars, &c., physics and geography, especially of native land ; 12th, general knowledge of arts and handicrafts."—Essays on Educational Reformers by Robert Herber Quick, Esquire.

M. J.

English and Native schools. As for English schools, I would make it an absolute rule that all boys and girls who have passed a certain standard (say the fourth or fifth) should be obliged to take up one or other of the vernaculars. It would be far more useful in every way for those who have been born in the country and are likely to remain here to know one of the vernaculars well than to have a small knowledge, or even a large knowledge, of French or Latin ; and for the country, too, it would be a great advantage. (1) Even in this matter of education, what useful services they might render if they had such a knowledge of the vernaculars as might be gained by those who have studied them from childhood ? Also, as bearing on the same subject, I should like to point out that the system of higher education established in this Presidency has sadly failed to "enrich the vernacular literature by translations from European books, or by the original compositions of men who have been imbued with the spirit of European advancement,"—(Educational despatch, 1854.) So far from being "enriched," the vernacular literature of this Presidency is in this respect almost as poverty-stricken as it was thirty years ago. It is a stigma upon the higher education of our Government colleges, and upon the men who profit by it, that so little should have been done "to place European knowledge within the reach of all classes of the people," and it provokes the enquiry whether the higher education has not failed in one of its most important objects. This failure may be due in part to the indifference of the educated classes to the education of the people, but it must also be attributed in some measure to the misguided action of the University, and to the fact that the vernacular languages have been excluded from our colleges, and that consequently no means are taken for ascertaining whether the knowledge imparted has really been assimilated by the students and can be properly expressed by them in their own tongue. Surely in our colleges, if any where, and amongst the professional staff, we ought to look for a perfect acquaintance with the vernaculars of the land ; for how else can it be expected that they will be enriched with the best of Western literature and Western

(1) "A power of using the language of the people and of communicating to them in that language new ideas of right and wrong, may do what the sword and the Policeman's staff have (by the aid of interpreters) been unable to perform." *Vide* page 153, a sketch of the modern languages of the East Indies, by Robert N. Cust, Esq., London, 1878.

thought? "I have not stopped to state that correctness and elegance in vernacular composition ought to be sedulously attended to in the superior colleges. This is a matter of course in the scheme of instruction." (Lord Auckland's Minute, 24th November 1839, paragraph 20.)

In making these remarks I am not unmindful of the learned researches of a few individuals; nor do I forget the translations that have been made both from Sanscrit and English, or the useful school-books which have been prepared for the Educational Department. I fully appreciate what has been done; but still the results must be pronounced disappointing. It is perhaps worthy of notice that amongst European officials who have rendered valuable services to vernacular literature, the most distinguished have been military officers, and that these belonged to a bye-gone day when there was no University and no college.

Page 493.

CROSS-EXAMINATION BY MR. TELANG.

Q. 2.—Don't you think that "the almost utter dearth of an interesting and instructive vernacular literature" can be remedied effectually only by a development of the higher education and the creation of a learned class in the country?

A. 2.—Certainly; but I do not think that the present system is the one best calculated to develop the higher education or to produce a useful vernacular literature.

Q. 3.—Don't you think that the circumstances hitherto existing have been unfavourable to the creation of a learned class, and that even now there is not much encouragement to literary enterprise in this country?

A. 3.—The neglect of the vernaculars in the higher education must be included among the unfavourable circumstances to which you refer. The instruction of the masses and the promotion of vernacular literature which would act resiprocally upon each other, (1) have not

(1) "For many years, Pleaders' and Hospital Assistants' examinations were held in vernaculars, when text books in different languages had been prepared. Had these examinations continued, by this time there would have been many books on Law and Medicine in different vernaculars." Chintaman Hari Sohoni, Esquire, answers to questions from the Baroda Education Commission.—M. J.

received sufficient attention from those who have benefited most by the higher education. The education of the masses will naturally provide a larger field for literary effort.

Q. 4.—Is it not the fact that the beginning of a movement in favour of the development of the vernaculars is now perceptible ?

A. 4.—I hope so ; but I adhere to the opinion expressed in my evidence.

Q. 5.—Why do you say that it is a "stigma upon the higher education of our *Government colleges*" in particular, "that so little should have been done to place European knowledge within the reach of all classes of the people ?" does not the stigma rest on the aided colleges to an equal extent ?

A. 5.—Because Government colleges and aided colleges at present occupy very different positions, and the action of aided colleges must be determined in a great measure (even against their will) by the action of Government colleges. Besides, Government colleges, as being a part of the Educational Department, have had a predominating influence in determining the mode and course of studies.

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(16)

SIR W. W. HUNTER'S EDUCATION COMMISSION.

The Bombay Provincial Committee's Report.

(*Extract from the Memorial of the Ahmedabad Association.*)

Vol. II. Appendix, Memorials, &c., Page 1.

Judging from the repeated assurances of the Honourable the President of your Commission in favour of higher education, the Association deems it superfluous to dilate upon the subject. It would humbly submit, however, that to promote this very desirable object, the scope of instruction given in the vernacular schools ought to be much widened, so that it may be within the reach of those who have not the means of studying English to obtain the benefits of higher education through the vernacular. The Association expects solid advantages from an adoption of this course, which it believes would save the large waste of time and energy caused in the case of those

pupils who do not finish their education at the English schools, and that students will attain to a higher proficiency at a less cost of time and money than at present.

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(17)

SIR W. W. HUNTER'S EDUCATION COMMISSION.

The Bombay Provincial Committee's Report.

(Extract from Note on Education by Khan Bahadur Kazi Shahabudin, C. I. E.,)

Vol. II. Appendix, Memorials, &c., Page 64.

Another defect in the present system is that the primary education, or I should rather say education given through the vernaculars, is in no degree complete in itself. Those who planned the scheme of education in this country appear to have assumed either that no higher branches of knowledge could be taught through the vernaculars, or that every one who wished to acquire such knowledge must go to English schools and colleges. The consequence is that by far the largest number of scholars leave, or are compelled to leave, vernacular schools with some sort of knowledge, it is true, but with little of what is meant by education.

I am aware of the vigorous protest of Lord Macaulay against Oriental learning. But that protest was directed against perpetuating and propagating false knowledge, and no sensible man will now attempt to oppose his views. But his triumph appears to have led those who sided with him not only to discard Oriental learning, but also to despise the languages of the people as a medium of sound and useful instruction.

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(18)

UNIVERSITY CONVOCATION—BOMBAY, 1862.

(Extract from the speech by His Excellency Sir H. B. E. Frere, K.C.B.)

"I find that in 1859, the first Matriculation examination was held, when 132 candidates presented themselves. Of these only 22 passed. The cause of so small a proportion succeeding will be fresh in the recollection of all who took an interest in the University at that period. It was found that a great number of the candidates, who

would have been well qualified for admission, if judged simply by the progress they had made in those branches of learning which were to be the subjects of their University studies, were yet deficient in a complete and scholar-like knowledge of their own mother-tongue. I for one, while regretting the disappointment entailed on many an anxious and zealous student, cannot regret the decision at which the examiners of that period arrived, that a knowledge of the student's own vernacular language should be required as indispensable (1) in anyone who applies for admission to this University. It is, I am convinced, one great security for the future prosperity as well as utility of the University. . . .

I trust that one of your great objects will always be to enrich your own vernacular literature with the learning which you acquire in this University."

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(19)

UNIVERSITY CONVOCATION—BOMBAY, 1878.

(Extract from the speech by His Excellency Sir Richard Temple, Baronet, G.C.S.I., C.I.E.)

The instruction (in the Secondary or Middle Class Schools) will, indeed, be partly given in English, but mainly in the vernacular. The merits or the defects in this instruction will show the manner in which we sustain the acknowledged principle that, while English instruction is offered to the Natives, they should be thoroughly

(1) "While I would urge you to prosecute the study of English with increasing zeal as the best means of extending your knowledge, and as opening to you the sources of the purest, the most masculine, and most salutary truth, I would at the same time impress on you the necessity of an accurate acquaintance with your own language, in order to your success in almost every Department of exertion. English can never be the language of India. All the public business which affects the welfare of your countrymen is almost entirely conducted in the Vernacular language; the enlightenment of the people in which, all of you, I hope, aspire in some way or other to assist, must be effected through the same channel; and it ought to be an object of earnest desire to you all to see the gradual creation of a Vernacular Literature, distinguished both by the soundness and value of the matter it contains, and by the elegance of its vehicle. Whether, therefore, your object be your own individual advancement, or the improvement of your fellow-men, an accurate knowledge of the Vernacular, is, generally speaking, indispensable." —Address to his students by Mr. Muir, Principal of the Benares College.

M. J.

grounded in their own language. We duly perceive that, while many Natives learn English—the more the better—still many Natives, if they are to be educated at all, can obtain their education only through the medium of their own vernacular. Hence, a new vernacular literature has to be created ; and such a creation, if it be fully completed under our auspices, will be among the most enduring monuments of British rule in Western India. Already a good beginning has been made by several highly-qualified Native gentlemen. On various branches of useful knowledge, books will be written in the vernacular languages of this Presidency, and in a plain, practical style, some of which will be abstracts, others translations, *in extenso*, of English works. Some of these books, too, will be original works by Native authors who, having mastered for themselves the subject in hand, will expound it in their own Oriental mode of thought and expression for the benefit of their countrymen. We should afford the utmost incitement to Natives to attempt this original composition, as affording the best scope for that sort of independent self-sufficing ability which we most desire to evoke among them. Such labours do as much good to the writers as to those for whose instruction the books are written, and will raise up a class of Native thinkers whose mental achievements will be among the most substantial results of our educational system.

The several normal schools or training Institutions for vernacular schoolmasters form an integral part of this secondary division of our system. They really are our vernacular colleges. Through them, the resources of the ancient languages of India—languages unsurpassed in copiousness, in precision, in flexibility—are adapted to the diffusion of modern knowledge among the Natives. Through them, the dead languages of older times are used to preserve purity and expressive vigour in the living dialects. Through them, the Natives are taught that no man can speak or write his mother-tongue competently well, unless he knows something of the classic tongue of his ancestors.

To the students of these vernacular colleges, an example has been set by European scholars, such as Haug, Bühler and Kielhorn, members of this University. Some native scholars of this Presidency, such as Bhau Daji and Bhandarkar, have made additions to our knowledge of the ancient language of India which are appreciated at such seats of learning as Oxford and Berlin.

Time does not permit me to summarize the instances which might be adduced to show how popular ignorance of practical science is retarding the material progress of the country, and is even in some respects causing retrogression."

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(20)

UNIVERSITY CONVOCATION—BOMBAY, 1886.

(Extract from the speech by the Hon'ble Sir James Peile, I.C.S., M.A.)

Our elementary and middle school course has no regard to technical instruction, nor is it linked with a system of special technical and art schools for handicrafts men or for foremen and manager of works. Drawing is restricted to our High Schools.

Technical and Industrial Education.

Nothing that is not quite fragmentary is being done to develop the intelligence of our industrial Population as such. There is a dearth of skilled workmen, (1) of scientifically educated

(1) The following extract from a speech delivered by me as Dewan of Cutch on the occasion of a Prize Distribution at the School of Art, Bhuj, in November 1883, may well find a place here :—"A sound scientific and technical education is the crying want of India, and Cutch is no exception. When we review the history of most of the Western Nations, which now occupy a prominent place in the scale of civilization, we cannot but feel that it is their excellence in Science and Art which has greatly contributed to make them what they are. There was a time when India held a high place among the nations of the world, and her arts and manufactures were considerably admired. Subsequently amidst the vicissitudes which the Aryan civilization passed through, the decline of her industrial arts was a necessary result of the decay brought on by time. A resuscitation and improvement of India's dying industries, and the full development of her abundant resources is a consummation which is looked forward to by every patriotic native of India, under the benign sway of Her Most Gracious Majesty the Queen-Empress; and as a means to this much desired end, it is of the utmost importance to foster a taste for technical education. We have, I think, enough of mere clerks and accountants. I can say from my experience that a petty vacancy in a Public office stirs up a great number of applicants ; but when you want a superior artizan or other professional man, you have to wait for some time before you find one who fully meets with your approval. This, then, is a want, which while giving every possible encouragement to primary education, has also to be supplied by establishing Schools of Art and Industries in different parts of the country, and enabling promising youths to proceed to advanced foreign countries, and be trained in some useful arts and manufactures. This question is so intimately connected with the regeneration of India that it has deservedly attracted the attention of the thinking portion of the Indian Public and the enlightened British Statesmen of the day. The example set by Japan in annually sending out youths to Europe and America to be trained in the useful arts and manufactures of the West, no doubt, deserves imitation. When the vast extent of India is considered, the industrial and Art schools hitherto established appear to be a mere drop in the ocean ; and their extension is admitted on all hands to be a pressing necessity."

M. J.

supervisors of workmen and employers of labour. There is no connecting bond of trained intelligence among the classes interested in skilled Industry, no elementary training of workmen in sympathetic alliance with the superior technical knowledge of the directors of work, such as had long existed in many small continental States. Our science is not wedded to manipulative skill. Now as experience has shown that the nation which most vigorously promotes the intellectual development of its industrial population takes the lead of nations which disregard it. This is a matter which will not bear neglect. Palæography, epigraphy and the like are luxuries, but the enlightened employment of the forces and products of nature is a vital need. India has entered into competition with other nations in the market of the world, and competition in the world's market is very keen. The hold of Indian produce on foreign markets is somewhat critical and precarious. India cannot afford to despise any reduction of cost price or improvement in quality which can be made by the substitution of scientific for rough processes and manipulation. Nor should India continue to buy at a great price in silver any commodity which an increase of industrial capacity may enable her people to produce well and cheaply for themselves. Again, there is the growth of population liberated in a great measure from the checks of war and famine. We have districts in which a margin of only 5 or 6 per cent. of land is left available for the extension of tillage. Either the land must soon produce more under higher cultivation, or other means of industrial livelihood must be opened out. Undoubtedly there are great difficulties. Industries have to be created, others rehabilitated rather than merely improved by science. An indebted peasant proprietary is not the most capable of utilizing the steam plough or the chemical factory. Yet we see around us signs of a renascence of manufactures. Our mill-industry, though now struggling with difficulties, has promise of a great history. Indian silks, muslins, gold and silver brocade, carved work, dyes—all old Indian products—are in evidence in the international exhibitions, and where manufactures touch the province of the Fine Arts, we have the old forms and traditions, which, if now productive in a somewhat mechanical way, are still among us as suggestive guides to excellence. It may be said that to organize technical education is the duty of the Government which provides such educational means and appliances as

seem suited to the needs of those whom it rules rather than of the University which confers degrees for proficiency in the use of those means. This must be frankly admitted. The Government must lead the way, and I had it in view, when indicating technical education as in my opinion that object to which public expenditure in this department may now be directed with the greatest benefit to the Indian people. Examples in this matter may best be sought on the Continent of Europe. Twice in the last twenty years, the English Government has turned for instruction to those examples. In 1867, there was reason to fear that England, though possessed of great advantages in raw material, was being rivalled and surpassed in its own specialities by nations which had developed their manufacturing skill by well-organized technical education. Exhibitions and Royal Commissions revealed the fact that France, Belgium, Germany, Austria, and Switzerland were counter-balancing the initial advantages of England by the scientific education of masters and foremen, and the industrial training of workmen. The Report of the Commission of 1884, full of most interesting information as to the comparative progress of industrial teaching on the Continent and in England, shows how much has been done in both under stress of keenest competition and what remains to be done in England. Even now it is confessed that the advocacy of technical teaching as an extended and systematic education up to and including the methods of original research has not entirely prevailed. But it must be remembered that even with defects of organization, England is rich in the great names of scientific discovery and invention, that national poverty is not the difficulty in England, and that the English workman is second to none in natural energy, intelligence and inventiveness. In our Indian Empire I need not say that the difficulties are incomparably greater, and their very outworks have still to be attacked. Where taxation is not cheerfully borne, where the workman is apathetic under the superstition of custom, and content with a bare subsistence, where the reach of elementary education is small, where the upper classes are indifferent or inadequately appreciate the needs of their country, a too ambitious scheme put forward by the Government on a European model would certainly be deemed to failure. But it is profitable to observe by what efforts and sacrifices the success of European nations in industrial progress have been purchased. Both Govern-

ments and peoples are animated by the conviction that the prosperity of their industries depends on the cheapness and attractiveness of their products, and these on the high perfection of manual skill combined with artistic culture. Thus, while the State undertakes the cost of the highest general and technical instruction, most of the cost of the Secondary and Elementary Instruction, both in science and in art applied to industrial and decorative purposes, is cheerfully borne by the localities. Moreover, elementary education, which everywhere includes instruction in drawing, is in the most European nations compulsory. Both republics and monarchies have accepted the principle that there is a discipline and restraint which a free people may impose on individual freedom for the attainment of a great public object. If an Indian Presidency need not despair of doing, in a measure, what a Swiss Canton or a small German State succeeds in doing completely and excellently, it is time to lay down the lines of action. The admirable system of technical education in the countries of the Continent had its origin only half a century since with the creation of railways and factories. A similar educational development should follow in India on the extension of railways, the expansion of commerce, and the freer interchange of thought. Municipal law has also been advanced so far as this, that the new Local Government Acts impose on local boards and municipalities the obligation to maintain an adequate system of elementary schools which is indispensable basis of technical education. Most remarkable in the history of technical education on the Continent is the great part taken in its support by communes and municipalities. We also must use these agencies. I venture to think that an institution in memory of the man who stirred in so many million hearts the ambition to share in the duties and responsibilities of Local Government should be content with nothing less than a wide-reaching endeavour to guide those impulses to this practical end, stimulating into action the authorities who now control commercial and municipal expenditure, and imparting knowledge and assistance to all centres of population in Western India, by subsidies, by opening artisans' evening classes and model technical schools, by distributing mechanical appliances and objects of art, by promoting museums and art collections. In 1869 when I was Director of Public Instruction, when the law left it quite optional with municipal bodies to support

schools or not, and in fact 1¾ millions of towns-people was contributing less than Rs. 14,000 yearly for school purposes from municipal funds, I made a proposal to Government for imposing by law a school rate on municipal towns, and one of my suggestions was that by aid of this rate each town of higher class should support an industrial college or school of instruction in science and art. I said :—"The object would be twofold : first, to teach practically the common trades and turn out skilled masons, carpenters and smiths ; and secondly, to teach theoretically and practically the application of science to the work of the builder and mechanician, and to the higher industries with a view to the production of articles of luxury and export ; skill being here expanded on products special to the country, or for manufacturing which there are special local facilities." I proposed that there should be workshops and schools of science and art teaching, and continued :—"For teachers in these schools I look to the Poona College for graduates in Civil Engineering and to the Central School of Art in Bombay for certificated teachers of art. I am afraid some of this may appear Utopian. But a beginning must be made in the restoration of Indian industries. In 1862 Mr. Laing said :—"With cheap raw material, cheap labour and many classes of the native population, patient, ingenious, and endowed with a fine touch and delicate organization, I see no reason why the interchange between India and Europe should be confined to agricultural produce against manufactures, and why in course of time manufactures of certain descriptions where India has a natural advantage, should not enter largely into her staple exports." I am afraid my scheme did appear Utopian for nothing was done at that time. But as we have now advanced a little further in the science of municipal government, I hope the project may at last be carried out.

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(21)

UNIVERSITY CONVOCATION—BOMBAY, 1887.

(*Extract from the speech by the Hon'ble Sir Reymond West, I.C.S.*)

Importance of Technical Education.

Technical Education is that on which a great deal of the future development of this country depends. It is one of the most striking phenomena of the day, the swift advance of the European countries in applying the resources of science to the advancement of

technical education; and we cannot any more than England afford to be left behind in the competition and race for progress in this line. The Government must do what it can to support technical education; and technical education on its own behalf, even if there were no competition and no stress of necessity, has great and paramount claims to the support of the Government and the community itself. It is through technical education that the riches of the world are brought to our feet, that the weak are made strong, and the poor rich, and that the fainting soul receives the lightening-like communication that gives its peace. All these things are owing to the application of science in our day, and who shall therefore say that it does not deserve the recognition and support of the enlightened men of the community? The Government in supporting it deserves our sympathy, and if sacrifices must be made for it in some directions, we must be reasonable and enlightened enough to see that the Government itself is in a strait, and submit to the necessity in the hope that better times will come. This subject of technical education has hitherto been, I must say, somewhat lamely handled as far as one can gather from what has appeared in public by the Government. It seems almost sometimes as if they had called up a Frankenstein, and were afraid to look the subject in the face, and as if they were hesitating with the "blank misgivings of creatures moving about in worlds half realized." So much has been talked and so little has been done in this great and important sphere of activity! But I hope that ere long something like a practical beginning will be made, and that then step by step we shall rise through those middle principles on which Bacon has dilated as being so important in connection with the progress from the lower to a higher, that by degrees we shall introduce technical schools to advance our humbler students to a perfect grasp of what they now but faintly appreciate, and also that the masters and managers of factories and agriculture on the larger scale will be furnished with that higher technical education which is so essential, and which comes into close communication with the abstract physical sciences.

Government's indifferences to technical Education.

(22)

UNIVERSITY CONVOCATION—BOMBAY, 1889.

(*Extract from the speech by His Excellency Lord Reay, LL.D., G.C.I.E.*)

"In the Faculty of Arts greater attention must be paid to the study of History and to the study of the Vernaculars. . . . I shall not enter into the controversy about the Vernaculars. To say that higher education has no concern with the spoken languages of the country, that they have nothing from which a student can derive advantage is a proposition which seems to be essentially unacademic, neither can it be regarded favourably from the utilitarian point of view. Colonel Lee's proposal, accepted by Sir Alfred Lyall, of an Oriental Faculty as well as an English Faculty of Arts, giving freedom to graduates in either, is one which, I believe, to be practicable and desirable."

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(23)

THE "BOMBAY GAZETTE," 22ND NOVEMBER 1884.

Communication by Y. N. Ranade, Esq., dated Poona, November 20th, to the Editor of the *Bombay Gazette*.

"As regards the medium of instruction, Mr. Kunte and the Hon'ble Mr. Telang are of one opinion. They hold that the Vernaculars should be made the media of instructions. The course which Mr. Telang recommends is well calculated to secure success for the experiment, and consideration at the hands of the proper authorities. Let some private school initiate the reform, and if it bears good fruit, there will be no serious objection to its introduction in all other schools."

Opinion of the Hon'ble Mr. Justice K. T. Telang, M.A., LL.B., C.I.E., expressed in his letter to the Hon'ble Justice Rao Bahadur M. G. Ranade, M.A., LL.B., C.I.E.

"I forget now whether it is your suggestion that our system of Education should be so altered as to make our Vernaculars the media of instructions for a much larger portion of our course of studies than they are at present. I entirely accept that suggestion. When the Education Commission was preparing

its Report, I mentioned this matter to some of my colleagues, but I found that the opinions of our own countrymen in the various Presidencies were not such as to satisfy the Commission in making a recommendation respecting it. Therefore I contented myself by securing a place in the Report to the suggestion that should a school choose to adopt the Vernacular as a medium of instruction, it ought not to be refused aid on that ground. If some private school makes the beginning in this matter, I am quite confident that it will be able to show very good results, and it may thus become instrumental in securing to the system a respectful consideration even by the Government. If the system is adopted, I think the Vernaculars will come nearer to their proper position in our course of studies, and I am sure that the students themselves will find their knowledge becoming more real and more easily accessible than if the medium itself is a foreign language. When I was in Calcutta, I endeavoured to rearrange even our present Anglo-Vernacular standards so as to suit this change. And without going through the whole work from beginning to end, I saw quite enough and did quite enough to convince me that such a re-arrangement, though it will require to be carefully thought out, will not present any really serious difficulty.

. . .

I have shown this letter to Mr. B. M. Wagle, and he generally agrees in the views here put forward."

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(24)

TECHNICAL EDUCATION.

No. 3 E. OF 1886.

EDUCATIONAL DEPARTMENT,
BOMBAY CASTLE, 15*th September* 1886.

RESOLUTION OF GOVERNMENT.

Government have for some time had under consideration the important subject of Technical Education in this Presidency. The practical questions that require to be considered appear to be such as the following :—

What are the classes which most require technical education, and are best fitted to receive it? What are the Teaching Agencies now

at the disposal of Government, and how can they best be strengthened and developed so as to satisfy existing needs? What new Agencies should be called into existence for the purposes either of teaching, examination, or control?

2. Before proceeding to consider these practical points, it will be well to state briefly the views of Government on the general question.

Technical Education cannot be better defined than it was by Mr. Scott Russell :—"It is necessary that each individual shall in his own special profession, trade, or calling, know more thoroughly its fundamental principles, wield more adroitly its special weapons, be able to apply more skilfully its refined artifices, and to achieve more quickly and economically the aims of his life, whether it be commerce, manufactures, public works, Agriculture, navigation, architecture." Technical education aims at teaching the application of the principles of science and art to obtain certain results. Technical education is therefore entirely dependent on the previous acquisition of those principles. It is not a substitute for a good general education but an adjunct, and in its highest development it would even go beyond the University. In a certain sense a Technological Institute presupposes the acquisition of the B. Sc. Degree.

In the Report of the Royal Commission of 1884, there is now available the fullest information regarding the history of the movement in Europe, and regarding the Institutions which have there been found most effective. But in dealing with this information it must be borne in mind that the existing circumstances in Europe, and the objects there aimed at, are widely different from those in India. Thus in England there is an enormous wealth of manufactures, workshops and unorganized Technical Instruction already in existence, and the question is how to organize, economize and improve it so as to meet the rivalry of the continent. The circumstances of India, it is obvious, are very unlike those of England. India is essentially an agricultural country, the agriculturists being hitherto in this Presidency for the most part small peasant-holders with little or no capital at their disposal; and under these circumstances it is not surprising that the scientific and manufacturing developments of the community are backward. It thus happens that

except in Bombay, where certain industries are considerably developed, the experience obtained from Europe is not altogether applicable to this Presidency. At the outset it must be accepted that technical education cannot create manufactures; it forms merely the adjunct of good general education for the supply of skilled labour to the demand of capital which is an indispensable factor, and of the enterprising spirit which does not show incurring the risk which attends such investments of capital. Technical schools create a directive power but the power must find at hand a sphere in which it is to be exercised. They aim also at counteracting the defects due to the specialisation of work which division of labour practically necessitates. The artificer cannot miss the larger grasp which theoretic knowledge must give a man who has acquired a mastery over a single detail of his craft. Technical education followed in Europe the existence of trades or crafts. In India there are a number of languishing crafts highly artistic in their nature, distinguished by a high degree of excellence in the disposition of form and colour and with a well marked individuality peculiar to the country. The first desideratum for reviving them is capital.

The prudent way of proceeding seems to be, by careful enquiry through local committees, to ascertain local and special wants, and to provide for these wants practically as they arise. This can best be done by developing the scientific element in existing institutions; and by encouraging the establishment of new aided institutions which will be thoroughly in harmony with Indian Society as it now exists, which will keep touch with native managers, foremen and artisans of all kinds as they are; improving them gradually, increasing their number, and developing their ingenuity and their taste. And in providing the organisation and equipment of such new Instisutions care must be taken to distinguish between two kinds of technical schools according as the object is (*a*) disciplinary or (*b*) professional. In the first the main principles are taught and tools common to several or all Industries are merely utilised to illustrate what is taught; and the object in view is to give the pupil such preliminary training as shall enable him, when he afterwards selects his occupation and enters the workshop, to make much faster and more intelligent progress than he otherwise could have done. In the second the object is to teach one particular art or industry with such complete-

ness that the pupil will be able, at the end of his training, to begin to practise it for a livelihood.

3. With these preliminary remarks the consideration of the practical questions stated at the commencement may be resumed. And with reference to the classes requiring technical education, the subject may be roughly divided into 3 branches, according as the teaching relates to (1) agriculture, (2) art industries, and (3) mechanical industries.

4. Taking these in their order, it may be at once decided that the College of Science at Poona shall be the central institution for the teaching of higher agriculture, local classes and schools being established to serve as feeders to the College. The College of Science already possesses an Experimental Farm, workshops with machinery, the apparatus for physical and chemical instruction, geological and botanical museums (to the latter a small botanical garden is attached), and a drawing school. And any further requirements should be granted which Dr. Cooke may show to be necessary in order to render the course of instruction in agriculture thoroughly efficient. The University has already given some encouragement to agriculture, and it is hoped that in due time Degrees in Agriculture may be granted which have recently been instituted by the University of Edinburgh. As regards the teaching which is to lead up to the College of Science, a difficulty exists in some districts in inducing the sons of actual cultivators to take advantage of scientific education; but the difficulty is not insurmountable, for in one or two of the Farms attached to the High Schools most of the work has been done by the sons of "Kunbis." The efforts in this direction must be continued and increased in order to make this agricultural teaching both useful and attractive to the sons of actual cultivators. With a view to develop the agricultural side of the High Schools, or of founding purely agricultural schools, Committees of influential Agriculturists and others should be formed by Collectors and Deputy Educational Inspectors, and the matter placed before them in a practical light. Also Government would be prepared to give their aid if local Committees were willing to start agricultural classes as an experiment. The first experiment should be made at Ahmedabad, where a large number of intelligent and prosperous Land-owners are to be found. The above are the main

lines upon which His Excellency in Council is at present prepared to take action ; and the details should be worked out by the Director of Public Instruction in consultation with the Director of Agriculture and the Principal of the College of Science.

5. For the purpose of (2) art teaching, this Presidency already possesses the Sir J. J. School of Art ; and this Institution should also be the centre of Government efforts in this branch of Technical Education. In his Report, No. 4929 of the 20th of November last, the Acting Director of Public Instruction proposed large additions to the cost of the school, including 3 new Professors of wood engraving and lithography, of painting, and of sculpture. He also supported a scheme proposed by Mr. Griffiths in his Memorandum of 17th April 1880, for reviving certain Branches of Indian Art Work. Mr. Griffiths says :—" For the teaching of these subjects (wood-carving, pottery, art metal work, embroidery ,enamelling) which are truly Indian in their treatment, the plan which presents itself to my mind as being the most effectual in resuscitating and fostering the artistic processes which are now on the wane, is to procure the best native workman in his own special Branch, giving him an atelier attached to the School of Art, fitted up in accordance with his special requirements. He should be paid a salary in addition to profits on sale proceeds for teaching a certain number of students who show an aptitude for his special craft. A sum should be allotted to each atelier for stipends and contingent expenses. It should be stipulated that the work produced be intrinsically beautiful both as regards finish and design." Government are not at present in a position to sanction the proposed additional Professorships ; but something may be done at once in the direction of Mr. Griffiths' scheme, which appears to be an excellent and practical method of encouraging indigenous art. Mr. Griffiths should be requested to ascertain in which of the Art Industries above noted teachers can at present be obtained of special fitness for the purpose indicated ; and he should, through the Director of Public Instruction, submit proposals for starting this experiment without delay in one or more of these industries for which all the circumstances seem most favorable. In connection with the School of Art, rules involving a maximum expenditure of Rs. 10,000 per annum have recently been sanctioned for the encouragement of elementary

Drawing. These Rules (published in the *Government Gazette* of the 22nd July last, by Notification No. 1112 of 17th Idem) provide for payment by results in grant-in-aid Schools ; for annual grants to certificated School Masters and pupil-Teachers who teach Drawing in their schools ; and for prizes and certificates to those who produce drawings of the required standard and who pass in all the prescribed subjects. By bringing before the eyes of the people all that is best in painting and sculpture from the lowest decoration to its highest pictorial forms, Government will best promote arts both useful and æsthetic. The downward filtration theory is a true theory as applied to arts and industrial pursuits. The School of Art should fulfil this mission for the Presidency as it has been undertaken for the United Kingdom by South Kensington. Here also the beginning must be unpretentious.

6. There remain (3) the mechanical industries. And with regard to this subject the first question which arises is, whether a Technological Institute should be established? After mature consideration His Excellency in Council has come to the conclusion that the time has not yet come to undertake such an ambitious scheme, even if the condition of the finances admitted of the large expenditure required to pay the staff of Teachers, who in the first instance would have to be invited from Europe. At present the main object for effort must be to make science pure and simple at our Colleges more perfect than it now is. As yet the number of persons of sufficient scientific acquirements to avail themselves of the highest teaching of a Technological Institute is very small ; and it is clear that the most economical as well as the most effective way of giving them this training will be to assist them in attending the highly developed Institutions of this class already existing in Europe. Thus, for example, a Bachelor of Science or a Licentiate of Civil Engineering of the University of Bombay, who already has a fair general though unapplied education in science, might be selected for a stipend with a view to more special instruction. He might first be sent to a Cotton Mill in Bombay to learn thoroughly its processes and necessities ; and he might then go to England or Germany to undergo a full course of instruction in the special technical branches considered essential to a man of his profession. He would there frequent a Technological Institute and visit manufacturing centres, more espe-

cially those where the same manufacturing industries are carried out as in this Presidency. On his return he would be available as a Teacher of Applied Science, and would be valuable as an adviser to the Managers of existing Mills and to those desirous of starting fresh industries. In a similar way some of the Millowners in Bombay might be induced to send to Europe a few of their practised native managers or foremen, after they had been trained here, to study their profession there technically at special schools. Assistance would be given to them by Government in carrying out such a project, from which great and lasting benefit would no doubt accrue to the Mill industry.

7. Putting thus aside for the present the idea of a Technological Institute in this Presidency, the question for immediate consideration is, what instruction should be provided in the city of Bombay with a view to raise the scale of existing industries and prepare the way for other useful developments? It appears to His Excellency in Council that what is required is an Institution located in the district where the Mills are and near the Railway Workshops, and that in this institution instruction should be given in such sciences as are necessary for the practical requirements of the managers and foremen on the one hand, and of the skilled artisans and operatives on the other. The illustrations of the lectures should be derived from processes with which the audience are familiar. The curriculum for boys who attend regularly with a view to become managers and foremen will have to be gradually developed and the methods to be followed in this part of the institution will have to be strictly defined, and the pupils admitted to it should pledge themselves not to leave until they have finished the full course, unless they can show special reasons for abandoning the school. Admission should follow on evidence being given that the boys have enjoyed primary education. Whether the curriculum should be full-time or half-time will depend upon the disposition made by employers of labour. If they are determined not to accept boys under a certain age and to give preference to boys who have attended as full-timers, it will be possible to require a full-time attendance for a brief period and not half-time attendance for a longer period. Among the subjects suitable for instruction would be physics, practical mechanics, chemistry applied to

arts, knowledge and sources of raw materials, nature of tools, dyeing and bleaching, drawing plans and designs, theory of color and beauty, the manipulation of cotton, jute, wool and silk, their processes of manufacture, and the art of finishing the same in woven fabrics, the construction and designs of steam and other engines. These subjects should not all be taught at starting, but they may gradually be introduced. The object of such a school should be to give the students a grasp of scientific facts which they can readily apply to any trade. The reason why subjects should be taken in connection with surrounding industries is to attract pupils to the school and also to make visits to the Mills profitable, and to get from the students teaching power for the artisans' evening classes, to which reference will presently be made. The object should not be lost sight of to make this institution a training school for managers and foremen of other industries as well as of those now in existence. The institution must not lose its disciplinary character or its adaptibility to industries in general. Where special industries require special schools those interested should take steps to organise them with the help of local Committees. The object of this institution will not be to put into the market the article of any industry but the workman fit to be employed in any industry.

8. For the skilled artisans and operatives there would be evening classes suited to their requirements. In order that the teaching may not be above their level it should begin very low, with reading and writing, arithmetic, geometry and drawing, and modelling in clay.

9. Such being the outline of the proposed institution, the next point for consideration has reference to its constitution and management. And on this point His Excellency in Council is clearly of opinion that the balance of advantages is in favor of its being started as an aided institution under the management of a competent and representative Committee or Board. By such an arrangement various difficulties of an administrative kind will be avoided; and the institution will be more elastic, for the native community will be directly connected with the experiment, and it will be easier in an aided institution to make such changes as the course of events may show to be necessary, than if the regulations were framed by Government and required to be revised by the same authority. Accordingly

the Committee of the Ripon Memorial Fund, which has already taken up this subject, should be invited to co-operate in the scheme, and to undertake the establishment of the institution upon the assurance that it will receive from Government aid of a very substantial kind. For this purpose it is suggested that the Committee should form itself into an association for the promotion of technical education in the city of Bombay. This association would be recognised by Government, and would receive from Government the utmost possible aid on the principles enunciated in this Resolution.

10. His Excellency in Council would make it a condition that the Principal of the new institution should in the first instance be an English Technologist, and that Government should be represented on the Committee, which should be made thoroughly representative of all trades, industries and handicrafts in the city. The Managers of the Mills, of the Railway Works, of the Dockyard, and of any other great works, as well as representatives of the smaller industries such as carriage-building, watch-making, engraving, embroidery, toy-making, not to mention jewellers and goldsmiths, should be placed on the Committee, and divided into sub-Commitees for each branch of the institution. Government should be represented by Dr. T. Cooke, Mr. T. B. Kirkham, Mr. M. C. Murzban, Mr. K. D. Naigamwalla, Mr. N. N. Wadia, and by one or more of the science teachers in Bombay.

11. As the first step towards the practical organisation of the institution, Dr. Cooke, who has much knowledge and experience in these matters, should be requested to place himself in communication with the existing Committee, and with their assistance to draw up a preliminary scheme, with courses of lectures in certain subjects, prizes and scholarships for the pupils who pass examinations in the subjects of the lectures, and rules for the selection and remuneration of the lecturers. The existing laboratories, collections, as well as science-teachers in Government and Aided Colleges should be utilized for this purpose. Dr. Cooke should be asked to communicate with the various public bodies and societies in Bombay with a view to obtaining their co-operation and support. The Sassoon Mechanics Institute, the Millowners' Association, the Parel Mechanics Institute, the Students' Literary and Scientific Society, and other similar bodies will probably give assistance in furtherance of their own special

objects. It may be hoped that the Municipality and the Railway Companies will contribute to make this scheme a success, and they should be duly represented on the Bombay Committee. The test of the success of the teaching will be whether the employers of labour appreciate its results, and whether the wage-earning classes avail themselves of these fresh opportunities.

12. It has been suggested that before the institution is formally opened an Industrial Exhibition should be held under the patronage of Government, when it is thought that the greater portion of the machinists and furnishers who supply the various mills and factories might be induced to send machines and other articles to the Exhibition with a view to eventually presenting the same to the institute. If the Principal is engaged at an early stage he could with his staff conduct the important work of managing the Exhibition, and this would give him time and opportunity to gain information and knowledge of the people, so that he would be in a better position to arrange his classes and select his pupils. This idea appears to be deserving of consideration.

13. In this new departure, examinations will occupy a secondary position, because examinations are considered a corrollary of good education but no sure test of it. The success of the scheme will depend on good teaching rather than on multiplicity of examinations. They will be a sequel to the education provided and not overrule it.

14. As regards the wants of the Moffusil in respect of industrial training, the main dependence must be upon the High Schools for elementary science and upon such institutions as local efforts may start with the aid of Government. The Aided Colleges at Ahmedabad and at Karachi will in some respects be able to give powerful assistance to any movement which may contemplate a more widespread scientific education than these Colleges are intended to give. His Excellency in Council trusts that the opportunity which is given by the organisation of these Colleges and the new Madresseh established by the National Mahomedan Association at Karachi, to assist the development of technical education, will not be lost, and in the selection of a Principal for the Sindh College and eventually for the Ahmedabad College, the selection should be made of a teacher capable of dealing with this problem. There will be Boards of Management

for these institutions and the Government representatives on them will be instructed to carry out as far as possible the views of Government as stated here. Places which as yet have no High School, such as Hubli, favourably situated for an independent technical school, might with advantage make a fresh departure and start an institution complete in itself and besides preparatory for the College of Science or the School of Art. All Government High Schools have for some years past been supplied with scientific apparatus for the teaching of elementary physics and chemistry to the senior pupils. His Excellency in Council is of opinion that this instruction has been useful so far as it extended, but that the time has now arrived for a thorough re-organization of the science instruction in High Schools with a view to secure the following objects :— (*a*) to make it both more thorough and more practical, (*b*) to secure a nucleus of real scientific work, sound as far as it goes in every High School, so as to discover the boys who have a special aptitude in that direction and pass them on to the science and Art Colleges. These objects Government consider can best be attained by the appointment of a competent instructor in science to the staff of every High School, by the allotment of a certain number of scholarships, the minimum being two, for proficiency in natural science, and by making it the duty of the science-teacher to instruct the scholarship-holders and other pupils specially studying science, in the practical Manipulation of the apparatus. The Director of Public Instruction should draw up rules to give effect to these principles, and the Educational Inspectors should be instructed, in reporting on High Schools, to devote a special paragraph in their reports to the state of the science instruction, the proficiency of the senior scholars and senior pupils studying science, and to the condition of the scientific apparatus. His Excellency in Council is also desirous that the scientific apparatus, which has been supplied at public cost, should under suitable conditions be made available for public instruction by means of popular lectures. The Director of Public Instruction should make arrangements for the offer of *honoraria* to competent science-lecturers, whether teachers in Government service or otherwise, who are prepared with courses of lectures on scientific and agricultural subjects, and especially on such as have a practical bearing upon any art or industry carried on in the particular neighbourhood. The lecture-room and apparatus of the

High School and the assistance of the science-teacher of the High School should be placed at the disposal of the lecturer. A syllabus of the proposed course of lectures should in all cases be submitted for the previous approval of the Director of Public Instruction.

15. With regard to the subject of Drawing in High Schools the recent rules already referred to should be followed as far as they are applicable, but in addition His Excellency in Council directs that in every High School the Teacher of Drawing shall hold one class either in the morning or the evening, out of ordinary school-hours for the instruction of persons already engaged in arts or manufactures who may wish to improve themselves in drawing. In the absence of trial it is difficult to say what response may be expected on the part of the native artisan class, and Government would therefore wish that in the first instance the instruction to this class should be offered gratuitously. School-masters and teachers in adjacent schools should also be admitted to this class with a view that they may qualify themselves for teaching elementary drawing in their schools.

16. By means of these measures it is hoped that, without a formal bifurcation of studies in the High School the modern side which has been prominent in this Presidency will be still further developed, so that all the advantages of bifurcation will be obtained without the attendant inconveniences and expense.

17. In primary education by selection of books referring to natural objects, to facts and principles of agriculture, by object lessons, by elementary wood-work and card-board designs the pupils should have their constructive faculties developed. At the Training Colleges this factor of elementary teaching should be, as well as drawing, carefully kept in view by the Educational Department.

18. The subject of special industrial schools is not one which the Government are called upon to undertake. It is one for consideration of localities and trades. Their object is the improvement of the manipulative skill already existing by holding up for imitation and by encouraging a higher style of finish. Such schools would be of the greatest use to the sons of those handicraftmen who carry on hereditarily special branches of manufacture. The co-operation of these guilds should be secured before starting such schools. At present there are two large schools of industry at Ratnagiri and

Surat, besides one or two smaller ones elsewhere, which are working fairly well. There is also a Missionary Industrial School at Sirur, and another at Poona. These institutions afford instances of what can be done by local effort. When schools of this kind are regularly recognized as an important agency for professional as opposed to disciplinary technical training, it is hoped that native benefactors will provide funds to establish additional ones in other towns. The nature and scope of such schools should be fully explained to the public, and Municipalities and Local Boards should be encouraged to maintain them in accordance with the needs of local industries. Government aid will be granted, as far as possible, to this useful work. Ahmedabad might well be among the first places to distinguish itself in this direction. And in Poona metal-workers and silk weavers might be taught at special institutions started by the Municipality or by local bodies. It appears to His Excellency in Council that local self-government affords the best means for local development of existing, and the revival of extinct or languishing, industries.

19. In the new departure now being made in the matter of technical education, it is most important that Government should be in possession of detailed information regarding the methods followed in England; and with this view the Secretary of State has been asked to allow Mr. T. B. Kirkham, Educational Inspector, C. D., who is now on three months' privilege leave, to remain on duty in England for three weeks after the expiry of the leave, for the purpose of making inquiries on the subject.

20. In concluding this brief review of the position as regards technical education, His Excellency in Council desires to express his satisfaction at the strong and healthy interest which has been taken in the subject by the public, as shown in the Press, as well as in the valuable suggestions brought forward by individuals who have made a study of the question. It is universally felt that new channels should be opened not to repress the intelligence of the country, so largely developed by means of the education imparted during the last 30 years, but to dissuade it from overstocking one field by providing other appropriate ground. Various gradations of technical education forming ends in themselves for various classes of the community must all tend to develop the material resources of the country, and to improve the general condition of the people. The public no doubt

realize that financial pressure obliges the Government to be most careful in what they do, and that otherwise they would have been glad to extend the basis of operations as regards technical education. Being thus restricted financially His Excellency in Council would earnestly appeal to all local authorities and associations as well as to the influential and wealthy classes to come forward and co-operate heartily with Government in their efforts to enter the arena which several European countries have entered not so long ago achieving signal success in a very short time, countries which cannot be called rich but which realised the conditions imposed upon them by the keen competition which threatened their prosperity. His Excellency in Council wishes to make a cautious and small beginning; to establish a basis out of which gradually a more complete fabric may be developed by the process of natural evolution; to utilise existing resources; to labour in a few and selected fields; to work out the scheme almost entirely through native agency; to improve such native agency by giving them opportunities of completing their education in Europe and of witnessing the industrial, agricultural, mechanical, artistic and mercantile development of the western world. The scheme is not academic, does not include legal and medical education because it is not intended for the academic but for the producing classes. Its success cannot be tested by examinations, but rather by exhibitions and by statistics of imports and exports, prices, and wages. Its main object is to enhance the well-being of the people at large by giving increased employment in the Presidency to labour and capital, and by cementing the harmonious relations which should exist between both.

(Sd.) W. WEDDERBURN,
Acting Chief Secretary to Government.

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Extract from the speech of His Excellency Lord Reay, Governor of Bombay, at the opening ceremony of the Victoria Jubilee Technical Institute, Bombay. Report from commencement to the 10th April 1889.

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In India the difficulties are greater than in England, because we have to face this very great obstacle that we cannot give you the instruction you require for the workshops, which you will hereafter

enter, in your own language. We are obliged—because there is no vernacular technical literature, to teach the scientific subjects in English. This is a very great difficulty, and one, I hope, Sir Dinshaw will live to see overcome, and perhaps some day Mr. Phythian will give his lectures in Marathi.

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ELPHINSTONE COLLEGE UNION LECTURES, 1891-92.

LECTURE ON VERNACULAR LITERATURE,

BY W. E. HART, ESQ., B.A., LATE CHIEF JUDGE, COURT OF SMALL CAUSES, BOMBAY.

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"You, natives of India, and members of a Literary Society in an Indian University, represent the pick of Indian literary culture. In your hands is of necessity reposed the trust of guarding the growth and determining the history of native Indian literature—if it is to have one. You, who enjoy the benefits of the highest education that India can give her sons, as you pluck its fruit from the Tree of Knowledge, you must bear always in mind that you have no right to devour the feast in silence and alone. It is your duty—nay, why do I call it a duty—it is your privilege, and your right, to bid your less fortunate brethren to the banquet, and help them freely to share in what has been freely bestowed on you. But how can you impart to the unlearned mass of your countrymen the results of the learning you have gained, save through the medium of a common tongue? You best, if not you alone, can do this, and in proportion as you produce original works for the enlightenment of the people in the people's tongue, you create a literature native to the land that gave you birth. Therefore, I say the subject is one of special interest to my present audience, and I say it is one of special interest at the time, and in this place.

For you know that there are now not a few among the most learned and most respected of the Elphinstonian graduates, who have made it their business to press for a reform in the scheme of higher education that shall admit the vernacular languages to a place in the University curriculum. So far their efforts have been met with one fatal objection, that there is not in the vernacular languages of India

a literature sufficient, either in quantity or quality, to afford material for a high class education such as an University should give, and without works of this standard as a medium of tuition, higher education in the Indian vernacular languages is impossible. Some of the objectors go so far as to say that the production of literary work of the necessary class for this purpose in the Indian vernacular languages is impossible, because they are already archaic in relation to the highest thought of the day, and incapable of giving expression to the refinements of modern culture (1). Now, therefore, is the time when the want has made itself felt of such works in the Indian vernacular languages, as are worthy to be called a literature and where if not here, in the Hall of the Elphinstone College, and at the call of old Elphinstonians in their need, can we expect to find men fit to supply that want?

Let ours be the task to-day to see what conditions are necessary for the growth of a vernacular literature as I have defined it. Then shall we be able to judge how far one is possible for India, and to what extent and in what way the reproach may be taken from her of sitting dumb among the nations of the earth, while her sons learn all that is best and worth knowing from foreign teachers in a foreign tongue. To this end I think it would be useful to consider the literary

(1) "The talk about the utter incapacity of our Vernacular languages to serve such a purpose (being the vehicle of conveying knowledge of European learning) is a baseless assertion made by those who have never seriously tried to cloth Western ideas in Eastern language. However it is quite true that although much of Western thought is now in so many ways being expressed in more than one of our Vernacular Languages, there are no proper text-books in these languages bearing on all the different subjects of modern European learning. The difficulty of getting these text-books produced is not at all insuperable; with the encouragement and the direction that the University can so well give to the production of all the required new works in our Vernacular Languages, the difficulty arising from the absence of suitable text-books on any subject will be a thing of the past positively in less than ten years."—M. Rangacharya, Esq., M.A., Kumbokonum. Memo. on the proposed addition of an Oriental Faculty to the Madras University. The *Hindu* of Madras, 29th March 1898.

"The Indian Vernacular Languages are spoken by millions and are by no means in a primitive state. They have a literature rich, though of one-sided development, and as is shown by the Bengali language, are capable of a good deal of elasticity and adaptation."—The *Hindu* of Madras, 15th July 1898.

M. J.

history of a country that has a vernacular literature of its own. For if it be true that what hath been shall be, and what men have done men yet may do, we shall thus be able to argue from cause to effect and see what results we may expect from influences now at work. The history which I propose to take for this purpose is that of England. Not only because her literature as a whole, is one of the most excellent the world has ever seen, nor only because that literature is the one with which I suppose the majority of my audience are most familiar. But also, and chiefly because the history of England, in many of those particulars that must have influenced the development of her language and literature, is in striking accord with that of India.

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I do not propose to consider further in detail the history of the development of the English language and literature, for we have reached now the point where that language is settled and that literature has begun. For within three centuries of that time, the language was much the same as I am speaking now, and the works of Shakespeare, Bacon and Milton had been given to the world. This is the point then, where I think may usefully be instituted the comparison I proposed at the outset between India and England. You must have been struck with several points of similarity. In both we have a like congeries of pretty principalities with different languages, in which we can detect the first rudiments of literary composition. In both we have the gradual absorption of these into a few leading nationalities, whence originate a prevalent form of speech. In both we have the development of learning and accretions to the indigenous speech, due to the education imparted by a foreign race of greater culture. In both we have much the same vicissitudes of foreign conquest and foreign rule.

So far as these are concerned then, India would not appear to labour under any special disadvantage, that makes impossible, in her case, the existence of a vernacular literature, that has been proved to be a possibility in England. . . .

Page 48.

You possess the traditions of a glorious past in a classical antiquity, such as England never had. You have all the learning of the present

brought to your very doors, and you are masters of the people's speech. In your hands, then, you hold the destinies of that speech, and it is for you to say whether it shall be attuned to thoughts divine in noble words, or remain for ever unable to give expression to anything much more subtle than an old wife's fable or inspiring than a maraudar's ballad, while you set apart from your fellows, rich perhaps in the knowledge which you owe to strangers, but passing poor in the contentment born of the thought of duty done to your brethren and to the land whose sons you are.

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(27)

LECTURES IN CONNECTION WITH THE WILSON COLLEGE LITERARY SOCIETY—SEASON OF 1895.

THE RELATION OF THE UNIVERSITY TO THE VERNACULARS.

BY THE REV. DR. MACKICHAN, M.A., D.D.

(EXTRACTS.)

"The Vernacular should obtain a larger recognition in the school system. It is especially in the interest of its recognition in the school curriculum that some have been pleading its cause before the University; but they have been pleading in the wrong quarter. What we want is school reform, not University reform in regard to this matter. No one goes to a University to learn to use his vernacular with correctness. In other countries, in which of course the vernacular is the medium of instruction, the vernacular has a place in the University only as a subject of philological, historical, or critical study. It is not thought with any view to its practical use. That is supposed to have been attended to in the earlier stages of a student's career. But in India where a foreign tongue becomes so early the medium of instruction, there is a near danger, a danger both to the vernacular and to the instruction. Mr. Modak complains that the exclusive recognition of the classics has driven the vernacular out of the high school curriculum altogether. This is a tendency which, according to my opportunities, I have steadfastly endeavoured to resist, but the testimony of the late Principal of the Elphinstone High School is convincing as to the actual facts of the case in many high schools. This is a great misfortune, for it is not to be supposed that the

amount of knowledge of the vernacular, which a boy can acquire up to the time of his passing the IV Vernacular standard, supplemented by what he can gather during the succeeding few years in which the mind is overshadowed by the difficulties of the English language, can furnish a real foundation for culture and literary usefulness in the vernacular. Further, the study of a variety of subjects through a very imperfectly understood foreign tongue is bound to be a slow, a laborious, a bewildering process. If the vernacular is really to enter into the education of the country, either much higher standard of vernacular instruction ought to be insisted upon as a preliminary qualification for entrance into our high schools or at least the vernacular must be more largely employed in the imparting of instruction in our high schools. I have seen, for example, a boy who has completed a high vernacular education before entering upon the study of English simply walk through the higher standards of the high school two in a year, and matriculate in the front rank at the University Examination. I do not think that as a rule it would be desirable to defer the study of English to so late a point, but there can be no doubt that its use, as a medium of instruction, should be deferred in regard to several subjects, and that it is this early use of English as a medium of school study that is driving out or corrupting the vernaculars. It is here that the stand must be made, and I would earnestly call the besiegers of our University to this point of attack, which is of fundamental significance for the whole plan of campaign. Why should it be the case that very few educated young men can speak with authority on any point, *e.g.*, of vernacular grammar or idiom and leave all this to Shastris and Pandits? No young man in Europe would be considered to have received a thorough school education unless he had learned to avoid grammatical and synthetical errors, and had some taste for the niceties of the idioms of his mother-tongue. This is not the rule in India, and it is scarcely to be expected under the existing system. (3.) Thirdly, we require some means of bringing the educated classes into contact with the less educated. This as I have already indicated is a necessary condition of the growth of a popular literature, and it is to be brought about not by any mere regulation. There must be an impulse from within, a genuine sympathy with the masses of the people, and a desire to share with them a common benefit. A mere display of our *Panditya* among them is

worse than useless; but earnest self-denying effort will have its true reward. If self-sacrifice can be evoked amongst University graduates in so conspicuous a degree as we see in Poona on behalf of English University education, surely the same spirit will not be wanting when opportunity is found in the still more important work of bringing the fruits of that education into contact with the life of the multitudes. There are Societies in our cities which place such praiseworthy aims before them, that it is, perhaps, in the centres where such efforts are most needed that they are wanting. The great movement in Britain familiar to you as the University Extension Movement is one from which some lessons may be gathered of interest to our present topic. This movement has had for its aim the diffusion of University culture in districts where there is no University, or amongst those whose occupations or circumstances render it impossible for them to attend the University. This movement has already accomplished much in this direction and it has already produced in its University Extension Handbooks a vernacular literature of real value. I should like to see similar opportunities given to our graduates to break the bread of knowledge to their less favoured countrymen, and I should like to see a large number of our graduates prepared and willing to undertake this noble task. Educated India has no lack of organizing power. It has organized numerous associations, surely it is capable of organizing this. This would be a true and worthy fulfilment of the hopes expressed in the great Despatch, and under the stimulus of high endeavour the vernaculars would be turned to a noble use, and such use would mean their highest cultivation."

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(28)

PAPER ON PRIMARY EDUCATION.

By the Hon. Mr. CHIMANLAL HARILAL SETALWAD, B.A. LL.B.,
PLEADER (NOW ADVOCATE) HIGH COURT, BOMBAY, 1896.

Page 23.

"India is now drawn into a fierce commercial and industrial competition with the other countries of the world, and if it is to keep its own in that race, we should turn out pupils with a taste and inclination and necessary educational equipment for commercial and indus-

trial pursuits, and not merely applicants for Government service as at present. The primary schools must also lead to technical schools and not only to secondary schools of a purely literary character as they do at present, and for that purpose should provide such instruction as would prepare the children to take full advantage of advanced technical instruction in higher institutions. Unless the primary schools did their duty in this respect, technical schools will be handicapped in their work. The Government of India recognised this when, in accepting the recommendation of the Education Commission that practical subjects, such as elements of natural and physical science and their application to agriculture, health, and industrial arts, be taught in primary schools, they in their Resolution No. 10—3039* of 23rd October, 1884, said:—'Every variety of study should be encouraged which may serve to direct the attention of native youths to industrial and commercial pursuits.' The Bombay Government† made similar proposals, and introduced drawing and agriculture in training colleges with a view to prepare teachers for teaching those subjects in primary schools. They have further introduced a rule in the Training College Codes, to the effect that masters, who, after passing in drawing, agriculture, or industrial art in the Training Colleges, teach those subjects in their own schools will receive special grants-in-aid. But no courses in those subjects suited to primary schools appear to have been yet laid down, as is done by the Educational and the Science and Art Departments in England.

The time has now come, when, I think, Government should introduce these subjects in the primary schools and prescribe suitable courses for the guidance of teachers.

The introduction of these subjects will no doubt necessitate a re-distribution of the various subjects, the omission of some, and the making of others optional, detailed suggestions for which are, I think, beyond the pale of this paper.

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* Vide App. p. LXXVII of the Director of Public Instruction's Report for 1884-85.

† Vide Director's Report, 1885-86, App. p. XLVIII, para. 17 of Resolution No. 3E. of 18th September, 1886, and paras. 3 and 29 of Resolution No. 1988 of 29th October, 1885, at the end of the Appendices.

APPENDIX E.

OPINIONS—MADRAS.

(29—37)

Sir W. W. HUNTER'S EDUCATION COMMISSION.

The Madras Provincial Committee's Report.

(Extract from a letter from J. Lee-Warner, Esq., M.C.S., Nellore, dated 8th November 1882.)

Page 213.

The faults which I do find with the present men are—their want of training in their own mother-tongue.

The surface nature of their English education.

It may sound in a measure paradoxical to say so; but I trace both these defects, among other causes, to the absence of sound vernacular curricula. Under the present system, a boy is taken from the cradle to school, where, before he has an idea of his own which he can adequately express in his native language, he is put upon English. Till very recently, classics furnished an almost exclusive field for the mental development of nearly all English boys of the upper and upper middle classes, but no head master of any public school ever dreamed of undervaluing the importance of his pupils correctly rendering a passage well selected from standard English prose into its Latin or Greek equivalent. Bradley of Marlborough carried this to very high perfection. His pupils well remember how his lectures on prose translation were real exercises of the mind. But what is the practice here? The vernaculars are practically ignored—I do not say that there is not good reason for it, but they *are* ignored—and thus this most important branch of school exercise is lost to the boys; and "paraphrasing" becomes the miserable substitute with which schoolmasters replace translation. Surely, there can be nothing sound in a system of instruction which leaves a boy at the conclusion of its course unable to express accurately either his own, or the thoughts which are given to him, in *his own* language. Yet from the imperfect and slovenly manner in which clerks ordinarily translate, it is clear that they have not been taught to seek and obtain a mastery of the right use of words.

(30)

Sir W. W. HUNTER'S EDUCATION COMMISSION.

The Madras Provincial Committee's Report.

(*Extract from the Communication of the President, Madras Native Association.*)

Page 292.

We do not consider, however, that the efforts of the Educational Department towards the improvement of the vernacular languages of India and "the enrichment of their literatures by translations of European books or by the original compositions of men whose minds have been imbued with the spirit of European advancement," has been attended with the same success as their efforts in other directions. This, however, is not due to any shortcomings on the part of the Educational Department. During the Directorate of Mr. (now Sir) Alexander Arbuthnot, an effort was made to have the subjects in taluk schools taught through the medium of the vernacular languages, but the measure was so unpopular that he had to abandon it. . . . We would recommend that in the taluk schools the teaching should be in the vernacular languages, and the pupils should have practical information imparted to them in those languages. History, Geography, and Arithmetic should be taught in the vernacular. Euclid and Algebra may be dispensed with and mensuration substituted. Elementary treatises on political economy or agriculture might be introduced. The study of English might be made optional and a special fee demanded for it. Great importance should be attached to vernacular composition. There should be an examination of a pretty high standard in these subjects and the passing in it should be a passport to the inferior clerkships in public offices, and should betoken a sound vernacular education. Boys who have not the means to pursue their studies in English to a higher point would be content with vernacular instruction. Those who meant to push up to the higher standards would go to the Zillah schools. It will of course be necessary to arrange the scheme of studies in such a way as to ensure the possession of a sufficient knowledge of English by boys who are drafted from middle class schools into high schools. . . .

(31)

UNIVERSITY CONVOCATION—MADRAS, 1882.

(Extract from the Speech by the Honourable Justice Sir Muthusami Iyer, B.L., K.C.I.E.)

It is incumbent on you all, at such a time, to aid the diffusion of knowledge and the revival of literature which must precede the inauguration of lasting reform in every progressive society. Your duty in this direction consists in paying special attention to the development of the vernacular prose literature, and in infusing into it the elements of modern culture, and in presenting to the public, through the medium of the vernacular, the mechanism and the advantages of a progressive social system as contrasted with an imperfect social structure which confines progress within prescribed limits. In the later stages of the history of the vernacular literature in this country, it was corrupted by a desire for writing verses, and by a preference to a style which the learned alone could understand; and the inevitable result was the partial exclusion of the middle classes from the light and the benefit of such knowledge as existed in the country. It is therefore a source of particular gratification to me to find that, during the last ten years, there have issued from the press about 800 original works and 400 translations besides 3,500 republications of old authors. These figures show something like literary activity, and I would ask you to co-operate with those who are already in the field and add to the number of really original publications and useful translations, and to see that you can gain a step in advance every year in the development and enrichment of the vernacular literature. I would ask you to remember at this very early stage of your career in life that the usefulness to your country of the liberal education you have received consists not in writing bad manuals in English, but in writing good vernacular books on the models furnished by English authors. Whilst on this subject I must allude to a matter which has not hitherto attracted the attention it deserves. The study of Sanscrit and the revival of Sanscrit literature are of importance to you, not simply because Sanscrit is your classical language, but also because it contains the key to the history (1), the

(1) "We are here in the midst of ancient peoples, possessed of civilization, of literature, and of art of their own; and our business is not to try and force them to reject their past, to forget all that is characteristic in their history and their traditions, and to convert themselves into bad imitations of modern Englishmen; but to place without stint, at their disposal, all the riches of Western science and Western culture, that they may blend them in one harmonious union with the Treasures of their own Oriental learning."—Lord Ripon.

philosophy and the principles which lie behind and sustain the outer forms and visible signs of your social and family life. Whatever has hitherto been done towards the revival of Sanscrit learning, has been done principally in Europe, and not in this country. But as you examine the structure of Sanscrit as a language, its capacity for brevity and expansion, the facilities it affords for translating new notions into idioms suited to the country, and the classic modes in which it has been handled by such men as Valmeeki, Kalidas, and Bhava Buti and others, you will cease to ridicule the tradition which speaks of it as the language of the Gods. (2)

(2) "It was superfluous in the present day to offer any observations upon the value and interest of Sanskrit literature. The study constitutes an era in the branch of intellectual inquiry just referred to, and has given an entirely new character to philology. The principles of etymological affinity have been placed upon secure grounds, and the history of languages, and through them the history of man, has received novel and important elucidation. Nor is this the only service which it has rendered to general literature. The history of philology and science is also largely indebted to it; and in the civil and religious codes which it has laid open to our knowledge, and in the mythological and legendary traditions, and the dramatic and heroic poems, which it offers to our curiosity, it presents a series of new, interesting, and instructive pictures of society, in which the features of a highly artificial, but original civilization are singularly blended with the characteristics of primitive manners and archaic institutions. The history of mankind can be but imperfectly appreciated without some acquaintance with the literature of the Hindus."

H. H. Wilson, Esq., M.A., F.R.S. An Introduction to the Grammar of the Sanscrit language for the use of early students. London—1841 Page. VIII, Preface.

"The study of Sanscrit will open before you" (young students about to come out to India in the Civil Service) "larger layers of literature, as yet almost unknown and unexplored, and allow you an insight into strata of thought deeper than any you have known before, and rich in lessons that appeal to the deepest sympathies of the human heart."—Professor Max Müller, *Vide* page 322, Lord Ripon's speeches as Viceroy and Governor General of India.

"The Sanscrit language, of which India is now the seat, is acknowledged to be the base of the languages of the West. It is abundantly developed in the Alodian Greek, the Latin and all the languages south of France, including France itself. It appears again, in another shape, in all the Sclavonic and Teutonic dialects, commencing with Russian, and extending to the Anglo-Saxon. In the East, Sanskrit forms the foundation of all the languages of India, as well as many of those spoken in the Burmese empire, and the East Indian Archipelago."—Lieutenant General John Briggs, F.R.S. India and Europe compared, London 1857. M.J.

(32)

UNIVERSITY CONVOCATION—MADRAS, 1886.

(Extract from the Speech by His Excelleney the Rt. Hon. Mountstuart Elphinstone Grant Duff, C.I.E., F.R.S., 1886.)

My appeal to you is in favour of your devoting yourselves to what is undoubtedly real progress, so far as it goes, not to its hollow counterfeit. But some of you have no turn for taking part in religious or social discussions, or for engaging in any form of active and stirring labour. To such, the first question I would put is this: "Are you satisfied with what you are doing for your own literature? How many of you, whether speaking Tamil, Telugu, Malayalam, Canarese, Tulu, or any other tongue, are doing anything, or seriously proposing to do anything, to add to the literature of those languages, or any of them?" I do not refer to books of information that you may have published in those languages, books merely imparting a little of the knowledge of the West—they are good in their own way—but to books containing something that is at once new and striking, books adding, if it be only by one verse or one paragraph, to the things already existing in the world, which are acknowledged to be beautiful, or to be at once new, and true. Some of you, however, will object: "But who is sufficient for these things? How many are there, who can add even one sentence, worthy to live, to the literature of the world, or one new fact to the sum of human knowledge?" More, I suspect, than is generally believed. Who made your excellent Tamil proverbs? Who found out the virtues of many of your common weeds?

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(33)

UNIVERSITY CONVOCATION—MADRAS, 1892.

(Extract from the Speech by H. B. Grigg, Esq., M.A., C.I.E.)

Now as regards your own Vernaculars. Your duty is not merely to add to your power of understanding the man whose books you read, but if you have a true desire to spread good and useful knowledge among the people, you must also obtain the power which so few of you, I fear, possess of expressing yourselves idiomatically and

vigorously in your own language, and of interpreting through it your new knowledge and your new ideas. I am not one of those who think that much can be done at present in the way of imparting scientific thoughts and facts to the people through the Vernaculars, because I believe you must educate the people first on Western methods through their own Vernaculars before you can rouse sufficient interest in what you have to tell to insure intelligent listeners.

"Charm you never so wisely."

But the number of those whose interest has been roused is increasing, perhaps rapidly, and such as these you must be prepared to address in the vulgar tongue. We may yet see an awakening similar to that which recast the whole social and ideal life of Europe, when the thoughts of men of "light and leading" of the ages past and of the then present were communicated to its people "in their own tongue wherein they were born." No one can feel more strongly than I do that, if the peoples of India, with their numerous Vernaculars, are ever to rise to a nobler life and to greater wealth, the proportion of those who know English must be ten, nay, twenty-fold of what it is, and be equally distributed amongst men and women; but no one more strongly believes that the great mass of people can never be truly regenerated until each Vernacular is made a fitting vehicle for carrying on that knowledge. Only those who have had to do with the translating of little works of a scientific character into one of these Vernaculars can appreciate how difficult the task of interpretation now is. But this interpretation must be done. For it is folly to imagine that the rapidly increasing millions of South India can ever be English speaking (1) or depend mainly on English literature. The growing circulation of Vernacular Journals and Leaflets show how rapidly this demand for something to read is spreading especially among the Tamil population. Gentlemen, to whatever Faculty you may belong, if you would spread abroad some rays from your own lamp of knowledge, do not fail to gain such a command over your Vernacular that what you write may be read and understood.

(1) "It is a chimerical idea to think that English can ever become the current language of our people." Page 28, Essay on the position of the Vernaculars in our Educational system by Waman Abaji Modak, Esq., B. A., Principal, Elphinstone High School, Bombay, 1888.—M. J.

(34)

MADRAS UNIVERSITY CONVOCATION—1898.

(Extract for the Speech of Surgeon Lieut. Col. W. G. King.)

"The bulk of the people are ignorant of any other Literature than their own Vernacular supplies. That this possesses the intrinsic merit of the beauty of language, of which the people have a right to be proud goes without saying; but modern opinion and modern thought find expression necessarily in a Western language. So far as I have been able to ascertain no adequate literature on general subjects has sprung up amongst the people. . . . The most obvious methods of accomplishing reform would seem, therefore, to be the aiding of the education of women, and the diffusion of modern knowledge by means of the Vernaculars."

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(35)

(Extract for the Lecture delivered by J. M. Hensman, Esq., B.A., at Kunbukonam—1887.)

What, then, is the remedy for this state of things? The most effectual of all remedies that occurs to me is one that perhaps many of you will not readily admit. I will mention it, however. It is the relegation of English to its proper place in Indian schools, viz., into the position of a *second* language, instead of its being, as at present, a first language. Let all instruction be imparted and knowledge acquired through the vernacular. Let English be studied as men now study Latin or Sanskrit. There is no impossibility about it. The millions of India are *not* going to give up their vernaculars now or hereafter. The vernacular, therefore, will continue to be the language of the home and the market. If, therefore, the present system goes on, the time will never come when the time and energy of boys and girls will be spared from the painful acquisition of the vocabulary and idioms of a foreign language to the acquisition of facts at first hand. An English, or a French, or a German boy is not merely not harassed by the bristling difficulties of a foreign language at a time of his life when curiosity is strong, when wonder at new sights and objects is fresh and genuine, and when the capacity for pure enjoyment is nearly boundless. He is not merely free to roam and play as his vigorous young nature prompts him to do, and to satisfy his curiosity and wonder in fields and lanes and woods and rivers. He

has a positive advantage over his grievously handicapped brother of the East. He has only to learn to read his mother-tongue, and at once all fairy lore, all tradition, all the adventures of heroes in romance and history lie open before him. Reading is to him the "open sesame" to all treasures of knowledge. How many toilsome years must pass before the literature of knowledge is unfolded to the view of the Hindu boy ! By that time his young spirit lies crushed and broken under the huge burden that is placed over him. He may become a good accountant, a good judge, or a good school-master. But long before all this, he has become what he is called, the "mild Hindu."

I said that the acquisition of all knowledge should be through the vernacular. It is necessary here to say that this ought to, and will be, the ultimate result—a result which will become a fact only when you and I shall have given place to a younger and more fortunate generation. In the meantime, it is the bounden duty of all true sons of India to bear it constantly in mind. A first and feasible step in this direction would be to confine boys to their vernaculars till they are at least fifteen years old. If after their fifteenth year they commence the study of English, I feel assured they will be able to matriculate in four years at most. In many cases three years will suffice. On the present system, a boy matriculates, confessedly, after eight years' study of English ; but really, as every master in Middle and High Schools knows, after nine and ten years of crushing labour—ten years of painful efforts at realising the unrealisable. On the plan that I have indicated above, the prize of a ten years' labour is obtained in three or four years. And then the period that preceded these three or four years has not been a blank. Their physique is not ruined for life by their being forcibly and incessantly changed to books and class-rooms. Their minds have grown strong and vigorous by having had work to do which was within their reach. They have escaped the doom of becoming so many "human polypes, with a brain instead of a stomach," into which the teacher "had to pour as much information as they could hold." They have not grown up in utter ignorance of the religion of their fathers, nor destined to be godless, soulless, money-making machines. Among them will be, and ought to be, many that will take rank with the pioneers of European thought,

invention, and discovery. Now look at this picture and on that, and decide which you would choose for yourselves !

(36)

THE " HINDU "—MADRAS, 5TH MAY 1897.

" The University has, or, at any rate, ought to have, a two-fold object in view in respect of what it does in connection with the Oriental Languages, first, the education of the people, and secondly, the improvement of each and every one of the instruments of education. It will not be doing its duty by the public if it should forget either of these results. Education should never be made the monopoly of the few ; it should be within the reach of the many. And this it will be only if the Vernaculars be improved into adequate vehicles for imparting sound education to the masses. The University is bound to spread the benefits of education to all classes and grades of the nation ; and it is consequently incumbent upon it to take such steps as would enable it to discharge this responsibility in a satisfactory manner. In other words, it should improve the Vernaculars as instruments of a general education, if it would not neglect its duty in relation to the educational needs of the nation as a whole."

(37)

THE " HINDU "—MADRAS, 21ST DECEMBER 1897.

" The masses of the people in India have to be instructed at least in the elements of the Science and knowledge of the West, and this can only be done at present through the medium of the Vernaculars. It is necessary to create a healthy Vernacular Literature suited for the expression of the ideas of the West, especially those of scientific knowledge in order to train the people for the coming industrial and social development. It is absurd to suppose that, for the present at least, this can be done through the medium of the English language ; and if we wait till the entire Indian community speak the English language before we commence the process of educating the masses in the Sciences and ideas of the West, we shall have to wait till doomsday. (1) . . .

It is through the medium of these (Vernacular) languages enriched by English Literature that the masses of the people can be reached and elevated and enlightened."

(1) " He could not persuade himself to believe that the time would ever arrive when the whole population of India would think and speak in English and allow their own mother tongues to die."—The Hon'ble Mr. Justice Subramaniya Iyer, C.I.E.,—Address at an Educational gathering.—*Vide* the *Hindu* of Madras, dated the 22nd September 1898. M. J.

APPENDIX F.

OPINIONS—BENGAL.

(38—39)

SIR W. W. HUNTER'S EDUCATION COMMISSION.

THE BENGAL PROVINCIAL COMMITTEE'S REPORT, Page 16.

The instructions of the Court of Directors with regard to the development of Vernacular schools are stated in paragraph 44 of the Despatch. "We include," says the Court, "these Anglo-Vernacular (Zillah) and Vernacular schools in the same class, because we are unwilling to maintain the broad line of separation which at present exists between schools in which the *media* for imparting instruction differ." The object the Court had in view was, as they had said, to impart European knowledge to the people of India, and not to teach them the English language only. The University of Calcutta also had provided, in Rule 7 of its first regulations for the Entrance Examination, that in geography, history, and mathematics, the answers might be given in any living language. It was expected that under the shadow of this regulation, a class of schools in which English would be taught as a language only, and all other subjects through the Vernacular, would spring up, and thus create such necessities for the preparation of school and other books as would lead to a wider diffusion of European knowledge among the people. Possibly, such expectations would have been fulfilled to a much greater extent than they have yet been, if the rule of the University permitting answers to be given in certain papers in the Vernacular had been allowed to stand to this day. The rule might have brought about the preparation of Vernacular school-books in elementary science; and, from their greater ease in this form to beginners, might have led to the re-introduction into the Entrance course of those subjects which had been removed from it, and have thus brought it nearer to corresponding standards in Europe. No such healthy re-action of the improvement of Vernacular education on English schools took place. The schools in which English was taught as a language only, and all other subjects in the Vernacular, never rose to the status which the Court of Directors seem evidently to have desired. The Calcutta University withdrew the permissive rule it had framed, and in 1861-62 ruled that "all answers in each branch shall be given in English, except when otherwise specified."

. . .

In the Entrance Course, a Translation Paper from English into the Vernacular was substituted for the Second Paper in the second language. Physical Geography and Theoretical Surveying and Mensuration were also added to this examination.

There was thus a recognition on the part of the University of the importance of the Vernacular, and to that extent a return to the direction which, as already noticed, the University had abandoned within two years of its first constitution.

. . .

Page 41.

But though the allotments were amalgamated, the scholarship standards and the school courses which they governed remained all along different. Middle English schools had their own text-books, English was the sole medium of instruction, and, except in the lowest classes, the Vernacular was practically ignored. In 1877, an important change was effected. Middle schools were placed on a Vernacular basis ; all substantive instruction was thenceforward to be imparted in the Vernacular, by means of Vernacular text-books ; and English was to be learnt as a language merely. From this time, therefore, the scholarship courses were amalgamated. Candidates for both classes of scholarships were examined by the same papers ; and every candidate for a Middle English scholarship was required to pass by the full Vernacular standard, in addition to the standard in English. The effect of this change has been to make it an easy matter for a Middle school to pass from one class to another. If it finds it is not strong enough to teach English, it ceases to teach it until more prosperous times come, or a more effective demand arises. If a Vernacular school desires to add an English class, it can do so without any dislocation of its existing establishment, and in a few years it may hope to compete with success at the examination. Every Middle school is allowed to send candidates, without any restriction whatever, to either or both examinations. . . .

The Middle schools of Bengal are the genuine fruits of departmental action, although these, too, like the primary schools, have derived their materials from the indigenous pathsalas. Their course extends from the alphabet to the standard of middle scholarships, which consists of (1) the English language, (2) a Vernacular language, (3) Arithmetic, (4) History and Geography, including Physical

Geography, (5) Euclid (Book I, with deductions) and Mensuration, (6) Sanitary Science, with one of the following subjects—

(*a*) Elements of Natural Philosophy.

(*b*) Elements of Chemistry.

(*c*) Elements of Botany.

The last two subjects have been actually not much taught.

Middle schools are of two kinds, middle English and middle Vernacular. In the former the course includes (1) to (6) of the subjects abovenamed, in the latter it includes (2) to (6), the two courses being in every respect identical, except that a little English, as a language merely, is taught in the former. The distinction between them is now rapidly disappearing, since in both classes alike all substantive instruction is imparted through the medium of the vernacular and a school passes from one to the other without difficulty. A middle school may open an English class and still be reckoned as a Vernacular school, until it has won for itself a different classification by passing pupils by the scholarship standard in English. Again, an English school may find that its English classes are not sufficiently supported ; it therefore drops that subject and passes over to the class of Vernacular schools, until it becomes stronger or better able to pay.

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The middle scholarships are of two different values ; middle English are of Rs. 5 a month, tenable for three years ; middle Vernacular of Rs. 4 a month, tenable for four years. The number of scholarships awarded last year was for middle English schools 122, and for middle Vernacular 221. The Government assignment on this account was Rs. 54,000.

(39)

UNIVERSITY CONVOCATION—CALCUTTA, 1873.

(Speech by the Chancellor His Excellency Lord Northbrook, Viceroy and Governor General of India, 12th March 1873.)

"There is another point to which I would advert for a moment, namely, the great importance of the University in respect to the development of Vernacular literature in India. There was a very interesting report published of the Indian section of the Educational Exhibition of 1870 by Dr. George Smith, one of the members of the Senate of the University. In that report, which was prepared both from his own knowledge and with the advantage of the assistance of Mr. Marshman, who possesses a hereditary interest in the success of the Vernacular literature of India. Dr. Smith shows the progress which has been made to a considerable extent through the action of the University in the vernacular literature of Bengal. I think, however, we ought not to be satisfied with the progress that has been already made, but should wish that the attention of the Senate should continue to be directed to the development of the vernacular literature of Bengal and of other parts of India which are under the influence of the University."

APPENDIX G.

OPINIONS—PANJAB.

(40—45)

SIR W. W. HUNTER'S EDUCATION COMMISSION.

The Punjab Provincial Committee's Report.

Page 14.

The statutes of the Punjab University College, which were annexed to the Notification, were to the following effect :—

I. The special objects of the Punjab University College shall be—

(1.) To promote the diffusion of European Science, as far as possible, through the medium of the vernacular languages of the Punjab, and the improvement and extension of vernacular literature generally.

. . .

The above are the special objects of the Institution ; but at the same time every encouragement will be afforded to the study of the English language and literature ; and in all subjects which cannot be completely taught in the vernacular, the English language will be regarded as the medium of examination and instruction.

. . .

Examinations shall be conducted and instruction conveyed, as far as possible, in and through the vernacular, provided that the study of English shall form one of the most prominent features of the teaching in all the schools or colleges connected with the Institution, and that both teaching and examination which cannot with advantage be carried on in the vernacular, shall be conducted in English.

Page 18.

According to the practice which had hitherto prevailed in the Punjab, Mathematics, Geography, and to some extent History, had been studied first through the medium of the vernacular, and then in English. The Punjab Government, however, desired that the vernacular should be made the medium of instruction to a greater extent than heretofore, and this principle, which was believed to be in accordance with the wishes of most of the influential natives in the Province, had found expression in the statutes of the Punjab University College. Captain Holroyd had pointed out that the policy of encouraging vernacular at the expense of English education was not

popular ; but he believed that it was advantageous, and had trusted to the support of the originators of the Oriental University movement, without which it could not be carried into effect.

. . .

The matter was carefully considered in a Conference of Educational Officers, and it was unanimously agreed that in the upper Department of English schools all subjects should be taught in English, while the vernacular should be retained as the medium of instruction up to the Middle School Examination.

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(41)

"ACT TO ESTABLISH AND INCORPORATE THE UNIVERSITY OF PUNJAB."

Extract from the Preamble of the Act of Incorporation of the Punjab University, No. 19 of 1882.

Preamble.

Whereas an Institution, styled at first the Lahore University College, but subsequently the Punjab University College, was established at Lahore in the year 1869, with the special objects of promoting the diffusion of European science, as far as possible, through the medium of the vernacular languages of the Punjab, improving and extending vernacular literature generally, affording encouragement to the enlightened study of the Eastern classical languages and literature, and associating the learned and influential classes of the Province with the Officers of Government in the promotion and supervision of popular education.

But it was at the same time provided that every encouragement should be afforded to the study of the English language and literature, and that, in all subjects which could not be completely taught in the vernacular, the English language should be regarded as the medium of examination and instruction.

And whereas this Institution was by a Notification, No. 472, dated 8th December 1869, published in the Punjab Government Gazette of the twenty-third day of December 1869, declared to be so established, in part fulfilment of the wishes of a large number of the Chiefs, Nobles, and influential classes of the Punjab, and, it is now expedient, the said Institution having been attended with success, further to fulfil

the wishes of the said Chiefs, Nobles and influential classes, by constituting the said Institution a University for the purpose of ascertaining, by means of examination or otherwise, the persons who have acquired proficiency in different branches of Literature, Science and Art and for the purpose of conferring upon them academical degrees, diplomas, oriental literary titles and licences, and marks of honour."

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(42)

EAST INDIA SELECTION (EDUCATION), 1868.

Note on Education in India,

By A. M. MONTEATH, Esq., 1867.

Page 90.

Opinion of the Hon'ble Sir Donald Macleod, K.C.S.I., C.B., Lieutenant Governor of the Punjab, February 1866.

"It was doubtless hoped by the eminent men, who inaugurated the revised arrangements, that as youths were sent forth from our Collegiate Institutions thoroughly imbued with a taste for the Literature, Science, and Art of other lands, and gifted with superior attainments in these, they would devote themselves to facilitating the path for their fellow-countrymen; and that a vernacular literature of a superior order would thus spring up. But the necessity for creating such a literature does not appear to have been practically kept in view and it is an undoubted fact, that, up to the present time, as regards Urdu and Hindi, the vernacular languages of Upper India, little or no progress has been made towards the attainment of this end. So that your countrymen have as yet no means afforded them of acquiring, in their own languages, some fair portion at least of that knowledge of which such abundant stores exist in the languages of the West.(1)

(1) The higher learning of the West—with its Philosophy, History, and Science—has not filtered down to any appreciable exent into our Eastern soil; and until this soil gets saturated with the essential elements of that learning, Indian education cannot be said to be fully capable of proving an efficient instrument of enlightenment and an active Institute of civilization, working for the benefit of the whole country and all its classes and castes and creeds." M. Rangacharya, Esq., M.A., Kumbokonam—memo on the proposed addition of an Oriental Faculty to the Madras University—*The Hindu of Madras.*—26th March 1898.—M. J.

Nor do I feel at all hopeful that anything like a vigorous, original, or copious vernacular literature will be produced within our generation, unless very special efforts be made for securing this end."

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(43)

Page. 322

Extract from letter No. 7, dated 9th January 1868, *from Captain W. R. M. Holroyd, Officiating Director of Public Institution, Punjab, to the Punjab Government.*

"6. Now, the curriculum of our zillah schools is designed expressly to meet the requirements of the Calcutta University, on the result of whose examinations all prizes and scholarships depend. . . .

7. Wherever the study of English extends, there does the study of vernacular text-books diminish. So that the direct tendency of the present system is, not to encourage the preparation of useful works in the vernacular, but to render useless those which already exist."

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(44)

Page 335.

Extract from Report by E. Wilmot, Esq., Principal, Government College, Delhi, dated 13th December 1867.

9. A Committee shall be appointed in each Province or for each vernacular language, to be called "The Translation Committee." It shall consist of *six* members and a chairman (the Director of Public Instruction, or such substitute as he shall appoint); the six members shall be three European educational (or other) officers, and three natives of distinguished Oriental attainments and general proficiency in Science and European literature. The Committee shall be empowerd to encourage and superintend translations generally, and especially to offer annually eight prizes for public competition; *four* for the best vernacular translations of (1) an approved work on Natural Science, (2) an approved text-book of mathematics, (3) an approved work on Mental or Moral Science or History, and (4) an approved work on political economy or law; and *four* for the best original works on (1) a subject connected with some portion of

natural science, (2) on a mathematical subject, (3) on a subject connected with mental or moral science or history, and (4) on a subject connected with political economy or law. The subjects for translation and for original works, and the amounts of the prizes to be awarded, shall be published in the first four issues of every year's Government Gazette. The essays of the competitors shall be sent in before the first of the succeeding January, anonymously, marked with a motto or sign for the future identification of the competitors. The mottos of the successful essayists shall be published in the Government Gazette of the first week of the next October. The copy right of the manuscript of any translator shall become the property of Government from the date of its sending in, and Government will therefore be at liberty either to publish the translation of a successful competitor in its integrity, or to amend it by selections from the essays of unsuccessful competitors, as shall seem fit to the Committee. The original works also shall be published by Government.

10. The prizes shall be of some considerable value, to be awarded to prize-men as the Committee shall decide; in no case being less than 500 rupees or more than 2,000 rupees.

11. Every Member of the Committee shall be required to adjudge a certain number of marks to every essay; the essay obtaining the highest total to get the prizes. Every candidate shall furnish at least two copies of his production for the convenience of the Committee. The Committee shall be empowered to give a prize of not less than 50 rupees and not more than 200 rupees to the competitor whose marks shall be next in number to the prize-man's, *dummodo proxime accesserit.*

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(45)

Page 363.

Extract from letter No. 558, *dated the* 19*th September* 1868, *from the Secretary to the Government of India, Home Department, to the Secretary to the Government of Punjab.*

"4. The special objects of the proposed University are to afford encouragement to the enlightened study of Oriental languages and literature, the improvement and extension of the vernacular literature of the Punjab, and the diffusion of Western knowledge through the

medium of the vernaculars. And the principal measures proposed for the attainment of these objects are the following :—

The establishment of fellowships and scholarships, tenable by persons undertaking to devote themselves to the pursuit of literature and science.

The bestowal of rewards for good vernacular translations and compilations from European standard works, for original treatises in Oriental languages on subjects of importance, and for works of compositions distinguished by excellence of style.

The establishment of a Collegiate Department in connection with the University, or the grant of pecuniary assistance to other colleges conducted on a system conformable with the principles of the University.

5. As regards the conferment of degrees, it is proposed to make a thorough acquaintance with the vernacular an indispensable condition for obtaining any degree, fellowship, or other honour. Provision is at the same time to be made for duly recognizing and honouring proficiency in English unaccompanied by a knowledge of the Oriental languages.

6. His Excellency the Governor General in Council is of opinion that the general principles on which these proposals are based are sound. . . .

8. For these reasons, the Governor General in Council thinks that the present movement in the Punjab is one which deserves the sympathy and the substantial help of the Government of India."

APPENDIX H.

OPINIONS—NORTH-WESTERN PROVINCES.

(46—48)

Sir W. W. HUNTER'S EDUCATION COMMISSION.

The North-Western Provinces and Oudh Provincial Committee's Report.

Extract from the remarks by the Rev. J. H. Badden, Almora, upon education in the Province of Kumaun.

Page 395.

From the predominant attention paid in the higher grades to the English language, there is undoubtedly at present a rivalry between it and the vernacular, the immediate effect of which is unduly to depreciate, disparage and deteriorate the latter. Now if, as has been shown, primary education can only be carried on in the vernacular, it is evident that it ought to be organized on the principle of counteracting, as far as possible, the injurious tendency referred to. It is an essential condition of its own existence that it should cultivate in all possible ways its own vernacular, and do all it can for the formation of healthy, instructive and improving vernacular literature. But the question is whether the higher grades of education should not also be organized on the same principle.

Sir W. W. HUNTER'S EDUCATION COMMISSION.

The North-Western Provinces and Oudh Provincial Committee's Report.

Extract from the answers to the Commission's Questions prepared by Babu Biseshwara Mitra, Esq., Pleader, High Court, North-Western Provinces.

The reason for the anomalous state of things I complain of seems to me to be obvious. The rudimentary portion of a boy's education must be imparted to him in his own vernacular, in the language in which he thinks. It seems to me to be mere waste of time and energy to seek to teach a boy general subjects of instruction in a language which he can only understand by means of translation into another language which is his mother-tongue. The result of this method of instruction seems to be highly deplorable. A large number of boys have to leave these schools unable to prosecute their studies beyond a certain point, and they go away having acquired only a useless

smattering of the English language. The best portion of their time has been frittered away, not in storing their mind with facts, which might properly be said to constitute the elements of real education, but in a vain endeavour to *unlearn* that which is most natural in order to *seek to learn* that which can only be learnt by a highly artificial process. They are thus neither prepared for receiving the benefits of University education, nor can they be said to have done much in the way of acquiring general knowledge of some practical value.

One of the great principles to be observed in the art of teaching—in fact the most important principle—is to impart instruction in the manner in which the facts taught can be most easily conveyed to the comprehension of young minds. That which is readily understood will be easily and long retained. The solution of the problem, whether it is easier to suggest facts to a boy's understanding in his own vernacular, or in a foreign language, admits of no difficulty. What I ask for is that the Department of Public Instruction, and persons charged with the task of educating youths in this country, do once for all recognise the exact importance of the principle I have tried to elucidate. If the instruction sought to be imparted to the boys in classes teaching up to the standard of middle-class schools, is to be of any real value and permanent advantage to them, whether in their after-life in the world, or in their college career, I submit that the vehicle of instruction must be in the vernacular, so as to ensure the easy comprehension and retention of facts taught to them. For instance, you want to teach a lad of ten or eleven years of age, and of average intelligence, the facts of Indian history. Now, if you teach him those facts in English, what do you do? You lead the youth, however gently, to dash from his mind impressions as they come uppermost in his own vernacular, in order that he should receive those very ideas in a form in which they were not naturally presented to his mind before. Repeat the same process and what happens:—an idea pure and simple in itself is made complex in the course of its formation, before it is conveyed to the young mind in the shape you wish it to be received. It is not sufficient answer to say that a certain degree of success has been achieved by the English schools. A little observation and reflection will enable any unprejudiced person to perceive that if the facts constituting the average *quantum* of

knowledge taught in these schools be remembered by the boys at all, the reproduction of the impressions of those facts will, in the case of those who have not the capacity to think in English, be in their vernacular. I may also add that only so much of the total quantity of facts taught will be remembered by them as the boys have learnt to understand and retain in their own language.

I beg respectfully to commend the above observations to the serious consideration of the Education Commission. If the objection I have urged against the English school system be deemed valid, I would suggest the adoption of the following measures :—

First.—The enforcement of a uniform rule that the teaching of all subjects of general instruction shall be in the vernacular, in all institutions and classes educating up to the standard of the middle-class schools. This will render necessary the abolition of all junior classes in English schools, except the first two or three, to be kept up for the purpose of preparing boys for the University entrance examination. In all middle-class schools, English will be taught as a language. There will thus be no necessity for keeping in English schools more than a certain number of classes absolutely necessary for teaching the subjects required for Matriculation. I would even go so far as to suggest that the rules of English grammar might, in the first instance, be taught to the boys in the vernacular; and when they are able to understand the construction of easy sentences, then they should be entrusted with the study of English grammar in English. My idea is principally derived from the method of teaching Latin grammar and composition so generally adopted in the schools in England. English composition can very easily be learnt from text-books written on the plan of Henry's Series of Latin Books. The nearest approach to such text-books have been made in this Province by Mr. Stapley, and Babu Mathura Prasad Misra, but there is great room for improvement.

Secondly.—The separation of the English schools from the middle-class schools throughout the country. In the former class of institutions general instruction will be given in English, a second language being taught at the option of the boys; whereas in the latter, general instruction will be given in the vernacular, English being treated as a second language. In that case, boys who have no ambition to enter on a college career will regard their education as completed as soon they have reached the highest stage of knowledge attainable in the middle-class schools.

High education, in the sense in which it is at present understood, must for years to come be given in English. Hence the necessity of maintaining English schools. These schools should not therefore be regarded as places for giving secondary instruction. Let them be rated at their real worth. Regard them as feeders for high education and nothing else. I would divide all educational institutions into three classes and define their objects thus :—

1*st*. Primary Schools.—The object of these schools is to impart elementary instruction (reading, writing and arithmetic) to the largest possible number of the people.

2*nd*. Middle-class Schools—These might either be purely vernacular or Anglo-vernacular, according as English is or is not taught in these schools. These institutions are chiefly intended for the bulk of the middle-class. Here the standard of instruction given should be of such a character as to convey a knowledge of facts generally useful in all the practical concerns of life.

3*rd*. High Educational Institutions, *viz*., all colleges teaching the subjects prescribed by the University and English schools kept up for the purpose of preparing young men to enter into the college. In my opinion both the college and the English school should be regarded as one institution. In places where Government maintains a college, the English school might be attached to such college ; and the whole institution could be then supervised and controlled by one agency. This measure can be recommended on the ground of economy. The above three classes of institutions should be treated, as far as possible, as distinct systems of instruction.

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(48)

Sir W. W. HUNTER'S EDUCATION COMMISSION.

The North-Western Provinces and Oudh Provincial Committee's Report, &c.

Extract from the evidence of Pandit Lakshmi Shankar Misra, Esq.

Knowledge of any kind imparted through the medium of one's mother-tongue is sure to be grasped sooner and retained longer. Many students are apt to learn a good deal by heart in English without understanding the sense of it, and consequently the knowledge they retain is necessarily defective. If the object in view be to store the minds of the students with useful knowledge, it is desirable that this knowledge should be imparted by means of the vernaculars, especially in the secondary schools where the students' knowledge of English language itself is so limited.

APPENDIX I.

STANDARDS OF PRIMARY, MIDDLE AND HIGH SCHOOLS, INCLUDING THE MATRICULATION EXAMINATION, BOMBAY.

(49)

NOTE.—The Standards for Marathi and Gujrati Primary Schools and those for Anglo-Vernacular Schools have been kindly supplied by the Hon'ble Mr. Edward Giles, M.A., Director of Public Instruction, Bombay.

GRANT-IN-AID CODE (1887).

SCHEDULE E.

STANDARDS OF EXAMINATION FOR MARATHI PRIMARY SCHOOLS.

(1).—Standards for Boys' Schools.

Standard for Infant Classes.

Suitable instruction in infant classes may include the following :—

(*a*).—Repeating anks up to 100 and Multiplication table up to 10×10.

(*b*).—Reading the simple letters of the Balbodh and Modi alphabets.

(*c*).—Simple instruction in the form, colour, and use of common objects.

(*d*).—Occasional narration by the head teacher of simple and interesting stories.

(*e*).—Recitation and singing in unison of simple household songs

(*f*).—Infant drill and exercises.

Marks. Standard I.

100 1st Head—Anks up to 100. Multiplication table up to 30×10, and Pavki and Nimki. Use of Arithmeticon. Addition and Subtraction of numbers less than 12 to be done mentally.

100 2nd Head—Reading 1st Balbodh Book. Recitation of the Poetry, and singing in unison. Object lessons.

100 3rd Head—Modi and Balbodh Barakhadya complete. Writing on black board or slate words of simple letters in Balbodh and Modi.

Standard II.

100 1st Head—75 (*a*).—In addition to Standard I., Paunki, Savayki, Didki, and Adichki, Notation and Numeration up to 1,000,000. Addition and Subtraction of numbers of not more than five figures. Multi-

N.B.—In all cases where departmental books are named, books of equal difficulty and of recognized merit will be accepted by the Department.

Marks.

plication and Division of similar numbers by numbers of not more than three figures.

25 (*b*).—Easy mental arithmetic involving questions in Ujalni prescribed for Standard I.

100 2nd Head—Reading 2nd Balbodh and 1st Modi Books, with understanding of the part read. The Poetry to be repeated.

100 3rd Head—50 (*a*).—Writing to dictation in Modi and Balbodh 2 lines from the book read. The words to be neatly and separately written and in a bold style.

50 (*b*).—Modi large hand pustis containing at least 12 letters of the kitta to be produced.

100 4th Head—Knowledge of what a map is; the four cardinal points; the boundaries, mountains, rivers, talukas, chief towns, made-roads, railways, &c., of the collectorate or State to be pointed out on the map.

STANDARD III.

100 1st Head—75 (*a*).—In addition to Standard II., tak, seers, maunds, payali and annas. Reduction and four compound rules according to the English and Native systems. Native tables of money, weight, measure and capacity.

25 (*b*).—Mental arithmetic involving questions in Ujalni prescribed for Standards I. and II.

100 2nd Head—Reading third departmental book in Bálbodh and 2nd in Modi with understanding of the part read and meaning of words. Parts of speech to be understood and pointed out. The poetry in the reading book to be understood and repeated.

100 3rd Head—50 (*a*).—Writing to dictation in Balbodh and Modi 3 lines from the book read.

Marks.

50 (*b*).—Modi medium hand, pustis containing at least 20 letters of the kitta to be produced (the pustis of the previous 12 months).

100 4th Head—Definitions of geography to be learnt and understood. Geography of the Presidency, Boundaries, natural and political divisions, mountains, rivers, capital towns, ports and main roads to be pointed out on the map.

STANDARD IV.

(Standard after passing which boys are allowed to study English.)

100 1st Head—75 (*a*).—In addition to previous standards, Simple and Compound Proportion, Simple Interest and Vulgar Fractions. English tables of money, weight, measure and time.

25 (*b*).—Easy mental arithmetic, involving the use of Native tables in Standard III.

100 2nd Head—75 (*a*).—Reading the 4th Departmental Book, with understanding of the part read and meaning of words. Elementary Grammar and Simple Parsing. 150 lines of Poetry to be repeated and understood.

25 (*b*).—Reading Mody 3rd book or easy manuscripts from B. File.

100 3rd Head—50 (*a*).—Writing to dictation in Balbodh and Modi 4 lines from the book read.

50 (*b*).—Modi full copy-books to be produced (small hand).

100 4th Head—50 (*a*).—History of the Province.

50 (*b*).—Knowledge of the map of India, with particular knowledge of the Bombay Presidency.

Marks.

STANDARD V.

100 1st Head—75 (*a*).—In addition to Standard IV., Decimal Fractions, Compound Interest and Discount.

25 (*b*).—Mental Arithmetic. Harder examples.

100 2nd Head—75 (*a*).—Reading the 5th Departmental Book, with understanding of the subject-matter and meaning and derivations of words. Laghuvyakaran, 58 pages and Parsing. 200 lines of Poetry to be repeated and explained.

25 (*b*).—Reading ordinary Modi papers brought by the Examiner.

100 3rd Head—40 (*a*).—Writing to dictation in Balbodh and Modi 5 lines from the book read.

60 (*b*).—Writing Modi current hand. A full copy-book to be shown. Modes of writing private letters, bond, &c., to be known.

100 4th Head—50 (*a*).—Outlines of History of India up to A.D. 1800.

50 (*b*).—In addition to Standard IV., general knowledge of the maps of Asia and Europe, and some acquaintance with the physical and political geography of the countries contained in them.

STANDARD VI.

100 1st Head—40 (*a*).—Arithmetic complete.

30 (*b*).—Euclid Book I.

30 (*c*).—Native accounts.

100 2nd Head—40 (*a*).—Reading and explaining the 6th Departmental Book. Recitation of 300 lines of Poetry.

Marks.

30 (*b*).—Explanation of the Poetry. Grammar with easy questions in Prosody and Etymology.

30 (*c*).—Reading Modi papers with fluency (papers to be brought by the Examiner).

100 3rd Head—60 (*a*).—Writing in current Modi an abstract or report or letter on some story or incident read or told by the Examiner, or an essay.

40 (*b*).—Handwriting, separation of words, and punctuation as shown in the above.

100 4th Head—50 (*a*).—History of India complete, with some information about the system of Government.

50 (*b*).—In addition to previous standards, General Geography and Elementary Physical Geography of the world, inclusive of terms used in relation to the terrestrial globe, such as equator, poles, tropics, latitude, and longitude, and of natural phenomena, *e.g.*, seasons, night and day, eclipses, tides, climate, rains, dew, &c. An out-line map of India, with any Presidency, large province or Native State defined, or with mountains, large rivers or towns marked as named by the Examiner.

100 5th Head—Sanitary Primer.

N.B.—(1)—The teaching of the Sanitary Primer is not compulsory in aided schools.

(2)—Theoretical Mensuration may be taken up as an optional subject (50 marks).

(iii) Special Standards for Rural Schools.

(Commonly called "Modi Standards.")

The Standard for Infant Classes is the same as for Ordinary Schools.

Marks.

Standard I.

100 1st Head—Anks up to 100. Multiplication table up to 30×10, and Pavki and Nimki. Addition and Subtraction of numbers less than 12 to be done mentally. Use of the Arithmeticon.

100 2nd Head—Reading 1st Balbodh book, recitation of the poetry in it and singing in unison. Object lessons.

N.B.—In all cases where Departmental books are named, books of equal difficulty and of recognized merit will be accepted by the Department.

100 3rd Head—Modi and Balbodh Barakhadya complete. Writing on black board or slate words of simple letters in Balbodh and Modi.

Standard II.

100 1st Head—75 (*a*)—In addition to Standard I., Paunki, Savayki, Didki and Adichki. Notation and Numeration up to 1,000,000. Addition and Subtraction of numbers of not more than five figures. Multiplication and Division of similar numbers by numbers of not more than three figures.

25 (*b*)—Easy mental arithmetic involving questions in Ujalni prescribed for Standard I.

100 2nd Head—Reading 2nd Balbodh and 1st Modi books, with understanding of the part read. The Poetry to be repeated.

100 3rd Head—50 (*a*)—Writing to dictation in Modi and Balbodh 2 lines from the book read. The words to be neatly and separately written and in a bold hand.

Marks.

50 (*b*)—Modi large hand. A full copy-book containing all the letters of the kitta to be shown.

STANDARD III.

100 1st Head—75 (*a*)—In addition to Standard II., Tak, Seers, Maunds, Payali, and Annas. Reduction and four Compound Rules according to the English and native systems. Native tables of money, weight, measure and capacity.

25 (*b*)—Mental arithmetic involving questions in Ujalni prescribed for Standards I. and II.

100 2nd Head—Reading 2nd Modi book with understanding of the part read and meaning of words. The Poetry in the book to be understood and repeated.

100 3rd Head—Writing to dictation in Modi five lines from the book read. Modi medium hand. A full copy-book to be produced.

100 4th Head—Definitions of Geography to be learnt and understood. Knowledge of what a map is. Map of the Collectorate.

STANDARD IV.

100 1st Head—75 (*a*)—In addition to Standard III., Simple and Compound Proportion and Simple Interest.

25 (*b*)—Mental arithmetic involving questions in Native tables of weight, money, capacity, &c.

100 2nd Head—Reading 3rd Modi Book, with understanding of the part read and meaning of words. 150 lines of Poetry to be repeated and understood. Modes of writing private letters to be known.

Marks.

100 3rd Head—Writing to dictation in Modi 7 lines from the book read. Modi small hand. A full copy-book to be shown.

100 4th Head—Elementary Geography of the Pesidency. Boundaries, rivers, mountains, railways, principal towns, &c., to be pointed out on the map.

STANDARD V.

100 1st Head—40 (*a*)—In addition to Standard IV., Compound Interest, Discount and Vulgar Fractions.

30 (*b*)—Mental arithmetic complete.

30 (*c*)—Simple book-keeping. Calculation of interest of a khata.

100 2nd Head—Reading Modi manuscript papers from B. File or similar papers brought by the Examiner with fluency, and giving the substance of the paper read.

100 3rd Head—Writing in Modi current hand a simple letter or report on a given subject. Modes of writing private letters, bonds, &c., to be known.

100 4th Head—50 (*a*)—History of the province.

50 (*b*)—General Geography of India, with boundaries, mountains, rivers, capital towns, ports and main roads to be pointed out on the map.

100 5th Head—Sanitary Primer.

N.B.—The teaching of the Sanitary Primer is not compulsory in aided Schools.

GRANT-IN-AID CODE (1887).

SCHEDULE F.

STANDARDS OF EXAMINATION FOR GUJARATI PRIMARY SCHOOLS.

(i) STANDARDS FOR BOYS' SCHOOLS.

Standards for Infant Classes.

Suitable instruction in infant classes may include the following :—

(*a*)—Repeating Anks up to 100 and Multiplication table up to 10 × 10.

(*b*)—Reading the simple letters of the Gujarati Alphabet.

(*c*)—Simple instruction in the form, colour, and use of common objects.

(*d*)—Occasional narration by the head teacher of simple and interesting stories.

(*e*)—Recitation and singing of simple household songs.

(*f*)—Infant drill and exercises.

Marks.

STANDARD I.

100 1st Head—Anks as in Deshi Hisab, Part I., up to Savaya inclusive. Use of the Arithmeticon.

100 2nd Head—Reading 1st Book. Singing in unison. Object lessons.

100 3rd Head—Barakhadi complete. Writing the lessons read with chalk-powder and water on a board or slate.

STANDARD II.

100 1st Head—In addition to Standard I.—

50 (*a*)—Anks up to Paya, Dhats of current coins, Seers, and Maunds.

50 (*b*)—Numeration and Notation up to 1,000,000. Sums in the four simple rules of not more than 4 figures.

Marks.

100 2nd Head—Reading the whole of the Second and Third Books with explanation of the part read. Poetry to be repeated.

100 3rd Head —50 (*a*)—Dictation of words of two syllables with compound letters in Gujarati, on slate.

50 (*b*)—Writing large current hand. Copy Slip No. I. Full slate or copy-book to be shown.

100 4th Head.—Knowledge of what a map is, the four cardinal points, Map of Collectorate, Prant, or State. Boundaries, sub-divisions, mountains, rivers, towns to be pointed out.

STANDARD III.

100 1st Head.—In addition to Standard II.—

50 (*a*)—Anks complete, except Dhinchas and Dhalias. Easy mental arithmetic, *i.e.*, Deshi Hisab, Part II. The Seriam, Manikam, Khandinam, Sonarupanam, and Jaminnam Lekhams.

50 (*b*)—Four Compound Rules and Reduction (Native tables).

100 2nd Head.—Reading the whole of the Fourth Departmental Book, with understanding of the part read. 150 lines of Poetry to be repeated and explained. Parts of Speech to be pointed out.

100 3rd Head.—Gujarati Dictation of 5 lines from the book read. Writing Copy Slip No. 2. A full writing-book or slate to be shown.

100 4th Head.—50 (*a*)—Geography of the Presidency, Boundaries, Native States, mountains, rivers, zillas, towns, ports, &c., to be pointed out on the map.

50 (*b*)—History of Gujarat up to the end of the Rajput period.

N.B.—In all cases where departmental books are named, books of equal difficulty and of recognized merit will be accepted by the Department.

Standard IV.

(Standard after passing which, boys are allowed to study English.)

Marks.

100 1st Head.—In addition to Standard III.—

60 (*a*)—Englishs tables of money and weight. Simple and Compound Proportion, Simple Interest and Vulgar Fractions.

40 (*b*)—Mental Arithmetic, *i.e.*, Rules from Deshi Hisab, Part II., according to the Zilla, Lugadam, Ghas, Naliam, Musara, Kata, Tolbardan, Vigham and Ghaun.

100 2nd Head.—80 (*a*)—Reading the whole of the Fifth Departmental Book with understanding of the part read and meaning of words. 200 lines of Poetry to be repeated and understood. Simple Parsing and the Declensions, as in any small grammar.

20 (*b*)—Reading a well-written manuscript.

100 3rd Head.—60 (*a*)—Writing to Dictation in Gujarati and Balbodh respectively three lines from the book read.

40 (*b*)—Hand-writing as in Copy-book No. 3.

100 4th Head.—50 (*a*)—History of India, Mahomedan Period, with special reference to the History of Gujarat.

50 (*b*)—Knowledge of the Map of India, with particular knowledge of the Bombay Presidency.

Standard V.

100 1st Head.—In addition to previous Standards—

60 (*a*)—Decimals, Compound Interest and Discount.

40 (*b*)—Mental Arithmetic, *i.e.*, Deshi Hisab, Part II. Revision of all the Lekhams with fractional numbers and Interest.

Marks.

100 2nd Head.—70—(*a*)—Reading the Sixth Departmental Book with understanding of the part read and meaning of words. 250 lines of the Poetry of the book to be repeated and understood. Grammar—advanced Parsing, the Conjugations, &c., as in a small grammar. Hope's Grammar complete, except Syntax. Easy Etymology.

30 (*b*)—Reading an ordinary current hand (paper to be brought by the Examiner).

100 3rd Head.—40 (*a*)—Writing to Dictation in Gujarati and Balbodh respectively four lines from the book read.

20 (*b*)—A full writing-book (current hand) to be shown. Copy-book No. 4.

40 (*c*)—Writing a simple letter. Modes of writing private letters, bounds, &c., to be known.

100 4th Head.—50 (*a*)—Add to previous standards, History o India up to 1800.

50 (*b*)—Add to previous standards, maps of Asia and Europe, with general information as in previous standards. Drawing a map of the Presidency.

STANDARD VI.

100 1st Head.—40 (*a*)—Arithmetic complete.

30 (*b*)—Euclid Book I.

30 (*c*)—Native accounts.

100 2nd Head.—40 (*a*)—Reading and explaining the Seventh Departmental Book. Recitation of 300 lines of the Poetry.

30 (*b*)—Explanation of the Poetry. Grammar with easy questions in Prosody and Etymology.

30 (*c*)—Reading manuscripts with fluency (papers to be brought by the Examiner).

Marks.

100 3rd Head.—60 (*a*)—Writing in current hand an abstract, or report, or letter on some story or incident read or told by the Examiner, or an essay.

40 (*b*)—Hand-writing, separation of words and punctuation in the above.

100 4th Head.—50 (*a*)—History of India complete, with some information about the system of Government.

50 (*b*)—In addition to the Geography of previous standards, general Geography of the World, elementary Physical Geography. Knowledge of natural phenomena, such as the seasons, rain, dew, climate, tides, &c. An outline Map of India with any Presidency, large Province, or Native State defined, or with mountains, large rivers, and towns marked as named by the Examiner.

N.B. (1)—Theoretical Mensuration may be taken up as an optional subject (50 marks).

(2)—The Sanitary Primer is a compulsory subject in every Government school teaching Vernacular Standard VI. (50 marks).

. . .

(iii)—Special Standards for Rural Schools.

Standard for Infant Classes.

Suitable instruction in infant classes may include the following :—

(*a*) Repeating Anks up to 100 and Multiplication table up to 10×10.

(*b*) Reading the simple letters of the Gujarati Alphabet.

(*c*) Simple instruction in the form, colour and use of common objects.

(*d*) Occasional narration by the Head Teacher of simple and interesting stories.

(*e*) Recitation and singing of simple household songs.

(*f*) Infant drill and exercises.

N.B.—In all cases where departmental books are named, books of equal difficulty and of recognized merit will be accepted by the Department.

Marks.

STANDARD I.

100 1st Head.—Anks as in Deshi Hisab up to Hadias, excepting Ektrisa. Palakhans should be readily answered. Use of the Arithmeticon.

100 2nd Head.—First book complete. Singing simple songs. Object lessons.

100 3rd Head.—Writing on board or slate with a reed-pen, Gujarati Alphabet and Barakhadi and words occurring in the First Book.

STANDARD II.

100 1st Head.—In addition to Standard I.—

40 (*a*).—Anks, Utha, Paya, Ardha, Pona.

60 (*b*).—Numeration and Notation up to 1,000,000. The Addition and Subtraction of numbers of not more than five figures. Easy examples in Addition and Subtraction to be done mentally. Multiplication and Division by numbers of not more than three figures.

100 2nd Head.—Reading the Second Book complete with understanding of the part read. Poetry to be repeated.

100 3rd Head.—50 (*a*)—Dictation in Gujarati of words from the lessons read.

50 (*b*)—Writing large current hand on slate, or board, with a reed-pen from a copy set by the Teacher.

STANDARD III.

100 1st Head.—In addition to Standard II.—

60 (*a*)—Dhats of current coins, current weights, and other Native tables Lekhams, Seriam, Manikam, Khandinam, Sona-Rupanam. Reduction. The four Compound Rules involving Native tables of money, weight, measure and capacity, and easy sums in the Addition and Subtraction of An Pan.

Marks.

40 (*b*)—Easy sums of Multiplication and Division which can be worked mentally by the Anks.

100 2nd Head.—Reading the Third Book complete with explanation of the part read. Poetry lessons to be repeated and explained.

100 3rd Head.—50 (*a*)—Dictation in current Gujarati hand, of five lines from the lessons read. Learning to read Balbodh Alphabet and Barakhadi.

50 (*b*)—Writing in ink, a large current hand.

100 4th Head.—Geography of the Zilla or Agency (from a map).

STANDARD IV.

100 1st Head.—In Addition to Standard III,—

50 (*a*)—Multiplication and Division of An Pan, Simple Rule of Three, and Simple Interest.

50 (*b*)—Mental Arithmetic, Desi Hisab, Part II., pages 1—26 (according to local wants) with Ghas and Musara.

100 2nd Head.—70 (*a*)—Reading of the Fourth Book complete with understanding of the part read. 100 lines of Poetry to be repeated and explained, pieces of different metres being selected.

(*b*)—Reading, in fairly-written current hand, of letters, petitions, and reports.

100 3rd Head.—50 (*a*)—Dictation of five lines in current Gujarati from the book read.

50 (b)—Writing letters—ચીઠી-કાગળ, કંકોત્રી, બાકી બ્યાજનો કાગળ, &c., in a fair hand: full copy-book to be shown.

100 4th Head.—Geography of Gujarat, including Kathiawar and Cutch (from a map).

Marks. STANDARD V.

100 1st Head—In addition to Standard IV.—

40 (*a*)—Harder examples in Simple and Compound Proportion, Simple and Compound Interest, and Proportional Parts, Measurement of Land (by acre, guntha).

N.B.—In all cases where departmental books are named, books of equal difficulty and of recognized merit will be accepted by the Department.

25 (*b*).—Mental Arithmetic—all preceding Lekhams, now involving fractional numbers; Lekhams of Tolbardan and Vyaj.

35 (*c*).—Calculation of interest of a Khata, knowledge of the forms Rojmel and Khatavahi.

100 2nd Head—70 (*a*).—Reading Fifth Book complete with explanation of the part read. 100 lines of Poetry to be repeated and explained.

30 (*b*).—Reading rough current hand.

100 3rd Head—40 (*a*).—Dictation of five lines in current hand from the book read.

60 (*b*).—A knowledge of forms of agreements (to be written in ink in good current hand.) ગીરોખત, વેચાણખત, ફારગતી, ગણોતનામું, વસીયતનામું, પાવતી, કરજાઉખત, કાંધાખત, ઈજારપટો.

100 4th Head.—Geography of India (from a map).

GRANT-IN-AID CODE (1887).

SCHEDULE D.

* STANDARD OF EXAMINATION FOR ANGLO-VERNACULAR SCHOOLS.

STANDARD I. (SUCCEEDING VERNACULAR STANDARD IV.)

Marks.

100 1st Head.—Arithmetic of Vernacular Standard IV. with Vulgar Fractions and Revision of Simple and Compound Proportion.

100 2nd Head.—Vernacular.

60 (*a*) Reading the 5th Book of the Departmental Series, First half, with understanding of the part read, and meaning of words. 100 lines of the Poetry to be repeated. The Grammar of Vernacular Standard V., and simple Parsing. Easy questions in Etymology.

40 (*b*) Writing to Dictation, in fair Balbodh, 5 lines of the book read: full writing-book to be shown. (Modi small-hand.)

100 3rd Head.—History and Geography.

50 (*a*) Outlines of Indian History, with dates of chief events.

50 (*b*) Elementary general knowledge of Geography of Asia, General, Physical, and Political Geography of India, including mountains, rivers, lakes and seas; boundaries, countries, capitals, and chief cities.

100 4th Head.—English.

50 (*a*) Reading the First Departmental Reading Book, with oral Translation into Vernacular. The meaning to be understood.

25 (*b*) Spelling 5 words in the book read. Marathi equivalents be written.

* The *Vernacular* heads are those or Marathi District, and apply elsewhere *mutatis mutandis*, *e.g.*, in an Gujarati School the writing under the 2nd head will be Gujarati instead of Balbodh or Modi.

25 (*c*) Writing easy words in large or text hand. Filled copy-book to be shown.

Marks. STANDARD II.

100 1st Head.—Arithmetic.

Add to the Arithmetic of Standard I., Decimal Fractions.

100 2nd Head.—Vernacular.

60 (*a*) Reading the Fifth Book of Departmenal Series, Second half, with understanding of the part read, and of the meaning of words. 100 lines of the Poetry to be repeated. The Grammar of Vernacular Standard VI. except Syntax.

40 (*b*) Writing to Dictation in fair Balbodh, 5 lines from the book read. Modi writing-book to be shown.

100 3rd Head.—History and Geography.

50 (*a*) Revision of Standard I., and History of India to Battle of Panipat, 1761.

40 (*b*) Revision of Standard I., with more detailed knowledge of Asia and India. Elementary knowledge of the geography of the world with principal, natural and political divisions; situations of capital cities.

100 4th Head.—English.

40 (*a*) Reading the Second Departmental Reading Book, with oral Translation into the Vernacular, giving meaning of words, and distinguishing Parts of Speech. Meaning to be understood.

20 (*b*) Writing text or half test hand. Filled copy-book to be shown.

40 (*c*) Written Translation into English of 5 short and easy sentences from the Second Reading Book or Standard Translation Book.

N.B.—In all cases where departmental books are named, books of equal difficulty and of recognized merit will be accepted by the Department. The whole amount of Reading Books appointed need not be required if the Inspector is satisfied that the amount offered is, considering the manner in which it has been prepared, a sufficient year's work.

STANDARD III. (TO BE PASSED BEFORE ENTERING A HIGH SCHOOL.)

Marks.

100 1st Head.—Arithmetic.

Add to the Arithmetic of Standard II. Simple Interest and Practice.

100 2nd Head.—Vernacular.

40 (*a*) Reading with understanding 100 pages of Sixth Book of Departmental Series, and 150 verses of Raghunath Pandit, or a similar Poet. 100 lines of Poetry by heart. Grammar of Vernacular Standard VI. Prayogs as in a large Grammar.

20 (*b*) Writing 5 lines in good Balbodh, to Dictation from the book read. Full writing-book to be shown (good Modi hand).

40 (*c*) Written translation of 5 lines from the English Reading Book.

100 3rd Head.—History and Geography.

50 (*a*) Revision of Standards I. and II., and History of India.

50 (*b*) Revision of previous Standards. Map of India to be drawn from memory, with political divisions to illustrate History.

100 4th Head.—English.

40 (*a*) Reading the Third Departmental Reading Book, with *viva voce* explanation in the Vernacular, and simple Parsing in English.

20 (*b*) Writing half text or small hand. Full writing-book to be shown.

40 (*c*) Written Translation into English of five short sentences from the 3rd Vernacular Book or a Standard Translation Book. Spelling to be taken into account.

STANDARD IV. (FIRST STANDARD OF THE HIGH SCHOOL COURSE.)

Marks. *(Questions and Answers to be in English.)*

100 1st Head.—Mathematics.

60 (*a*) Add to the Arithmetic of Standard III. Compound Interest and Discount.

40 (*b*) Algebra, 4 Rules Integral, easy examples.

100 2nd Head.—Vernacular and Classical Languages.

Vernacular.

50 (*a*) 150 pages from a Standard Vernacular Prose Author, and 200 lines of Vaman or Moropant, or a similar Poet (not learned previously) with special regard to Marathi Grammar and Idiom. 100 lines of Poetry by heart. Rules of Sandhi. Declensions and Conjugations as in a large Grammar.

50 (*b*) Written Translation into Marathi (Balbodh) of about 5 lines in any school reading-book used below Standard V. at the option of the Examiner —Spelling and writing to be considered; or composing a letter (Modi).

Classic.

100 I. Sanskrit.

60 (*a*) *Viva voce* Translation into the Vernacular of the Sanskrit exercises in Lessons I.—XXIV. of the 1st Book of Sanskrit, and written translation into Sanskrit of the English exercises in the same lessons.

40 (*b*) The common rules of Sandhi, the declension of nouns substantive, and adjective, ending in a vowel as given in the 1st Book of Sanskrit (9th edition), and the special tenses of roots of the 1st, 4th, 6th, and 10th classes.

100 Or II. Latin.

60 (*a*) *Viva voce* Translation of Exercises equal in difficulty and amount to the first 30 in Henry's First Latin Book (English into Latin, and Latin into English).

Marks.

40 (*b*) The regular Declensions and Conjugations to be learnt by heart.

100 Or III. Persian.

60 (*a*) Reading and *viva voce* Translation into English or Vernacular of 25 stories of Hikayat-i-Latif (or the First Book of the Panjab Series). Conjugation in 12 forms and declensions in all the persons and both the numbers of words from the portion learnt.

40 (*b*) Dictation of 3 or 4 lines from the first five stories of Hikayat-i-Latif (or from the first 15 pages of the First Book of the Panjab Series) and Persian Copy Book No. I. (such as G. A. Munshi's).

100 3rd Head—History and Geography.

50 (*a*) Outlines of History of India in English.

50 (*b*) Elementary general knowledge of Geography of Europe with more detailed knowledge of the British Isles. Revision of Geography of Asia and India.

100 4th Head—English.

40 (*a*) Reading from easy English Classics 60 pages of Prose, and 300 lines of Poetry, with explanation of the part read in the Vernacular, Parsing and easy Etymology of words in the English book, and explanation of difficult words in English. Poetry, 100 lines by heart.

20 (*b*) Writing 5 lines to Dictation from the book read. Full copy-book, small hand, to be shown.

40 (*c*) Written Translation into English of above 5 lines from the Third Book of the Vernacular Series or from a Standard Translation Book. Spelling to be taken into account.

Marks. STANDARD V.

100 1st Head—Mathematics.

Add to the subjects of Standard IV.—

40 (*a*) Square and Cube Root and Profit and Loss.

30 (*b*) Euclid, to Book I. Prop. 32.

30 (*c*) Algebra, 4 Rules Integral, L. C. M. and G. C. M.

100 2nd Head.—Vernacular and Classical Languages.

Vernacular.

50 (*a*) A Standard Vernacular Prose Author not previously read, about 200 pages, and 300 lines from Kekavali or any similar work, with special regard to a scholarly knowledge of Marathi Grammar and Idiom. Syntax as in a large Grammar. 100 lines of Poetry by heart.

50 (*a*) Written Translation of 10 lines from the book read into the Vernacular. Composing a report on a given subject (Modi). Hand-writing, separation of words, and punctuation as shown in the above.

Classic.

100. I. Sanskrit.

60 (*a*) *Viva voce* Translation into English of the Sanskrit exercises in the remaining lessons of the 1st Book and in Lessons I.—XII of the 2nd Book of Sanskrit (6th edition), and written translation into Sanskrit of the English exercises in the same lessons.

40 (*b*) Rules of Sandhi, continued; declension of nouns substantive and adjective ending in a Consonant and of pronouns and pronomina adjectives; the potential of roots of the 1st, 4th, 6th and 10th classes and the special tenses of the roots of the remaining classes.

Marks.

100. Or II. Latin.

60 (*a*) *Viva voce* Translation of Henry's First Latin Book, or a similar book. Easy Prose passages as in the Delectus, to be selected by the Master. Parsing of simple sentences.

40 (*b*) Accidence complete.

100. Or III. Persian.

60 (*a*) Reading and *Vivâ voce* Translation of the first ten stories of the Sad Hikayat (or 20 pages of the Second Book of the Punjab Series) and the whole of the Karima with formation of the Aorist; declensions of nouns and pronouns and singulars of Arabic plurals.

40 (*b*) Written Translation into Persian of 6 sentences out of about 100 sentences taught from an easy prose book. Dictation of above 5 lines from the first eight stories of the Sad Hikayat (or 10 pages of the Second Book of the Punjab Series) and Persian Copy Book No. II. (such as G. A. Munshi's).

100 3rd Head—History and Geography.

50 (*a*) History of England to the year 1485.

50 (*b*) Revision of previous Standards. Map of any country of Asia to be drawn from memory, boundaries, mountains, rivers, and cities being marked; and in the case of India Political divisions, and lines of latitude and longitude. General Geography of America, Africa, and Oceania with special knowledge of British Foreign Possessions.

100 4th Head—English.

40 (*a*) Reading English Classics, 70 pages of Prose and 400 lines of Poetry—150 by heart—with explanation and parsing. Easy questions in Analysis of sentences, as in Morell, Part I., and easy Etymology of words in the book.

30 (*b*) Written Translation of a passage from the fourth Marathi Book or from any easy narrative in the Vernacular. Specimens of writing, as in fair note books, to be shown.

30 (*c*) Writing an English letter, private or official, or making an abstract in English of an easy story, clearly read or told.

N.B.—(1) Theoretical Mensuration may be taken up as an optional subject (50 marks).

(2) The Sanitary Primer is a compulsory subject in every Government School teaching Angol-Vernacular Standard V. (50 marks).

Marks. STANDARD VI.

100 1st Head—Mathematics.

40 (*a*) *Arithmetic*—Add to the subjects of Standard V. Mensuration.

30 (*b*) *Euclid*—Books I. and II.

30 (*c*) *Algebra*—Fractions, Simple Equations, Square and Cubic Root.

100 2nd Head—Vernacular and Classical Languages.

Vernacular.

50 (*a*) Revision of previous reading, and Dnyaneshwari Adhyaya XII. and XIII. as in Navanita with special regard to a scholarly knowledge of Marathi Grammar and Idiom (comparison with Sanskrit and English Grammar and Idiom), Etymology and easy Prosody.

50 (*b*) Translation into Balbodh of ten lines of the English Poetry read, Spelling and writing to be considered.

Classic.

100 I. Sanskrit.

60 (*a*) Translation into English of the Sanskrit exercises in Lessons XIII.—XX. of the 2nd Book of Sanskrit, 6th edition and of about 25 pages from

Marks.

the 3rd Book or from the Hitopadesh and written Translation into Sanskrit of the English exercises in the same lessons, and of about ten short English fables.

40 (*b*) The more rare and the irregular declensions; comparison of adjectives; numerals; the perfect; the two futures and the conditional; (Dr. Kielhorn's Grammar, 2nd edition, Sections 1—330; 368—379); the passive; and compound nouns.

100 Or II. Latin.

60 (*a*) *Viva voce* Translation of Cornelius Nepos (30 pages) with Grammar and Parsing.

40 (*b*) Written Translation of six lines of easy narrative chosen by the Inspector.

100 Or III. Persian.

60 (*a*) Reading, *viva voce* Translation and explanation of any one of the first three Chapters of Gulistan and Sad Hikayat from stories 11 to 30. Arabic roots, plurals and adjectives; and naming the number, person, case and tense in Persian.

40 (*b*) Written Translation into Persian of about 5 lines of any easy story from 25 stories taught out of Æsop's Fables or a similar book. Writing to Dictation 5 to 10 lines from the first 15 stories of the Chapter taught from Gulistan.

100 3rd Head—History and Geography.

50 (*a*) History of England. Revision of previous Standards.

50 (*b*) Detailed Physical and Political Geography of England. Map-drawing from memory to illustrate History. An outline map of the British Isles or any country of Europe to be drawn from memory and the boundaries, mountain ranges, rivers and cities to be marked.

Marks.

100 4th Head—English.

40 (*a*) Reading English Classics, 80 pages of prose and 450 lines of poetry (different authors from those under standard V.) : 200 lines by heart. Questions in Grammar, Analysis and Etymology.

30 (*b*) Written Translation into English of about 10 lines of Marathi prose. Specimens of writing, as in fair note books, to be shown.

30 (*c*) A short theme on a simple subject.

STANDARD VII., MATRICULATION.

N.B.—(1). The examinations under high school standards will be conducted in English, except where it is otherwise specified in the standards.

(2). Schools will not be required to present boys in both the vernacular and the classic under the 2nd Head. They may obtain the full grant under that Head for the Vernacular only, and an extra grant of like amount for the classic if offered.

(3). By Girls the following may be brought up as an alternative to the Euclid and Algebra under Standards IV., V. and VI. :—Any portion of Science or Domestic Economy treated in a popular way, equal in amount and difficulty to one of MacMillan's "Science Primers."

PROGRAMME OF STUDY FOR THE AGRICULTURAL CLASSES ATTACHED TO HIGH SCHOOLS.

Students entering the Agricultural Classes must be learning a High School Standard (*i.e.*, one of Standards IV.—VII.).

At the end of the first year students will be examined in the subjects mentioned below :—

FIRST YEAR'S COURSE.

1. Chemistry. Preparation and properties of Oxygen, Hydrogen and Nitrogen. Carbon, its varieties and properties. Carbonic Anhydride, its preparation and properties. The Chemistry of air and water. Combustion.

2. The Introductory Science Primer No. 1 by Huxley.

3. Elementary Physics. Science Primer No. 3 by Balfour Stewart to the end of page 105 (*i.e.*, omitting Electricity).

4. Agriculture by Tanner (Science Primer Series).

5. Surveying. Gunter's Chain. Calculation of areas of simple rectilineal figures. Surveying with chain and cross staff. Mode of plotting the survey.

N ..—A plot of ground of at least 10 acres in extent should be surveyed and plotted by the class and its area calculated. The plotted survey and field book should be submitted with proper authentication by each candidate.

Those students only who pass a satisfactory examination will be permitted to enter on the second year's course.

At the end of the second year the students will be examined in the course specified below :—

SECOND YEAR'S COURSE.

1. Chemistry. Science Primer No. 2 by Roscoe.

2. Physics. The whole of Science Primer No. 3.

3. Agriculture. Agricultural Text-book by J. Wrightson, F.C.S.

4. Botany. Science Primer by Hooker. (Johnston's Botanical Diagrams should also be studied.)

5. Physical Geography by Professor Geikie, Science Primer No. 4.

6. Geology by Professor Geikie, Science Primer No. 5.

7. Surveying. Construction of scales. Representative fraction. Diagonal scales. Prismatic Compass. Surveying with prismatic compass and chain. Plane table. Method of plotting surveys.

N.B.—Each candidate to submit a properly authenticated survey executed with chain and compass in class and plotted by himself (with field book of the same) and also a survey executed by the aid of the plane table.

8. Voluntary subjects in which students may obtain additional certificates :—

(1). Levelling and Surveying.

Object of Levelling. Corrections for earth's curvature and refraction. The Y and Dumpy Level and their adjustments. Levelling field book. Bench-marks. Plotting the work. The theodolite. Everest's theodolite. Precautions to be observed in using and handling a theodolite. Observing angles with the theodolite. Plotting angles by the circular protractor. Use of theodolite in Surveying.

N.B.—Each candidate to submit a properly authenticated survey in which the theodolite has been employed to take angular measurements and also a plotted section. These should be executed in class and plotted separately by each student.

(2). Physiology (Huxley's Lessons in Elementary Physiology).

(3). Botany. Oliver's Text-book of Indian Botany, Part I.

Students who pass the examination will obtain certificates, and an additional certificate will be given for each of the voluntary subjects.

Note—

(1). Classes will be formed in December of each year, and the examinations will be held in December.

(2). Boys taking up the Agricultural Course will be excused the Classical language, and, after passing the First year's course, will be excused History and Geography lessons.

(3). Boys who pass in the examination for the second year of the Agricultural Class will be eligible for admission to the College of Science, Poona, in the lower or non-University Class.

(4). The Principal of the College of Science will supply papers for the Annual Examination, and will class the pupils of the several schools in one list according to merit.

MATRICULATION.

Extract from the Bombay University Calendar for 1897-98, *Page* 41.

Candidates will be examined in Languages, Mathematics, Elementary History and Geography, and Elementary Science.

I.—Languages,—Two Papers.

1. English.
2. One of the following :—

Sanskrit.	French.	Hindustani.
Greek.	Portuguese.	Persian.
Latin.	Marathi.	Sindhi.
Hebrew.	Gujrati.	
Arabic.	Canarese.	

(Any other Language may at any time be added to this list by the Syndicate).

In English there will be one Paper, containing (1) one or more Passages for paraphrase, with, as an alternative, one or more passages for translation into English in the following Vernacular Languages, viz. :—Marathi, Gujrati, Canarese, Hindustani, Sindhi and Portuguese ; (2) Questions in Grammar ; and (3) an exercise or exercises in composition.

In the second Language there will be one Paper containing Prose Passages for translation from and into English and questions in grammar.

II.—Mathematics.—Two Papers.

1st—Arithmetic. The examples to be worked from first principles, and not merely by rules. Algebra to simple Equations inclusive, viz., Definitions and Explanations of Algebraical signs and terms ; Brackets ; Addition, Substraction, Multiplication and Division of Algebraical expressions and Algebraical Fractions ; Resolution into Factors ; Highest Common Factor and Lowest Common Multiple of two or more Algebraical expressions ; Extraction of Square Root and Cube Root ; simple Equations involving not more than two unknown quantities and Problems producing such Equations.

2nd—First four books of Euclid with Deductions.

III. Elementary History and Geography.—One Paper.

Elementary History of England and India, and Elementary Geography.

IV.—Elementary Science.—One paper.

(*a*) The Parallelogram of forces, and composition of parallel forces with experimental proofs. The mechanical powers, the straight lever, the common balance, wheel and axle, the three systems of pulleys, the inclined plane, the wedge, the screw. Easy Problems on the above.

(*b*) Chemistry, with easy Problems. Text-Book, "Roscoe's Chemistry," one of Macmillan's Science Primers ; and

(*c*) Astronomy. Text-Book "Lockyer's Astronomy," one of Macmillan's Science Primers.